2008 | Report to Congress on

Sustainable Ranges

Submitted by the Secretary of Defense
Under Secretary of Defense
(Personnel and Readiness)

2008 | Report to Congress on

Sustainable Ranges

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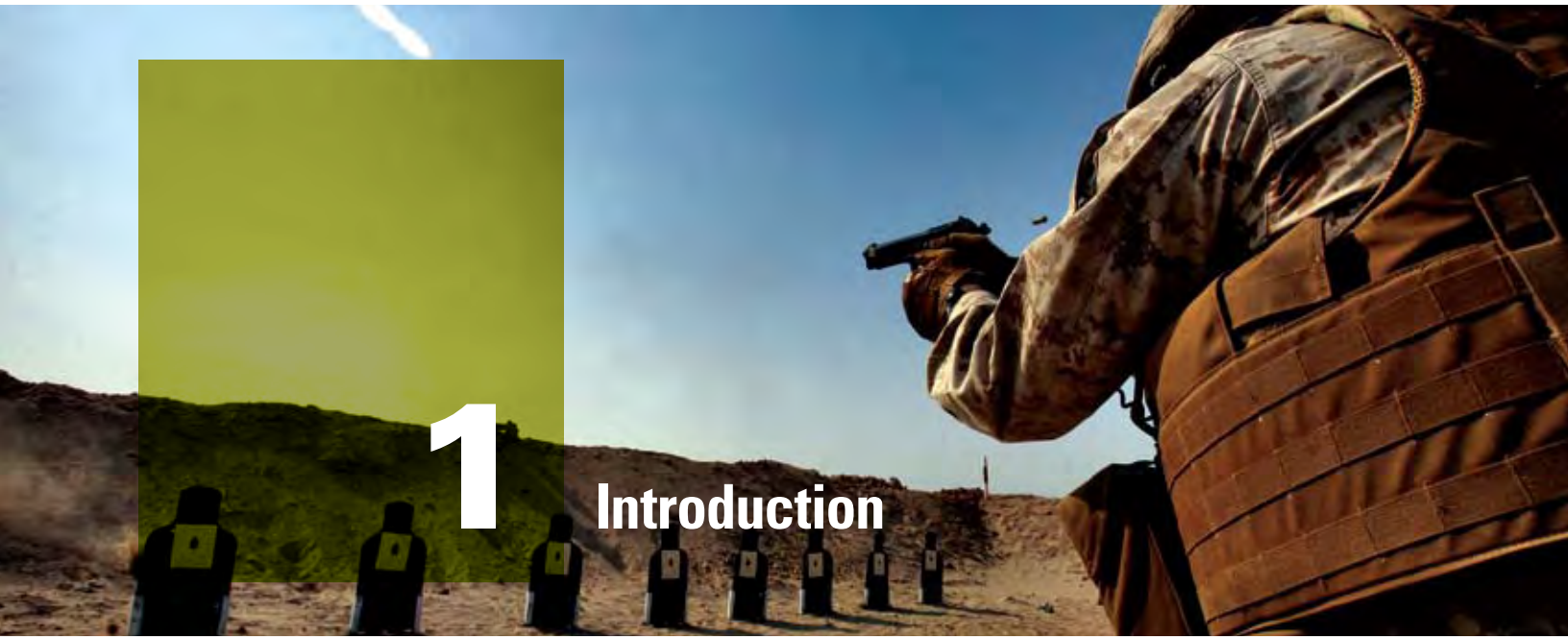


1 Introduction

1.1 Purpose

This is the fifth installment of the Department of Defense (DoD) Report to Congress on Sustainable Ranges (the Sustainable Ranges Report). The report addresses two Congressional reporting requirements under the National Defense Authorization Act (NDAA) (see Appendix A).

[1] Section 366 of the Fiscal Year (FY) 2003 NDAA as amended. Under Section 366, Congress required DoD to develop a comprehensive plan to address training constraints caused by limitation on the use of military lands, marine areas, and airspace that are available in the United States (U.S.) and overseas for training of the Armed Forces. Section 366 also required DoD to submit an annual progress Report to Congress through 2013.

[2] Section 320 of the FY2004 NDAA. Under Section 320, Congress required DoD to report on the impacts from civilian community encroachment on military installations and training and test ranges[1], as well as impacts from certain legal requirements on military readiness activities.

The *2008 Sustainable Ranges Report* represents an update to the previous four Sustainable Ranges Reports, builds on previous DoD submissions, and serves as a new baseline for future reports. Rather than revisiting the many Sustainable Ranges Initiative (SRI) details discussed in previous reports, this Report provides an update on the continued progress being made in implementing existing SRI goals and activities.

The *2008 Sustainable Ranges Report* re-establishes the baseline for future reports by:

- Analyzing program element data, such as the comprehensive range inventory
- Assessing progress made in implementing goals and actions
- Applying new standardized methods for assessing range capabilities and encroachment impacts
- Addressing funding requirements associated with implementing range sustainability initiatives
- Identifying new program directions, priorities, and management initiatives

This approach will allow DoD to build upon early SRI successes, while continually evaluating the evolving needs and requirements associated with a constantly changing environment.

The DoD's approach for ensuring the long-term sustainability of its training and testing ranges under the SRI considers a variety of related aspects and impacts. They include the training needs and requirements associated with DoD's national security mission; the adequacy of range

1 Section 366 was enacted in the Bob Stump National Defense Authorization Act for FY2003, Public Law 107-314. The terms "range" and "operational range" were given statutory definitions in the FY2004 NDAA. Consequently, the terms and coverage of Section 366 from FY2003 are not entirely consistent with the later enacted definitions. Because DoD interprets Congress' intent for Section 366 to encompass more than operational ranges (as defined in the law), and because it is DoD's objective to provide Congress with an accurate and definitive statement of our training requirements, this report does not apply to the statutorily defined terms of "range" or "operational range." While this report does use the term "range," it does so in the context of that term's usage in Section 366, which is clearly broader than provided for in the statutory definition in 10 United States Code (USC) 101(e).

resources to support the full spectrum of training missions; and limitations and restrictions on the use of land, water, airspace, and spectrum resources caused by encroachment.

The DoD notes that its Readiness and Environmental Protection Initiative (REPI) Report to Congress, required separately under Section 2822 of the FY2006 NDAA, describes in detail efforts to encourage compatible land use around military installations. The REPI report provides substantial information on how DoD has effectively employed the Congressional authority granted under Section 2684a of the FY2003 NDAA to enter into cooperative conservation agreements with private organizations and state or local governments to limit incompatible development and preserve diminishing open space around military ranges and installations. As such, the REPI report satisfies most of the FY2004 NDAA Section 320(a), (b), and (d) requirements to report on encroachment on military installations and ranges that require, or may reasonably require, safety or operational buffer areas, and on DoD's plans to respond to such encroachment.

To minimize duplication with REPI reporting efforts, the *2008 Sustainable Ranges Report* discusses encroachment issues specifically in terms of on-going efforts to quantify and assess the impact on training and testing ranges, and only briefly addresses buffering and compatible land use programs. The report continues to provide detail on actions related to Section 320 requirements that are not currently, or only briefly, addressed in the REPI report, such as reporting on specified environmental statutes.

1.2 Background

The DoD training and test and evaluation (T&E) ranges utilize land, airspace, sea surface, and undersea areas located throughout the U.S. and abroad, to include the frequency spectrum and associated infrastructure needed to satisfy DoD's national security mission. In addition to ranges exclusively owned or operated by the DoD, the U.S. military also utilizes land for training and T&E activities that is owned or managed by other agencies including the Bureau of Land Management (BLM), state-owned lands, and privately-owned lands subject to formal use agreements between the Department and land owners. The DoD also utilizes various air, sea, and undersea space in the US, foreign host nations, and international areas to maintain fully trained and ready forces.

To properly prepare U.S. forces for combat, DoD must train at ranges that encompass all the terrain, land cover, and climate conditions that military personnel and weapon systems may encounter during deployment—deserts, mountains, coastal areas, urban areas, swamps, forests, plains, and water. As such, sustaining these diverse ranges is critical to ensuring readiness. Training and T&E ranges are critical elements of military readiness as they:

- Provide the realistic environment needed for the development of tactics
- Enable increased force combat survivability and success
- Allow for the testing and demonstration of weapons systems maneuverability, reliability, and effectiveness
- Permit operational proficiency and mission readiness

To address encroachment concerns, meet new global defense posture requirements, and mitigate potential impacts on training, T&E, and readiness, DoD has developed and is implementing the SRI. This effort is consistent with DoD's Training Transformation Initiative. Both initiatives are discussed later in this report, in the context of responding to the combined requirements of NDAA Sections 366 and 320.

1.3 Report Organization and GAO Response to the 2007 Sustainable Ranges Report

As a baseline for future reports on DoD's range sustainment activities, the structure and format of this Report differs from previous submissions. The objective of this new format is to provide Congress with a concise and consistent report that highlights the continued evolution of the SRI and allows progress against Congressional reporting requirements to be easily determined. The *2008 Sustainable Ranges Report*:

- Limits discussion of Section 320 requirements to those areas not addressed in DoD's REPI Report to Congress
- Limits discussion of T&E ranges to the aspects of their use in supporting training
- Integrates Service-specific information into the main body of the report, and places background and supporting information into the appendices
- Established a baseline, and standardizes (to the appropriate extent considering Service mission differences) the criteria for assessing the impact of range capabilities and encroachment on Service-specific mission areas

2 U.S. Government Accountability Office, *Improvement Continues in DoD's Reporting on Sustainable Ranges, but Opportunities Exist to Improve its Range Assessments and Comprehensive Plan*, October 11, 2007.

NDAA Section 366 requires the U.S. Government Accountability Office (GAO) to provide Congress with an independent evaluation of DoD's annual report on sustainable ranges. In its assessment of the *2007 Sustainable Ranges Report*, the GAO acknowledged that DoD has continued to improve its reporting of NDAA Section 366 requirements, and that the Report more fully addressed Congressional requirements.[2] To further enhance DoD reporting of range requirements and capabilities assessments, and future comprehensive range sustainment plans, GAO recommended that DoD develop clear criteria and standard methods for assessing current and future training range requirements capabilities, to include adding funding information on the Services' range sustainment efforts in future reports.

The outline provided in Table 1-1 presents the revised structure of the *2008 Sustainable Ranges Report*. The table illustrates the link between report chapters and specific NDAA requirements, and identifies the chapters that address GAO's recommendations.

Table 1-1 2008 Sustainable Ranges Report Organization and Incorporation of GAO Recommendations

Chapter	Summary	NDAA Requirement	GAO 2007 Recommendation
1	Introduction Summarizes the purpose of this report, provides background information, and discusses report organization	N/A	N/A
2	Current and Future Training Requirements Provides a general overview of the processes used to develop, document, and execute training requirements, and reports on current and future training space requirements.	Section 366(a)(2)(A)	Develop clear criteria and standard methods for assessing current and future training range requirements and capabilities.
3	Adequacy of Existing Range Resources to Meet Requirements Discusses DoD's process for the systematic evaluation of the availability, accessibility, and usability of training ranges, and the quantitative assessment of their mission support capability.	Section 366(a)(2)(B) Section 320(a)(1) Section 320(b)(1)–(3) Section 320(e)	Develop clear criteria and standard methods for assessing current and future training range requirements and capabilities.
4	DoD's Comprehensive Range Sustainment Plan Provides substantive information on elements of DoD's Comprehensive Range Sustainment Plan and its status–goals/actions/milestones; office designation; funding requirements; legislative/regulatory topics; compatible land use and Resource Conservation and Recovery Act/Comprehensive Environmental Response Compensation and Liability Act/Clean Air Act (RCRA/CERCLA/CAA) compliance; readiness reporting system enhancement; range information enterprise; and range inventory.	Section 366(a)(1) Section 366(3)(A)–(D) Section 366(a)(4)(A)–(C) Section 366(b) and (c) Section 320(a)(2) and (3) Section 320(c)–(e)	Include funding information on range sustainment efforts.
5	The Way Ahead Provides initial discussion of how comprehensive range inventory and capability assessments will be used in the future to enhance range capabilities within the context of the Comprehensive Range Sustainment Plan.	Section 366(a)	Develop clear criteria and standard methods for assessing current and future training range requirements and capabilities.
6	Appendices Provides statutory NDAA language; identifies and defines acronyms used throughout the document; updates maps and inventories of DoD ranges, range complexes[3], and special use airspace (SUA); and provides supporting information on Service programs.	Section 366(c)	N/A

N/A=Not Applicable

3 The term "range complex" refers to a grouping of ranges or range areas (*e.g.,* separate impact areas on a large range), and associated air space. The term reflects the Services' longstanding practice and use of the term to enable the grouping of ranges or range areas and associated airspace for internal management purposes. The term is used differently by each Service (and that difference is thus reflected in this report). Army and Marine Corps range complexes represent the range portions of the larger Army and Marine Corps installations (excluding cantonment areas); Navy range complexes are defined as regional groupings of various land, air, and sea ranges; Air Force range complexes are defined as the airspace and land area. It is critical for readers to note that the term "range complex" has no particular relationship to the term "operational range."

2 Current and Future Training Requirements

2.1 Development of Training Requirements

The linkage between range resources and infrastructure and military readiness is fundamental. Because the ability to train in a realistic environment is directly associated with success and survival in combat, the U.S. military operates the largest and most diverse training enterprise in the world. The DoD provides Service men and women with training opportunities that cover the full range of skills needed to ensure troops are deployed with the highest possible assurance of mission success and survival. These training opportunities are founded in the availability of the correct and desired training range resources and infrastructure.

In order to ensure that the correct and desired training range resources are available with the right size, capability, and temporal aspects, range requirements need to be well articulated from the training community to the training support or range community. These range requirements are founded in and derived from training requirements.

The Military Services develop their training requirements using broadly similar, though not identical, frameworks. The framework includes an assessment of:

- The National Security Strategy of the United States
- The National Military Strategy of the United States and global security environment in which the military will operate
- Guidance for Development of the Force
- Guidance for Employment of the Force
- The Universal Joint Task List (UJTL) and Combatant Commander (CoCom) assigned Mission Essential Tasks
- Weapons and related systems that are available today and expected to be available in the near future
- The lessons learned from previous military experience, training evolutions, and experimentation

Out of this assessment, starting with overarching strategy, and filtering down into task-specific needs and requirements, the Services determine how they will operate

Figure 2-1 Training Requirement and Range Requirement Development Process

in combat in the near term. From their planned operations, based on the UJTL and the Joint Mission Essential Task List (JMETL), the Services identify and develop mission essential tasks (METs). The Services then develop training plans to ensure that their forces are proficient in executing the METs. These training plans are the foundation for the development of range resources and capabilities to support the execution of the Service's METs. Figure 2-1 details this process for the development of range requirements.

2.1.1 Assessing Current and Future Requirements

Within the overarching framework of DoD's SRI, each of the Services has developed a strategy and approach for assessing current and future training requirements in the context of their individual missions and joint operations. Common elements include assessing current and future requirements, data collection and management systems, tools to assist in assessing and quantifying encroachment impacts, and the supporting documentation and plans that guide implementation.

With regard to current training requirements, the Services maintain a comprehensive set of processes specific to their mission and command structure that are used to develop, document, and execute training objectives and requirements. These processes link training strategies and requirements to a standard training curriculum based on Service-unique and joint tasks identified in the UJTL, JMETL, and Service Mission Essential Task Lists (METLs). A wide variety of publications, including doctrinal reports, guidance documents, instructions, and annual messages or updates, prescribe the processes thoroughly and precisely.

Future training requirements can be grouped into two categories: near-term and long-term. Training requirements for the near-term can be assessed with some degree of accuracy because the Services can reasonably anticipate the near-term strategic environment, operating concepts, and technological capabilities. The ability to anticipate these elements originates from intelligence forecasting, trend analysis, training provided in current and evolving military tactics, strategic planning, educational opportunities with regard to transformational concepts, and knowledge of existing and planned system acquisition activities.

Compared to near-term training requirements, assessing long-term training requirements is significantly more challenging because of greater uncertainty surrounding the strategic environment, operating concepts, and technological capabilities. This uncertainty is somewhat tempered by the fact that platforms, weapons, and systems are becoming ever more capable: aircraft and vehicles travel farther and faster, sensors detect at longer distances, platforms accurately deliver weapons at greater distances, and communications systems carry and transmit more data. As systems capabilities continue to improve, and as military doctrine and tactics change, DoD will need to adapt and change concepts of operations for the use of range resources and capabilities to meet long-term training requirements to maintain a decisive advantage over potential adversaries.

2.2 DoD Training Transformation Program

SRI activities and efforts are related to DoD's overarching Training Transformation Program. The Training Transformation Program was developed to address near-term training challenges associated with an uncertain and increasingly complex strategic environment, as well as an increasing need for joint training and interoperability within an already constrained training environment. It provides dynamic, capabilities-based training for DoD personnel in support of evolving national security requirements across the full spectrum of integrated operations. The three capabilities of the program are described in Table 2-1.

Table 2-1 Training Transformation Program Capabilities

Training Transformation Program Pillars	Description
Joint Knowledge Development and Distribution Capability	Focuses on individual training and education to enhance an individual's ability to intuitively think "jointly."
Joint National Training Capability (JNTC)	Focuses on collective training and preparing forces by providing units and commands staff with an integrated live, virtual, and constructive (LVC) joint operational training environment.
Joint Assessment and Enabling Capability (JAEC)	Focuses on assessing Training Transformation Program performance, and supporting tools and processes, to enable and enhance joint training and assess how such training meets validated Combatant Commander readiness requirements.

For purposes of this report, the JNTC is most relevant as it addresses range sustainment and modernization efforts, as well as LVC training and the role it will play in addressing training requirements and readiness and reporting systems. Detailed information on the Training Transformation Program can be found in DoD's Training Transformation *Strategic Plan* and *FY2006–FY2011 Implementation Plan*.[4,5]

2.2.1 Joint National Training Capability

Formally established in January 2003 under *Management Initiative Decision 906*, the underlying concept of the JNTC is to train and prepare forces to operate globally through the development of a joint training infrastructure. Such a training infrastructure has four pillars, and must consist of credible and adaptive opposing forces, with instrumentation that provides a common ground truth among the participants, effective data sharing, and high quality feedback to improve the assessment of joint training events. Envisioned as a permanently installed global communications network, designed to significantly reduce the amount of time required to configure and execute training in an LVC environment, the JNTC is a significant addition to DoD's training infrastructure.

Live, Virtual, and Constructive Training

The integration of LVC training strategy and policy as a component of near-term and long-term future training requirements is particularly relevant for the purposes of this report. Reporting on LVC is responsive to the NDAA Section 366(a)(2)(B) requirement that DoD address the adequacy of current resources, including virtual and constructive training assets. An overview of LVC training and the increasingly important role it plays in providing realistic, comprehensive, and cost-effective training is detailed in the following paragraphs.

Military Commanders link overarching training strategies to executable training plans by designing and scheduling training events that create the most realistic training possible, using an appropriate combination of available LVC resources. The individual components of LVC training are identified and described in Table 2-2.

Virtual and constructive training cannot replace the value of live training; however, they can supplement, enhance, and complement live training to sustain unit proficiency.

Table 2-2 Live, Virtual, and Constructive Training

LVC Training Component	Description
Live Training	The training domain where live participants operate operational systems and platforms (including their full range of mobility) in the physical environment (land, sea, air) for which they were intended. LVC integrators must be cognizant that many parameters defining the live domain are fixed in physics rather than synthetic scenario generation, and constrained by the real environment (*e.g.,* weather) in which they are operating, to which the virtual and constructive domains must align. Simulations used in the live training domain are used to maintain scenario validity during training. These models, *i.e.* "scoring simulations, are used to automatically, in the real time, assess hard and soft weapon effects on targets; incorporating countermeasure effects and other participant actions or behaviors that affect the outcome of the event.
Virtual Training	Training involving real people operating simulated systems. Virtual simulations inject human-in-the-loop in a central role by exercising motor control skills (*e.g.,* flying an airplane), decision skills (*e.g.,* committing fire control resources to action), or communication skills (*e.g.,* as members of a C4I team).
Constructive Training	Training involving the use of simulated personnel operating simulated equipment in a computer-game style training environment. Real people make real inputs to such simulations, but are not involved in determining the outcomes. Constructive training tools permit multiple echelons of command and staff to practice execution of their normal national security mission tasks in an unconstrained exercise environment.

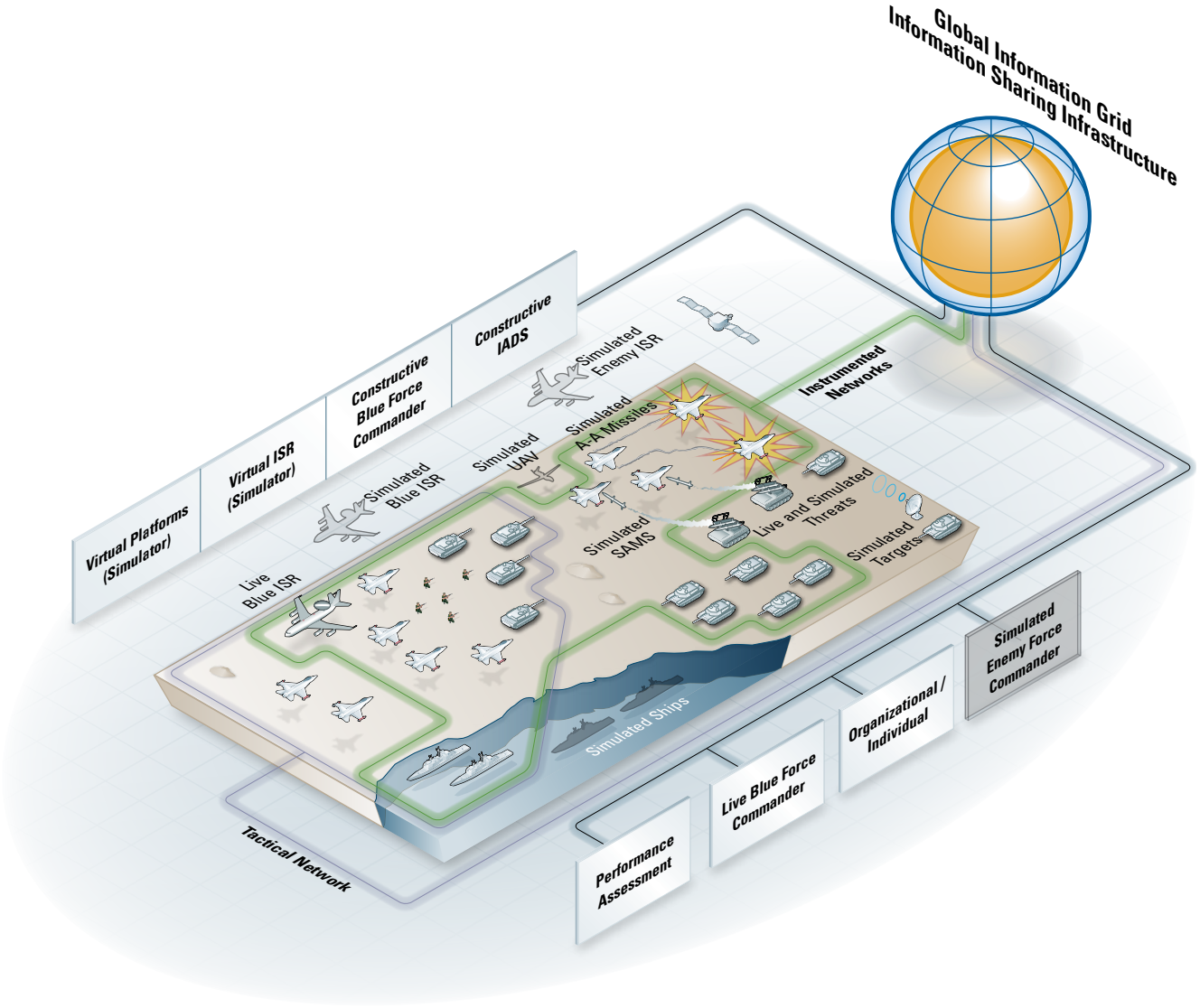
A LVC training environment can offer training and readiness benefits for our military personnel by allowing live units to interact with virtual and constructive units and with other live units to conduct coordinated training events as though all participants were physically located at the same training range or operations area (OPAREA). Figure 2-2 graphically displays the concept of an interoperable LVC training environment.

Ongoing DoD and Service programs, such as Synthetic Environment Core; the Battle Command System (BCS); Test and Training Enabling Architecture; Live, Virtual, Constructive—Integrated Architecture; and other related Departmental science and technology initiatives will greatly increase the capabilities and interoperability of the virtual

4 Department of Defense Strategic Plan for Transforming DoD Training, 8 May 2006, Office of the Under Secretary of Defense for Personnel and Readiness, Director, Readiness and Training Policy and Programs.

5 Department of Defense Training Transformation Implementation Plan FY2006–FY2011, 23 February 2006, Office of the Under Secretary of Defense for Personnel and Readiness, Director, Readiness and Training Policy and Programs.

Figure 2-2 The LVC Training Environment



training environment, and ultimately result in a more accurate replication of the operational environment. When fully operational, DoD's LVC training network will provide Commanders with immediate access to a global communications training, experimentation, testing, and education network. This network will be used to achieve and sustain Service and supporting unit proficiency as well as proficiency on METs and JMETs. The network will enable our military forces to effectively train as they operate from geographically dispersed locations at an affordable cost.

Important progress continues to be made in the area of LVC training. In November 2007, an integrated LVC training proof-of-concept demonstration was successfully conducted. The demonstration used existing technologies to network an F-15E aircraft (live), with an F-15E simulator (virtual), while integrating computer-generated threats (constructive), into both environments. The live aircraft and the manned F-15E simulator, operating as a wingman, targeted and destroyed the simulated threats that appeared on their respective radar displays.

2.3 Service Training Range and OPAREA Requirements

The *2008 Sustainable Ranges Report* places an emphasis on describing the processes used to derive current and future training range and OPAREA requirements and their outcomes. Understanding the processes by which the Service's derive such requirements, and the relationship between those requirements, new weapons systems, force relocation, transformation, and other strategic military initiatives, provides important context for the discussion and tabular views of encroachment and range capabilities that are provided in Section 3.

2.3.1 Army Requirements

Overview

The Army Campaign Plan (ACP) directs the planning, preparation, and execution of Army operations and transformation within the context of the current to future force. The ACP is the framework which serves to organize and synchronize the many changes underway as the Army builds a campaign-capable, joint, and expeditionary force. ACP components, including Modularity, Global Defense Posture and Realignment (GDPR), Base Realignment and Closure (BRAC), the Global War on Terror (GWOT), and the Grow the Army initiative are driving changes to Army training range and OPAREA requirements. Training requirements and operational activities associated with these components are creating readiness challenges by increasing both the number of fielded units and the level of training being conducted in the U.S. These challenges, coupled with new weapons systems capabilities and new doctrinal maneuver space requirements, continue to place pressure on existing training land assets.

Prior to BRAC 2005, the Army identified a shortfall of maneuver training land on the majority of its major installations in the continental U.S. The shortfall is based on a doctrinal requirement of 12 million acres against total Army assets of 7 million acres as reported in DoD's *2004 Sustainable Ranges Report*. In addition to doctrinal requirements, BRAC 2005 consolidations, GDPR moves, Army Force Generation (ARFORGEN), and increases in the area of operations for the Future Combat Systems Brigade Combat Team (BCT) also require an increase in the amount of land available to the Army.

Stationing and transformation are long-term initiatives designed to support and sustain the Army into the future. In 2003, the *Range and Training Land Strategy (RTLS)* was approved as a component of the Army's Sustainable Range Program (SRP). The purpose of the RTLS is to address the Army's increasing land deficit. The RTLS helps the Army prioritize its training land investment, and helps to optimize the use of range and training land assets. The RTLS provides a long-range plan for the Army to make available the best range and training land assets, and a framework for the Army to select the most appropriate course of action to address training land shortfalls. In analyzing land requirements, the Army does not focus on high operational tempos or surge requirements. Instead, the Army conducts its training requirements planning based on the peacetime assumption that all units are at home station and available to conduct training.

Current and Future Range Requirements

Army range facilities are currently sufficient in meeting the throughput and surge requirements necessary to support current deployments, however, it is increasingly challenging to fund the operation of range facilities under the expanded training schedule required to keep pace with deployments. While the Army resources the operation of its ranges on a peacetime schedule of 242 days a year, Army installations are operating their ranges, particularly collective training and urban operation training facilities, for reset and mobilization on a 24 hour, 7 day-a-week schedule for short, intense periods of time. For example, range operations staff at Camp Atterbury, IN, and Camp Shelby, MS, have doubled the number of range personnel to accommodate expanded training schedules. Funding to operate ranges under these conditions has become increasingly difficult for the Army, with Commanders having to use GWOT funds to supplement range operations above peacetime levels.

Currently, many of the Army's range facilities have not been modernized to meet new weapons systems requirements, or satisfy changes in training standards and doctrinal requirements. This strains the ability of existing range facilities to support current and near-term future requirements. To address this challenge, the Army is assessing its range assets and constructing new ranges in a continuous and integrated management approach through the SRP modernization planning process. This process integrates mission support, environmental stewardship, and economic feasibility at the installation, Army Command, Installation Management Command, and the Headquarters Department of the Army (HQDA) levels to effectively support current and future range and training land requirements.

The modernization planning process begins at the installation level with an analysis that calculates and compares doctrinal and other requirements derived from Army standards, training strategies, and individual unit METs. This analysis process assesses ranges and training land against current assets, utilization rates, environmental conditions and requirements, and infrastructure to

determine shortages and overages of ranges and training lands. The Army Range and Training Land Program Requirements Model automates the analysis process and provides the installation and HQDA with a report identifying facility shortages and excesses, as well as the number and type of ranges and the associated maneuver acres necessary to support live training. Based on this analysis, installations submit to their Commands a prioritized list of range projects needed to correct shortages and modernize existing range facilities.

Commands review and consolidate each installation's project list using the Live Fire Training Investment Strategy (LFTIS). Commands forward their LFTIS to the Requirements Review Prioritization Board (RRPB), which validates requirements and prioritizes projects by fiscal year for funding. Approved projects are incorporated into the Army Master Range Plan, a database for all approved range projects. At the installation level, the result of the planning process is the creation of a Range Complex Master Plan (RCMP). The Army is continuing its effort to develop an automated sustainable range operations tool using a Geographic Information System (GIS) platform that will support long-range planning and day-to-day integrated decision-making. The format was initially tested at Fort Bliss, TX in April 2006, and a stand-alone tool is expected to be fielded during FY2008.

Mission Areas

Current and future range requirements are based upon the ability of a range to support Army operational functions or *mission areas*. Mission areas are groups of tasks and systems (people, organizations, information, and processes) united by a common purpose that commanders use to accomplish mission and training objectives. These mission areas are listed in Table 2-3, and defined in Appendix B.

Table 2-3 Army Mission Areas

Mission Areas	
Movement and Maneuver	Sustainment
Fire Support	Command and Control (C2)
Intelligence	Protection

Effective live training is the cornerstone of operational success. The training of critical tasks that individual, crew, platoon, and companies have to accomplish to be combat ready is directly related to the availability and capability of live fire ranges and maneuver areas. The continued improvement of live fire ranges and facilities remains the key to Army readiness. Live fire ranges and facilities are expected to be even more important as the Army implements the ARFORGEN strategy which will place all units continuously in a reset, train, or ready status.

Army doctrine requires combined arms training based on teamwork and synchronization among units as they prepare for wartime combined arms operations. Combined arms proficiency results from regular practice of combat missions and tasks in the live domain. It starts with the development of individual skills. Individual skills, when combined and practiced, build unit proficiency from crew through brigade task force. The modernization of Army ranges under the SRP,

Table 2-4 Next Generation Army Digital Ranges

Range Type	Description
Digital Air Ground Integration Range (DAGIR)	The DAGIR is replacing Digital Aviation Gunnery Ranges. The DAGIR is designed to train and qualify Army Aviation (helicopter) crews, teams/platoons, and companies/troops. It will support aerial operations, reconnaissance, and target engagements, such as joint tactical engagements and convoy live fire training. The DAGIR will include open and urban terrain, and targets supporting simultaneous, integrated air and ground operations. The DAGIR will be included in the updated version of TC 25-8, Training Ranges.
Battle Area Complex (BAX)	The BAX provides a collective live fire training facility for all elements in the Stryker Brigade Combat Team (SBCT). SBCT crews and dismounted soldiers train to detect, identify, engage, and defeat stationary and moving combined arms targets in both open and urban terrain environments. The BAX supports live fire operations independently of, or simultaneously with, supporting vehicles in free maneuver. All targets are fully automated, utilizing event-specific, computer-driven target scenarios and scoring.
Digital Multi-Purpose Range Complex (DMPRC)	The DMPRC complex is used to train armor, infantry, and aviation crews, sections, squads, and platoons to detect, identify, engage, and defeat stationary and moving infantry and armor targets. Combined Arms Live Fire Exercises may be conducted on this facility. The DMPRC supports dismounted infantry platoon live fire operations independently of, or simultaneously with, supporting vehicles. All targets are fully automated, utilizing event-specific, computer-driven target scenarios and scoring.
Digital Multi-Purpose Training Range (DMPTR)	The DMPTR complex is used to train crews and dismounted infantry squads to detect, identify, engage, and defeat stationary and moving infantry and armor targets. The complex is specifically designed to meet the training and crew qualification requirements for armor, infantry and aviation crews, and sections. The DMPTR supports dismounted infantry squad live fire operations independently of, or simultaneously with, supporting vehicles. All targets are fully automated, utilizing event-specific, computer-driven target scenarios and scoring.

supported by the Range Modernization Requirements Planning Process, supports this doctrine.

To meet evolving training challenges, the Army is modernizing its inventory of ranges to more effectively support training for multiple purposes, weapons, and combined arms through the incorporation of new capabilities, instrumentation, and digital technologies into standard range designs. The Army has 39 types of modernized ranges. The capabilities and standard configurations for these ranges are found in Training Circular 25-8 (TC 25-8), which is currently being updated to include changes in ranges to meet new doctrinal requirements, new weapons systems, and new training standards. The ranges described in the circular represent the inventory of standard and modernized Army range facilities categorized into major subgroups as small arms ranges, urban operations training facilities, and collective training ranges.

Three new ranges have been added to the inventory of modernized ranges as a result of new doctrinal changes: the Convoy Live Fire Course, the Engineer Multipurpose Assault Course, and the Digital Air-Ground Integration Range (DAGIR). Changes in existing range designs have been made to increase range capabilities, add technology, and increase throughput capacity to match new training standards and support new weapons systems qualifications. The new family of modernized ranges will replace older types still in the Army's inventory that cannot accommodate new training or weapons systems requirements.

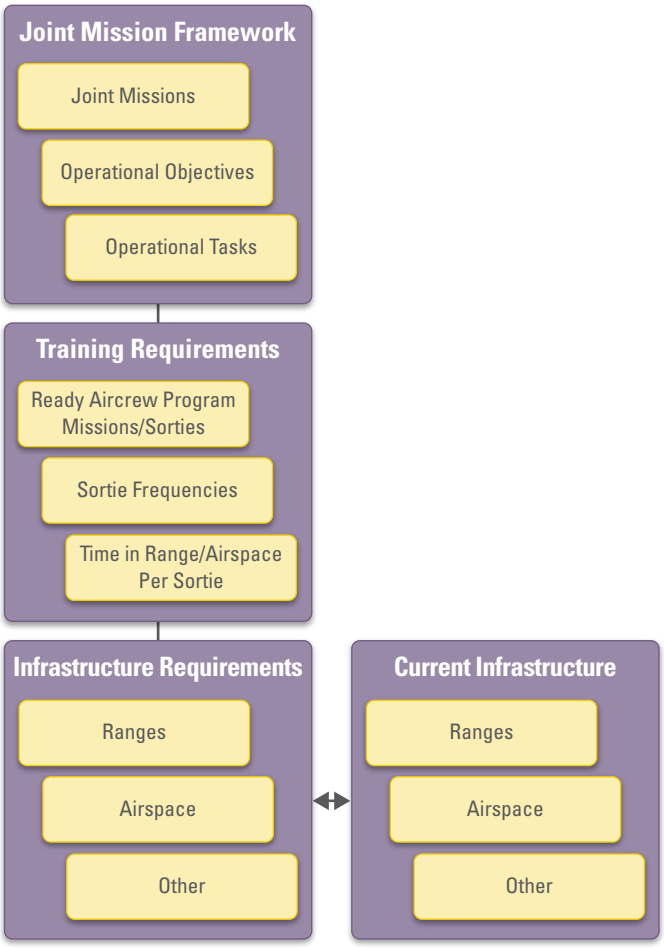
A key component of the Army's overall modernization process is the construction of the next generation of Army ranges—the digital range. These digital ranges will provide soldiers and units with the capability to exercise digital command and control in a live fire-training environment, as well as provide unprecedented situational awareness, tailored scenarios, and immediate feedback required to prepare for multiple threat environments. Next generation Army digital ranges are identified and described in Table 2-4.

2.3.2 Air Force Requirements

Overview

Because of the emerging trend of DoD readiness impacts caused by limitations on the use of military lands, marine areas, and airspace, the Air Force Air Combat Command (ACC) in 2001 partnered with the RAND Corporation to investigate a requirements-based approach for determining its range and airspace infrastructure needs. The goal of the study was to develop an analytical structure for translating ACC operational requirements into training requirements, and then into infrastructure requirements. It sought to establish a comprehensive, objective statement of ACC range and airspace requirements linked to national interests, and a corresponding approach to compare the adequacy of existing infrastructure with those requirements. A relational database was created to serve as an information repository and allow for analysis of the relationships among the three different elements. This process is described in the following paragraphs.

Figure 2-3 Framework for Developing Air Force Infrastructure Requirements



Prior to 2001, alternative range and airspace resource determinations were based primarily on statements of apparent gaps between requirements and existing capabilities. The Air Force determined that more effective decisions could be made if both the requirements and current asset capabilities were stated more explicitly, with resource decisions based on rigorously derived gap assessments. To be defensible, range infrastructure and resource requirements must be linked firmly to training requirements, which in turn must be linked directly to the

operational requirements of the Air Force in the conduct of its individual and joint national security missions. Additionally, for a requirements-based approach to succeed, an efficient means of comparing existing infrastructure capabilities with these vetted requirements would be needed. Figure 2-3 illustrates the framework at the core of the Air Force requirements translation process.

Current and Future Requirements

The first step in this requirements identification and translation process starts with the joint mission framework. This framework focuses on effects to be achieved for a joint commander without regard to how those needs might be met. This framework was developed because existing statements of operational requirements did not readily lend themselves to a strategies-to-task linkage to training requirements because they were too detailed, too context-specific, and classified at a level impractical for open communication with the public. The UJTL and its derivatives, the JMETL, and Air Force Task List support the strategy-to-task approach.

The second step in this process is to relate training activities to operational requirements as detailed in the Joint Mission Framework, and also to training resource needs, specifically range and airspace infrastructure requirements. In doing this, the Air Force focused on applied and combined sorties, as derived from the Ready Aircrew Program. The relationship is illustrated in Figure 2-4.

The third and final step in the Air Force range requirements development process is to evaluate operational and training requirements, and translate them into required range and airspace infrastructure. This is accomplished by grouping and dividing range and airspace infrastructure based on geographic, quantitative, and qualitative characteristics. From a geographic perspective, the required range infrastructure must be reasonably proximate to base operating locations. Quantitatively, the available training time on proximate ranges and airspace must be sufficient to support the training requirements of an operating base. For a given Mission Design Series (MDS)/sortie-type combination, the requirements are translated into capacity, or the amount of operating time required on ranges and in airspace, by multiplying the required number of sorties by the time required for an individual sortie on a range and/or in an airspace. Qualitative characteristics (and corresponding information on existing assets) must satisfy certain requirements, such as minimum dimensional requirements, availability of required range equipment, and authorized operation of aircraft and systems in specific ways. Qualitative characteristics were captured for six infrastructure types: ranges, low-level routes, maneuver areas, threats, orbits, and other.

Figure 2-4 Linking Training Activities to Air Force Range Infrastructure Requirements

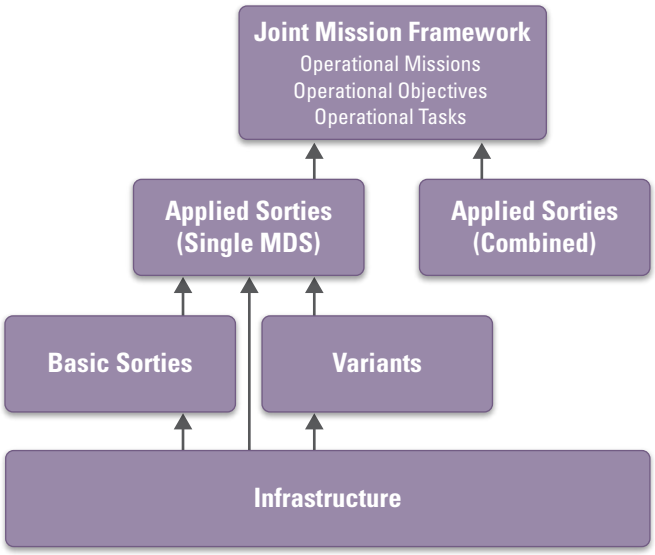


Table 2-5 Air Force Mission Areas

Mission Areas	
Strategic Attack	Command and Control (C2)
Counterair	Air Drop
Counterspace	Air Refueling
Counterland	Spacelift
Countersea	Special Operations
Information Operations	Intelligence, Surveillance, and Reconnaissance
Electronic Combat Support	

Based upon the initial success of the study, the Air Force has decided to undertake a follow-on project to provide a better foundation for ongoing and future analyses, and expand the preliminary relational database to include training other than continuation training, training for newer combat air force (CAF) MDS and weapons, and training for non-CAF MDS. The relational database will be expanded to capture and document emerging requirements and changes to the range and airspace infrastructure. Pending completion and analysis of the follow-on study, the existing Air Force process for translating operational requirements into training requirements into infrastructure requirements, as described remains the Air Force standard.

Mission Areas

The Air Force classifies ranges based upon their ability to support thirteen specific types of air warfare training. These training events or mission areas are listed in Table 2-5, and defined in Appendix B.

2.3.3 Navy Requirements

Overview

Today's high performance aircraft and ships employ weapons of significant capability and complexity with unique training and delivery characteristics that require a robust training range/OPAREA infrastructure. The Navy accomplishes most of its training on ranges and OPAREAs located near concentrations of forces in the U.S. and its territories. These areas enable high fidelity training facilitated by exercise coordinators. For safety purposes, these areas also provide a training space with reduced or restricted civilian traffic. Additionally, Naval forces train on Army-, Air Force-, and Marine Corps-controlled ranges. Shared and joint use of ranges both in the U.S. and abroad helps to economize time and resources spent on travel while simultaneously exposing Naval forces to the joint environment.

The Secretary of the Navy's "At-Sea Policy" allows established guidelines for training outside of designated ranges and OPAREAs in international sea and airspace. For the Navy to maintain control of the sea lines of communications far from land, it must be able to train significant distances away from the coastal areas where designated training areas are located.

Generation and validation of requirements for Navy training ranges in the United States and its territories falls under the purview of U.S. Fleet Forces (USFF). Type Commanders (TYCOMs) and various lower echelon Fleet commands control the ranges that are tenant commands on Navy installations. For example, the ranges in the San Diego area are grouped into the Southern California (SOCAL) Range Complex. SOCAL has several land, water, and air ranges managed by the Commander Naval Air Forces Pacific and Naval Special Warfare Command. While these commands, and their subordinates, such as the Southern California Off Shore Range (SCORE), control the day-to-day training operations on the ranges they also have

Table 2-6 Navy Fleet Response Training Plan Phases

Training Plan Phase	Description
Maintenance	Maintenance is the preferred period during the entire FRP in which major shipyard or depot level repairs, upgrades, and modernization will occur. In addition to completion of maintenance requirements, units continue to focus on individual/team training and achieving unit level readiness. To better accommodate TYCOM unit maintenance and training schedules, the basic phase may precede maintenance in part or in whole.
Basic (Unit Level Training)	The basic phase focuses on completion of TYCOM unit level training (ULT) requirements—team training both onboard and ashore, unit level exercises both in port and at sea, unit qualifications, assessments, qualifications, and certifications. During the basic phase, a unit will maximize the use of both distance learning options for individual skills development, and in port synthetic training. Successful completion of the basic phase ensures units are proficient in all required Navy Mission Essential Task capabilities, meet TYCOM certification criteria, and are ready for more complex integrated training events. ULT follows a cyclical "assess, train, and certify" process which has been instituted by the TYCOMs.
Integrated	The goal of integrated phase training is to synthesize unit/staff actions into coordinated strike group operations in a challenging, multi-warfare operational environment. This phase provides an opportunity for strike group decision makers and watch-standers to complete staff planning and warfare commanders courses; conduct multi-unit in-port and at-sea training; and to build on individual skill proficiencies attained in their respective basic phase. The integrated phase is adaptable in order to provide training for Major Combat Operations, Surge certification, Ready certification, and/or tailored training to support emergent Combatant Commander requirements.
Sustainment	The sustainment phase begins upon completion of the integrated phase, continues throughout the post deployment period, and ends with the commencement of the maintenance phase. Sustainment consists of a variety of training evolutions designed to sustain operation readiness as a group, multi-unit, or unit, until and following demployment. Sustainment phase training exercises units and staffs in multi-mission planning and execution, and to interoperate in a joint/coalition environment. In-port and at-sea sustainment training allows forces to demonstrate proficiency in operating as part of a joint and coalition combined force and ensures that proficiency is maintained in all Navy METs in order to maintain Major Combat Operations Ready status. The extent of training will vary depending on the unit's anticipated task and length of time in an MCO Ready status. During sustainment, units/groups maintain an Major Combat Operations Ready status until the commencement of the maintenance phase unless otherwise directed by Navy Fleet Commanders. Unit/group integrity during this period is vital to ensure integrated proficiency is maintained, particularly for strike groups. Deployments in support of Combatant Commander Global Force Management requirements may occur within the Sustainment Phase after numbered Fleet Commanders re-certify groups and units.

6 TYCOMs are responsible for the aircraft, ships and submarines that make up the Navy's operational numbered fleets. Numbered fleets (*e.g.,* 2nd Fleet, 5th Fleet, 6th Fleet, *etc.*) are immediately subordinate to major fleet commands (*e.g.* Atlantic and Pacific Fleets). They are comprised of various task forces, elements, groups, and units organized for the purpose of prosecuting specific naval operations.

environmental issues common to all of them. Environmental issues are managed by the Regional Environmental Coordinator on the staff of Navy Region Southwest. Because of the common administrative requirements influenced by the geographic proximity of the range components, the Navy manages its ranges as range complexes. For inventory and budgeting purposes the Navy groups ranges, and sometimes sets of small complexes to provide efficiencies.

Current and Future Requirements

Training requirements, as opposed to training range requirements, are defined by the TYCOMs. Navy TYCOMs are responsible for establishing the training requirements in each Navy Warfare Area for the various air, surface, and sub-surface forces. To prepare for the Planning, Programming, Budgeting, and Execution (PPBE) process, the TYCOMs obtain input from their subordinate commands to determine what training range capabilities and space are needed but not available. Those requirements are forwarded to the fleet level USFF and Pacific Fleet for validation. USFF forwards the requirements to Chief of Naval Operations for assessment as input to the Navy's Program Objectives Memorandum (POM)/ Program Review submission process.

The Navy's highest level range requirement is to provide forces with the land, air, sea-space, and frequency spectrum necessary to support the Fleet Response Plan (FRP). To meet the requirements of the FRP the Navy has developed a Fleet Response Training Plan (FRTP). The FRTP is the Navy's training cycle that requires forces to build up for full operations, deploy for those operations, and return from deployment, while maintaining a high level of readiness, consistent with the phases of the FRTP. To meet these milestones, the Navy has a geographically dispersed set of training complexes on each coast that provide the areas necessary to conduct controlled and safe training scenarios that are representative of the conditions Naval personnel will face in meeting their assigned tasks, either in peacetime operations or armed conflict. Table 2-6 summarizes the four FRTP training phases.

To quantify its range requirements for the foreseeable future, the Navy developed the Navy Range Required Capabilities Document (RCD). The RCD describes the training range capabilities required to support three levels of training complexity (basic, intermediate, and advanced) for required range functions.

Navy training ranges will play a critical role in supporting training for the operational forces well into the 21st century. The Navy anticipates that through 2025 the continuing requirement will be to support all phases of the FRP. Strategic planning for Navy complexes will include support for future training operations, as well as improvements to infrastructure to support the JNTC. Range capabilities will be addressed in individual RCMPs. The Navy will use these plans to implement Navy and DoD sustainable ranges policy, and to assist in evaluating new requirements throughout the PPBE process.

Mission Areas

The Navy defines range functions as the ability to support training in mission essential Naval warfare areas. These mission areas are provided in Table 2-7 and defined in Appendix B.

Table 2-7 Navy Mission Areas

Mission Areas	
Strike Warfare	Mine Warfare
Electronic Combat	Amphibious Warfare
Anti-Air Warfare	Anti-Submarine Warfare
Anti-Surface	Naval Special Warfare (NSW)

2.3.4 Marine Corps Requirements

Overview

Marine Corps training responsibilities are embodied in Marine Corps Tasks (MCTs), which are derived from the UJTL and Joint Tactical Tasks (JTTs). Together, the UJTL, JTTs, and MCTs are the basis for all Marine Corps training requirements. Training requirements are further articulated in the Marine Corps Training and Readiness (T&R) Program, specified in the T&R Manual as tasks and standards. The purpose of the T&R Program is to provide commanders with standardized approaches to individual and unit-level training.

While the Marine Corps' investment priorities have been focused on funding emerging operational requirements, progress continues to be made in the instrumentation of appropriate ranges to support the JNTC. The Marine Corps introduced a proposed capstone Joint Capabilities Document on LVC training into the Joint Capabilities Development System process, and has reinvigorated its Range Instrumentation and LVC working groups. The immediate priorities in the FY2007–FY2008 time frame are ensuring that communications and data infrastructure at Marine Corps Air Station (MCAS) Yuma, Marine Air-Ground Task Force Training Center (MAGTFTC) Twenty-nine Palms, and Mountain Warfare Training Center Bridgeport are adequate to meet the demands of future joint exercises. Limited instrumentation of urban training facilities at MAGTFTC Twenty-nine Palms and Marine Corps Base (MCB) Camp Lejeune has been initiated.

New weapons systems, such as the F-35 Joint Strike Fighter and the MV-22 Osprey, will drive new range requirements, particularly the requirement for access to adequate training airspace. While many of these requirements are not yet defined, efforts are underway to assess the adequacy of current ranges in both the Southeastern and Southwestern United States to support these aircrafts. New operational/tactical doctrine, employing both legacy and new weapons systems, also impacts range planning and usage. The ability to stress a large Marine Air-Ground Task Force (MAGTF) in a maneuver scenario is a training requirement that is currently driving an initiative to expand range activities in the Southwest.

The Marine Corps' planned end-strength growth will generate additional requirements that will impact range planning and utilization throughout the Marine Corps. A significant force relocation issue is the inter-governmental agreement between the U.S. and Japan to relocate some existing Marine Corps forces from Okinawa to Guam. The Marine Corps Range and Training Area Management (RTAM) office is heavily engaged in providing the necessary planning support to the Joint Guam Program Office and the Commanding General, Marine Forces Pacific.

Current and Future Requirements

Marine Corps training requires a range and training area infrastructure that is capable of providing quality training across the diverse environments and terrain Marines may deploy to, including the capacity to support training. The Marine Corps Training Ranges RCD is the validated requirement statement for ranges and training area capabilities within a near-term, 10-year planning horizon. The RCD specifies the range and training area capabilities required to support the training requirements of different combat elements of the Marine Corps (ground, air, and logistics) It is innovative in that it anticipates training adjustments to accommodate hardware and equipment technology refreshment, mission changes, and evolving training techniques and procedures to which range capabilities must adapt and support.

Mission Areas

The Marine Corps executes its national security mission through the MAGTF concept. A MAGTF is a self-sustaining combined-arms force designed to thoroughly exploit the combat power inherent in Marine ground, air and logistics assets by closely integrating them into a single force. Organized for specific missions, a MAGTF has a standard structure consisting of four basic combat elements: Command, Aviation Combat, Ground Combat, and Logistics Command. Based on the ability to support training across the range of Marine Corps combat elements, and the size of the unit conducting the training, the Marine Corps organizes its range classes or range mission areas. These mission areas are identified in Table 2-8 and defined in Appendix B.

Table 2-8 Marine Corps Mission Areas

Mission Areas	
Individual Level	MAGTF Marine Expeditionary Unit (MEU) Level
Unit Level	MAGTF Marine Expeditionary Brigade (MEB) Level

3 Adequacy of Existing Range Resources to Meet Training Requirements

NDAA Section 366(a)(2)(B) requires DoD to evaluate the adequacy of current range resources. Additionally, NDAA Sections 366(c)(1)(B) and (C) require DoD to identify training capabilities and constraints. In response, DoD has further developed its annual assessment process to evaluate the adequacy of ranges to support required training as well as the impacts of encroachment on the training missions conducted at each range.

In 2007, DoD began assessing the adequacy of ranges to support required training as well as the impacts of encroachment. While these initial assessments represented a significant step towards evaluating the adequacy of ranges to support training and the impacts of encroachment, short comings were identified and addressed in this year's effort. The DoD developed clear and concise guidance detailing the process for completing the 2008 assessment and providing the requirement information. The DoD and the Services worked together to build a comment set of capability attributes and encroachment factors, and a standard criteria to evaluate them against. The common attributes and factors, as well the standard evaluation criteria lead to a consistent assessment and analysis across the Services. A discussion of the assessments and the results of the standardization efforts are discussed in the following sections.

3.1 Assessment Methodology And Examples

As part of the evolving assessment process, DoD developed a more streamlined approach for assessing the impact of range capabilities and encroachment (constraints/ restrictions that inhibit accomplishment of training in support of mission readiness). Working with the Services, DoD provided detailed guidance and definitions for common capability attributes and common encroachment factors to ensure consistency and standardization. Additionally, DoD established a connection between range capabilities attributes and encroachment factors to range-related mission areas. Service mission areas are presented in Chapter 2, and defined in Appendix B. The Services then assessed the ability of each of their ranges to support training for its given mission areas against the 13 common capability attributes and the 12 common encroachment factors developed by DoD and the Services.

3.1.1 Capability Assessment

The following 13 common capability attributes were developed and identified by the Services for the 2008 assessment and reporting process:

[1] Landspace—Physical land area that has the necessary features such as topography, vegetative cover, configuration, proximity, capacity, usability, acreage, *etc*.

[2] Airspace—Physical volume of airspace that has the necessary features such as types of use, configuration, proximity, capacity, amount, *etc*.

[3] Seaspace—Physical sea-surface area that has the necessary features such as types of use, configuration, proximity, capacity, amount, *etc*.

[4] Underseaspace—Physical volume of underseaspace that has the necessary features such as ocean bottom type, depth, types of use, configuration, proximity, capacity, amount, *etc*.

[5] Targets—Various land, air, sea, and undersea presentations designed for live or simulated weapons engagement.

[6] Threats—Various physical and simulated threat presentations such as emitters, opposing adversary forces, battlefield effects simulators, *etc*.

[7] Scoring and Feedback Systems—Equipment that provides information for training event reconstruction, debriefing, and replay, whether virtual or live, through the collection and storage of time and space position information (TSPI), weapons accuracy, systems and operator accuracy, assessment and monitoring of operator performance, and C4I network information flow.

[8] Infrastructure—Buildings, structures, or linear structures (*e.g*. roads, rail lines, pipelines, fences, pavement).

[9] Range Support—Personnel, software, and hardware that support daily range operations, maintenance (including range clearance), communication networks for command and control, scheduling, and range safety as examples. Communications networks include inter- and intra-range systems point-to-point; range support networks; fiber optic and microwave backbones; information protection systems such as encryption, and radio, data link; and instrumentation frequency management systems.

[10] Small Arms Ranges—Small arms refer to ranges that accommodate weapons systems that fire rounds up through 40mm which is dud-producing.

[11] Collective Ranges—Collective refers to ranges that provide proficiency at the team or unit level for battlefield operations.

[12] MOUT Facilities—Military Operations in Urban Terrain (MOUT) facilities refer to terrain complexes that replicate urban environments.

[13] Suite of Ranges—The Suite of Ranges is a nominal make-up of range attributes and is intended to provide the baseline requirement for each level of training. The elements include various types of ranges such as maneuver/training area, impact areas, live-fire ranges, aviation ranges, and MOUT complexes that must be coordinated to conduct required training events.

Service-specific mission areas (as listed in Chapter 2, and defined in Appendix B) were assessed and evaluated against the 13 capability attributes using a color rating scheme. These assessments were based on range usage with regards to accessibility and usability during normal operations using the following rating scale:

- Red—The range is not mission capable. It is unable to support required training tasks for a given mission area to prescribed doctrinal standards and conditions.
- Yellow—The range is partially mission capable. It can partially support required training tasks for a given mission area to prescribed doctrinal standards and conditions, resulting in marginalized training for the range users.
- Green—The range is fully mission capable. It can support required training tasks for a given mission area to prescribed doctrinal standards and conditions.
- White (Blank)—White or blank represents the situation where an assessment for a given mission area is not performed against a particular attribute.

This scale is consistent with the developing standards within the Defense Readiness Reporting System (DRRS), where "red" means the assigned mission cannot be achieved, "yellow" means the mission can be achieved but there is greater risk, and "green" means the assigned mission can be achieved.

3.1.2 Encroachment Assessment

The impact of encroachment on mission readiness is difficult to assess because of the flexibility in training operations and associated resources. This flexibility is necessary to allow the Services' operational forces to adapt to real-time operational constraints. To achieve their mission training

requirements, the Services employ workarounds that have the potential to increase mission risk due to unrealistic, segmented, or irrelevant training, and can possibly result in a deterioration of training content and/or quality. It is important to understand that encroachment promotes workarounds, workarounds increase mission risk, and mission risk can build over time before a specific mission failure is evident. Therefore, as part of DoD's efforts to standardize the assessment of encroachment on training ranges, the Services were tasked to assess the impact of the following 12 encroachment factors in terms of mission risk, against their Service mission areas (as listed in Chapter 2, and defined in Appendix B).

[1] Threatened & Endangered Species/Critical Habitat—Constraints placed on training due to regulatory requirements and/or Service guidance to manage at risk, threatened, or endangered species or associated habitat.

[2] Munitions Restrictions—Constraints placed on training due to regulatory requirements and/or Service guidance on munitions use, munitions constituents, or residue to include range clearance.

[3] Spectrum—Constraints placed on training due to unavailability of, or interference with, required electromagnetic spectrum.

[4] Maritime Sustainability—Constraints placed on training due to regulatory requirements and/or Service guidance to protect and sustain the maritime environment. This includes sonar issues.

[5] Airspace—Constraints placed on training due to the availability of airspace; these constraints may be spatial or temporal.

[6] Air Quality—Constraints placed on training due to regulatory requirements and/or Service guidance to maintain air quality.

[7] Noise Restrictions—Constraints placed on training as a result of mitigation measures for unwanted sound generated from the operation of military weapons or weapon systems that affects either people, animals (domestic or wild), or structures on or in proximity to military training areas. This does not include occupational noise exposure or underwater sound.

[8] Adjacent Land Use—Constraints placed on training due to incompatible development in proximity to military training areas.

[9] Cultural Resources—Constraints placed on training due to legal and/or regulatory requirements and/or Service guidance to manage and maintain cultural resources.

[10] Water Quality/Supply—Constraints placed on training due to legal and/or regulatory requirements and/or Service guidance to manage water quality and supply.

[11] Wetlands—Constraints placed on training due to legal and/or regulatory requirements and/or Service guidance to manage wetlands.

[12] Range Transients—Constraints placed on training due to the unannounced or unauthorized presence of individuals, livestock, aircraft, or watercraft transiting ranges.

Services assessed the ranges/range complex for the risks associated with actual restrictions and workarounds related to the various Encroachment Factors presented earlier. These assessments were made based on observed use of the range with regards to availability using the following rating scale:

- Red—The encroachment factor has a severe effect, or high risk, to the range's ability to support its assigned mission training and would likely cause the training mission to fail. Mitigating the encroachment would involve prohibitive costs or actions for the range.
- Yellow—The encroachment factor has a moderate impact, or medium risk, on the range's ability to support its assigned mission training. Workarounds have a moderate impact on training content, procedure, or outcome. Addressing the encroachment results in additional burdens or requires additional actions by the range to mitigate the impact of the encroachment.
- Green—The encroachment factor has minimal impact, or low risk, on the range's ability to support its assigned mission training. Workarounds detract minimally or not at all from training content, procedure, or outcome. Costs are not incurred by the range or range users to address the encroachment factor.
- White (Blank)—White or blank represents the situation where an encroachment factor does not exist for a given mission area.

3.1.3 Example Capability Assessment and Analysis

The following discussion details an example Capability Assessment and Analysis. Figure 3-1 illustrates the format DoD used to collect, evaluate, and analyze range capability data.

Each Service's individual ranges/range complexes were assessed for their ability to support their assigned training missions using the 13 common capability attributes. As shown in the above figure, the interactions between the various mission areas (1 through 5 as examples), and the 13 common capability attributes, are assessed for mission impacts using the red, yellow, green (R/Y/G) rating scale discussed in Section 3.1.1.

This example shows that Range A is being assessed against its ability to support training for its five mission areas. As seen above, the red rating for airspace in Mission Areas 2 through 5 indicate that the airspace is insufficient to support one or more of the training tasks associated with each Mission Area to prescribed doctrinal standards or conditions. Other red ratings, indicating capability attribute shortfalls that are severely impacting mission areas are: scoring and feedback systems for Mission Areas 1 and 5, Small Arms Ranges for all five mission areas, and range support for Mission Area 4.

Less severe impacts can be seen in the yellow ratings, such as those for threats in Mission Area 4 and MOUT facilities in Mission Areas 2-5. For Yellow ratings there are shortfalls in prescribed doctrinal standards or conditions such that training for a certain task(s) in a mission area will be degraded. Limited or no impact describes the majority of attributes for Range A. These attributes are sufficient to provide training in the five mission areas to doctrinal conditions and standards.

Where a capability is assessed against a mission area a red, yellow, or green rating is assigned. Where capabilities are not required at a given range, or not assessed, the blocks are rated white. Where training for a mission area does not apply to a given range, all capabilities are assessed white. The completed table provides the basic information used to generate the overall rating on the sliding bar view, and a comprehensive pie-chart view, of the capabilities Range A provides to train for five different mission areas. This is baseline data, representing a static point in time, and alone does not provide insight into trends based on changing external conditions.

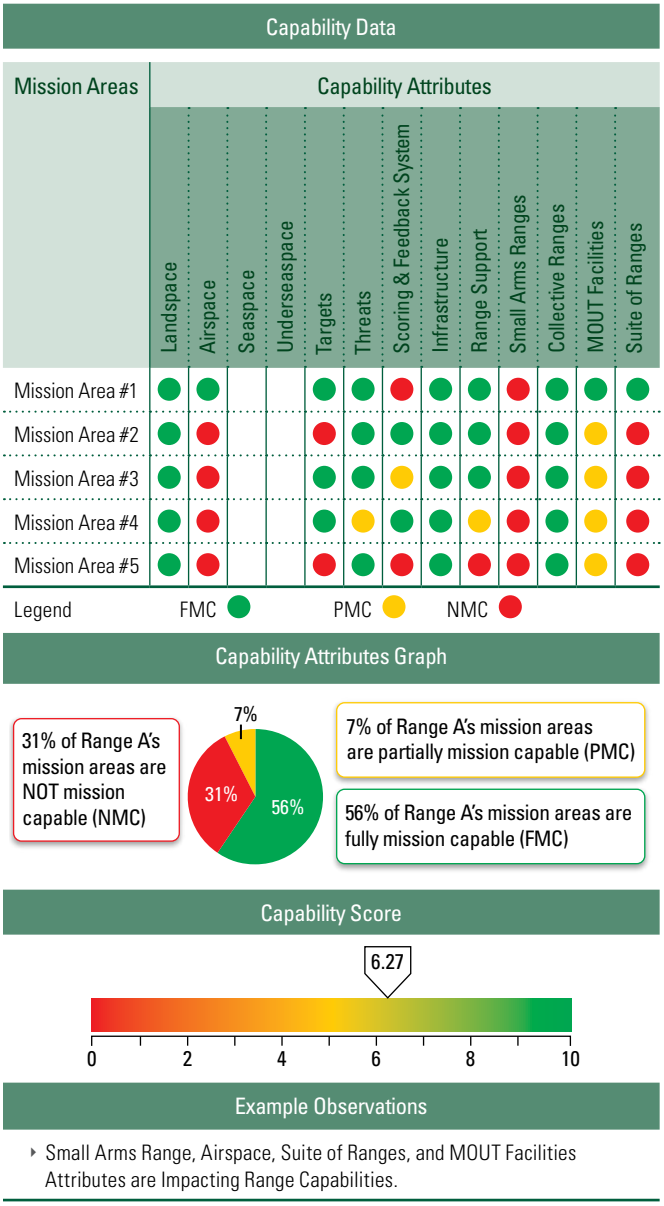
In this example, an overall rating and sliding scale were generated using a weighted average method to calculate a Capability Score on a scale of 0 to 10, with zero being no capability or red, and 10 being full capability or green. For this example range there were 31 green, 7 yellow, and 17 red responses. Additionally, 10 attributes were not assessed. The weighting plan is 0 for red, 5 for yellow, and 10 for green.

Using these numbers, the total weighted score for this example is 345. The weighted average (in this example 6.27) is determined by dividing the weighted score (345) by the total number of responses (55). The weighted average becomes the range's capability score, 6.27, as shown in Figure 3-1.

This sliding scale provides a baseline needed for future trend analysis. To represent the overall relationship of red/yellow/green assessments a pie chart view is provided. Additional observations can be readily seen from the pie

Figure 3-1 Example Capability Assessment and Analysis

Range A: Example Capabilities Data as Provided by Services



charts. For example, of all the capability factors necessary to provide assigned training for Range A, the pie chart shows that 31% are so severely degraded that some facet of training cannot be accomplished to even a marginal level.

3.1.4 Example Encroachment Assessment and Analyses

The following discussion details an example Encroachment Assessment and Analysis. Figure 3-2 illustrates the format DoD used to collect, evaluate, and analyze range encroachment information.

Each Service's individual ranges/range complexes were assessed for the impact encroachment has on their ability to support their assigned training missions using 13 common encroachment factors. As shown in the above figure, the interactions between the various mission areas (1 through 5 as examples) and the 12 common encroachment factors are assessed for mission impacts using the red, yellow, green (R/Y/G) rating scale discussed in Section 3.1.1 and similarly to the capability assessment.

This example shows that Range A is being assessed against its ability to support training for its five mission areas. As seen above, the red ratings for adjacent land use in Mission Areas 3 and 5 indicate that there is some sort of incompatible development in proximity to the range that is severely affecting or putting at risk the range's ability to support training for those two mission areas at risk. This signifies that the ability to mitigate the encroachment situation would involve prohibitive costs or actions for the range. Other red ratings indicating that severe encroachment situations exist are: Spectrum for Mission Area 3, Wetlands for Mission Areas 4 and 5, and Air Quality for Mission Area 3.

Moderate encroachment impacts can be seen in the yellow ratings, such as those for Adjacent land use in Mission Area 1 and noise restrictions and water quality/supply with Mission Area 3. The number of green assessments indicate that the majority of encroachment factors are having minimal to no impact, or present a low risk, on the range's ability to support its assigned mission training. Whatever workarounds are being employed detract minimally or not at all from training content, procedure, or outcome.

Where an encroachment factor is assessed against a mission area a red, yellow, or green rating is assigned. Where an encroachment factor does not exist for a mission area at a given range, the blocks are rated white as previously defined. The completed table provides the basic information used to generate the overall rating on the sliding scale view, and a comprehensive pie-chart view, of the impact encroachment is having on Range A's ability to provide training for five different mission areas.

In this example, an overall rating and sliding bar were generated using a weighted average method to calculate an overall Encroachment Score on a scale of 0 to 10, with zero being a severe encroachment/high risk situation or red, and 10 being a minimal/low risk situation or green.

For this example range there were 45 green, 5 yellow, and 8 red responses. Additionally, 2 factors were not assessed.

Figure 3-2 Example Encroachment Assessment and Analysis

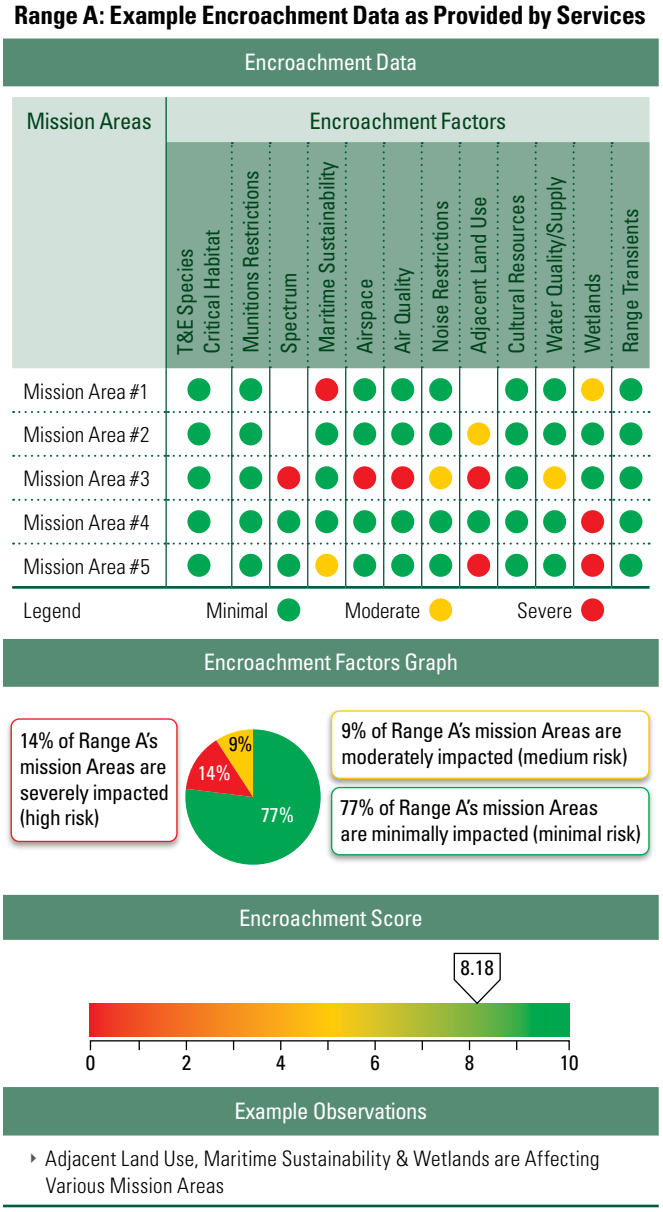
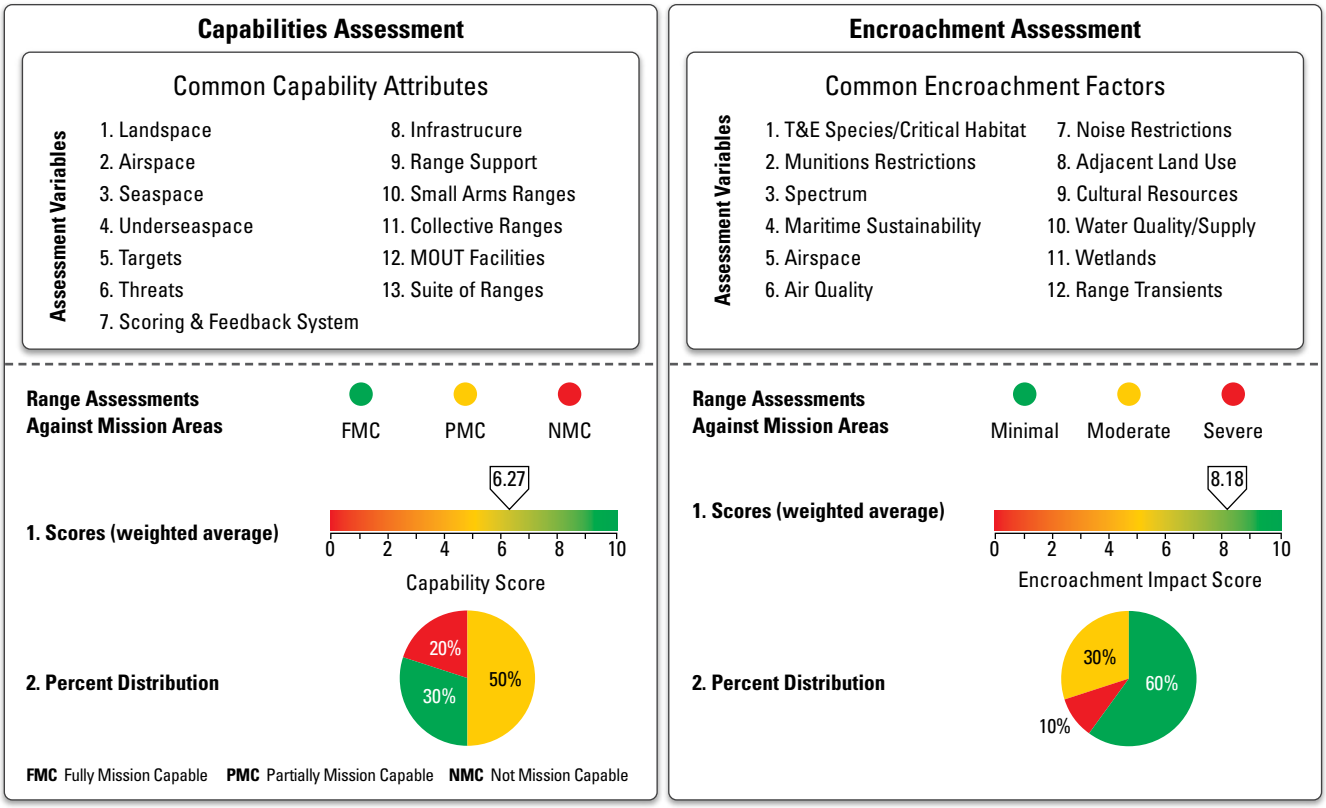


Figure 3-3 Comparison of the Capability and Encroachment Assessment Methodologies



The weighting plan is 0 for red, 5 for yellow, and 10 for green. Using these numbers, the total weighted score for this example is 475. The weighted average (in this example 8.18) is determined by dividing the weighted score (475) by the total number of responses (58). The weighted average becomes the range's encroachment score, 8.18, as shown in Figure 3-2.

This sliding scale establishes the baseline needed for future trend analysis. A pie chart view is provided to represent the overall relationship of red/yellow/green assessments. Some additional observations can be readily seen from the pie charts. For example, of all the encroachment factors assessed, the majority are not a concern with only 23% having a moderate or severe impact.

The intent of this analysis is to ensure that training ranges are assessed against mission areas that are specifically related to training requirements. Figure 3-3 provides a comparison of Services' Standards Methods, Analysis, and Reporting for Capabilities and Encroachment assessments on the range training Mission.

In this year's report, the use of a sliding scale, as described above, and pie charts have been implemented to aggregate Service assessment data in a unit-less representation that can be quickly assessed. The relationship between encroachment and capability begins to emerge and can be used for further development of this very complex relationship.

3.2 Assessment Results and Discussions

3.2.1 Army

Army Training Range Capability Assessment Results

The results of the Army's overall range capability assessment are:

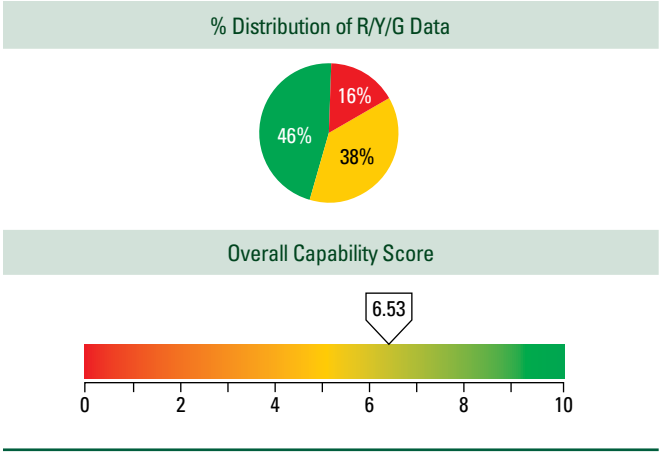
- Army's overall Capability Score = 6.49
- 16% of the Army's Range Mission Areas are assessed as Not Mission Capable (NMC)
- 38% of the Army's Range Mission Areas are assessed as Partially Mission Capable (PMC)
- 46% of the Army's Range Mission Areas are assessed as Fully Mission Capable (FMC)

Shortfalls were identified in the Airspace, Scoring and Feed Back System, Landspace, and Infrastructure capability attributes, and all six Army mission areas were impacted.

Impacted ranges, or ranges with a capability score less than the Army's overall score of 6.49 include: Fort Bliss, Fort Drum, Fort Campbell, Fort Bragg, Fort Riley, Fort Benning, Fort Hood, and Fort Stewart. Examples of specific comments from the Army's assessment process are:

- BRAC support ranges will create a capability gap (Fort Benning)
- BRAC construction challenges and GTA ranges are still not programmed (Fort Bliss)
- Roads and parking that support mobilization are in poor shape due inadequate funding. The installation is behind in SRM funding. (Fort Bragg)
- Doctrinal training land shortfall that forces all units to do workarounds (Fort Campbell, Fort Hood, Fort Riley),
- Major repair and maintenance backlog on surfaced training area roads (Fort Campbell)

Figure 3-4 Summary: Army Range Capability Assessment



Army Training Range Encroachment Assessment Results

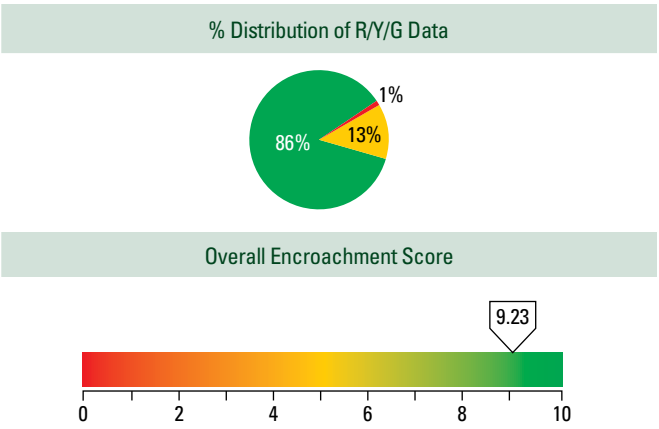
The results of the Army's overall range encroachment assessment are:

- Army's overall Encroachment Score = 9.23
- 1% of the Army's Range Mission Areas are severely impacted (High risk)
- 13% of the Army's range Mission Areas are moderately impacted (Medium risk)
- 86% of the Army's Range Missions Ares are minimally impacted (Minimal risk)

Encroachment factors contributing constraints were identified as: Air Quality, Wetlands, Adjacent Land Use, and T&E Species and Critical Habitat, while all six mission areas are impacted. Ranges with an encroachment score of less than 9.00 include: Fort Hood, Fort Benning, Fort Wainwright, Fort Lewis, and Yakima Training Area. Examples of specific comments from the Army's assessment process are:

- New range maneuver corridors, Increased noise (Fort Benning)
- Operational area restricted for use of pyro/smoke, Urban sprawl (Fort Carson)
- No artillery fire within 1 km of the boundary (Fort Drum)
- Restricted from using smoke, thinning habitats due to digging, urban land use (Fort Hood)
- Urban sprawl (Fort Lewis)
- Restrictions on digging (Fort Wainwright)

Figure 3-5 Summary: Army Range Encroachment Assessment

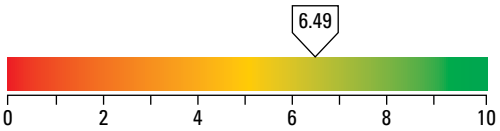


Detailed Army Training Range Capability and Encroachment Assessment Results

The following tables and figures present detailed information on the Army's Training Range Capability and Encroachment Assessments. The first set of tables detail the methodology used for determining the weighted averages that make-up an individual range capability and encroachment score. This information is shown for all the Army ranges assessed. The set of figures that follow provide assessment detail at the range level specific to mission areas and capability attributes and encroachment factors.

Table 3-1 Army Range Capability Assessment Data Analysis

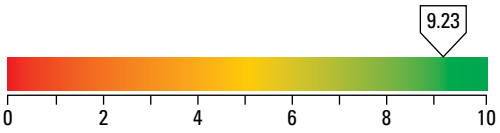
Army Range Capability Assessment Detail



Range	NMC	PMC	FMC	Total Weighted Scores	Total Assessment Points	Weighted Average
Fort Benning	5	23	17	285	45	6.33
Fort Bliss	13	21	11	215	45	4.78
Fort Bragg	11	20	14	240	45	5.33
Fort Campbell	12	19	14	235	45	5.22
Fort Carson	11	8	26	300	45	6.67
Fort Drum	17	10	18	230	45	5.11
Fort Hood	11	20	14	240	45	5.33
Fort Irwin	6	14	31	380	51	7.45
Fort Lewis	0	21	24	345	45	7.67
Fort Polk	0	13	38	445	51	8.73
Fort Riley	11	11	23	285	45	6.33
Fort Stewart	5	23	17	285	45	6.33
Fort Wainwright	0	16	29	370	45	8.22
Yakima Training Area	0	28	17	310	45	6.89
Totals	**102**	**247**	**293**	**4,165**	**642**	**6.49**

Table 3-2 Army Range Encroachment Assessment Data Analysis

Army Range Encroachment Assessment Detail



Range	Severe	Moderate	Minimal	Total Weighted Scores	Total Assessment Points	Weighted Average
Fort Benning	0	14	26	330	40	8.25
Fort Bliss	0	0	39	390	39	10.00
Fort Bragg	0	0	41	410	41	10.00
Fort Campbell	0	0	39	390	39	10.00
Fort Carson	0	5	28	305	33	9.24
Fort Drum	0	7	32	355	39	9.10
Fort Hood	2	13	26	325	41	7.93
Fort Irwin	0	2	38	390	40	9.75
Fort Lewis	0	12	29	350	41	8.54
Fort Polk	0	0	41	410	41	10.00
Fort Riley	0	0	33	330	33	10.00
Fort Stewart	0	6	30	330	36	9.17
Fort Wainwright	6	0	33	330	39	8.46
Yakima Training Area	0	9	32	365	41	8.90
Totals	**8**	**68**	**467**	**5,010**	**543**	**9.23**

Figure 3-6 Army Capability and Encroachment Assessment Detail

Army Range: Fort Benning

Capability Data

Mission Areas	Landspace	Airspace	Seaspace	Underseaspace	Targets	Threats	Scoring & Feedback System	Infrastructure	Range Support	Small Arms Ranges	Collective Ranges	MOUT Facilities	Suite of Ranges
Movement and Maneuver	PMC	PMC			FMC		NMC	FMC	FMC	PMC	PMC	PMC	
Fire Support	PMC	PMC			FMC		NMC	FMC	FMC		PMC	PMC	
Intelligence	PMC	PMC			FMC		NMC	FMC	FMC			PMC	
Sustainment	PMC							FMC	FMC	PMC	PMC	PMC	
Command Control	PMC	PMC			FMC		NMC	FMC	FMC			PMC	
Protection	PMC				FMC		NMC	FMC	FMC	PMC	PMC	PMC	

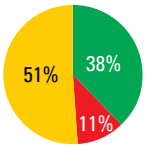
Legend: FMC PMC NMC

Encroachment Data

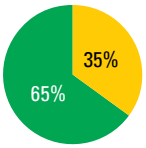
Mission Areas	Threatened and Endangered Species	Munitions Restrictions	Spectrum	Maritime Sustainability	Airspace	Air Quality	Noise Restrictions	Adjacent Land Use	Cultural Resources	Water Quality/Supply	Wetlands	Range Transients
Movement and Maneuver	Minimal		Minimal	Minimal	Minimal	Minimal	Moderate	Moderate	Minimal		Moderate	
Fire Support	Minimal		Minimal		Minimal	Minimal	Moderate	Moderate	Minimal		Moderate	
Intelligence	Minimal		Minimal		Minimal		Moderate	Moderate	Minimal		Moderate	
Sustainment	Minimal		Minimal						Minimal		Moderate	
Command Control	Minimal		Minimal		Minimal				Minimal		Moderate	
Protection	Minimal		Minimal			Minimal	Moderate	Moderate	Minimal		Moderate	

Legend: Minimal Moderate Severe

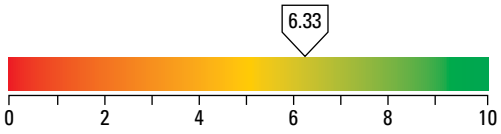
Summary Percent Distribution



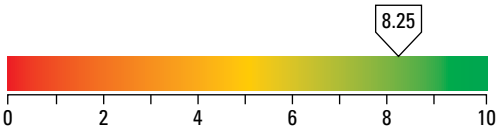
Summary Percent Distribution



Overall Capability Score



Overall Encroachment Score



Summary Observations

- Scoring and Feedback Systems
- Movement and Maneuver

Summary Observations

- Wetlands
- All Mission Areas are Equally Impacted

Figure 3-6 Army Capability and Encroachment Assessment Detail (Continued)

Army Range: Fort Bliss

Capability Data

Mission Areas	Landspace	Airspace	Seaspace	Underseaspace	Targets	Threats	Scoring & Feedback System	Infrastructure	Range Support	Small Arms Ranges	Collective Ranges	MOUT Facilities	Suite of Ranges
Movement and Maneuver	FMC	PMC			FMC		PMC	PMC	PMC	NMC	NMC	NMC	
Fire Support	FMC	PMC			FMC		PMC	PMC	PMC		NMC	NMC	
Intelligence	FMC	PMC			FMC		PMC	PMC	PMC			NMC	
Sustainment	FMC							PMC	PMC	NMC	NMC	NMC	
Command Control	FMC	PMC			FMC		PMC	PMC	PMC			NMC	
Protection	FMC				FMC		PMC	PMC	PMC	NMC	NMC	NMC	

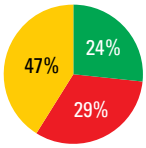
Legend: FMC PMC NMC

Encroachment Data

Mission Areas	Threatened and Endangered Species	Munitions Restrictions	Spectrum	Maritime Sustainability	Airspace	Air Quality	Noise Restrictions	Adjacent Land Use	Cultural Resources	Water Quality/Supply	Wetlands	Range Transients
Movement and Maneuver	Minimal		Minimal		Minimal	Moderate	Minimal	Minimal	Minimal		Minimal	
Fire Support	Minimal		Minimal		Minimal	Moderate	Minimal	Minimal	Minimal		Minimal	
Intelligence	Minimal		Minimal		Minimal		Minimal	Minimal	Minimal		Minimal	
Sustainment	Minimal		Minimal						Minimal		Minimal	
Command Control	Minimal		Minimal		Minimal				Minimal		Minimal	
Protection	Minimal		Minimal			Moderate	Minimal	Minimal	Minimal		Minimal	

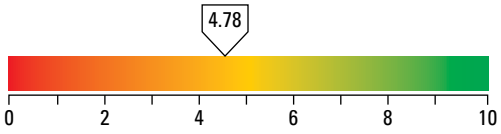
Legend: Minimal Moderate Severe

Summary Percent Distribution

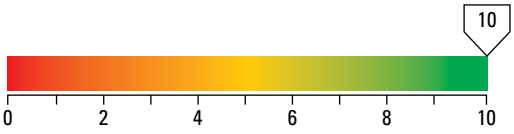


Summary Percent Distribution

Overall Capability Score



Overall Encroachment Score



Summary Observations

- MOUT Facilities
- Movement and Maneuver

Summary Observations

- Minimal Encroachment Issues

Figure 3-6 Army Capability and Encroachment Assessment Detail (Continued)

Army Range: Fort Bragg

Capability Data

Mission Areas	Landspace	Airspace	Seaspace	Underseaspace	Targets	Threats	Scoring & Feedback System	Infrastructure	Range Support	Small Arms Ranges	Collective Ranges	MOUT Facilities	Suite of Ranges
Movement and Maneuver	PMC	PMC			FMC		NMC	NMC	PMC	FMC	PMC	FMC	
Fire Support	PMC	PMC			FMC		NMC	NMC	PMC		PMC	FMC	
Intelligence	PMC	PMC			FMC		NMC	NMC	PMC			FMC	
Sustainment	PMC							NMC	PMC	FMC	PMC	FMC	
Command Control	PMC	PMC			FMC		NMC	NMC	PMC			FMC	
Protection	PMC				FMC		NMC	NMC	PMC	FMC	PMC	FMC	

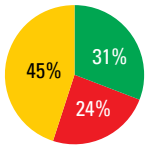
Legend: FMC PMC NMC

Encroachment Data

Mission Areas	Threatened and Endangered Species	Munitions Restrictions	Spectrum	Maritime Sustainability	Airspace	Air Quality	Noise Restrictions	Adjacent Land Use	Cultural Resources	Water Quality/Supply	Wetlands	Range Transients
Movement and Maneuver	Minimal		Minimal		Minimal	Moderate	Minimal	Minimal	Minimal		Minimal	
Fire Support	Minimal		Minimal		Minimal	Moderate	Minimal	Minimal	Minimal		Minimal	
Intelligence	Minimal		Minimal		Minimal		Minimal	Minimal	Minimal		Minimal	
Sustainment	Minimal		Minimal					Minimal	Minimal		Minimal	
Command Control	Minimal		Minimal		Minimal			Minimal	Minimal		Minimal	
Protection	Minimal		Minimal			Moderate	Minimal	Minimal	Minimal		Minimal	

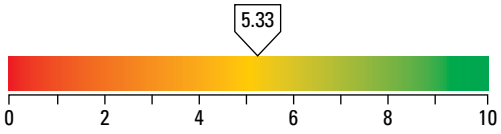
Legend: Minimal Moderate Severe

Summary Percent Distribution

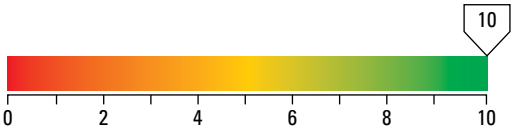


Summary Percent Distribution

Overall Capability Score



Overall Encroachment Score



Summary Observations

- Infrastructure
- Movement and Maneuver and Fire Support

Summary Observations

- Minimal Encroachment Issues

Figure 3-6 Army Capability and Encroachment Assessment Detail (Continued)

Army Range: Fort Campbell

Capability Data

Mission Areas	Landspace	Airspace	Seaspace	Underseaspace	Targets	Threats	Scoring & Feedback System	Infrastructure	Range Support	Small Arms Ranges	Collective Ranges	MOUT Facilities	Suite of Ranges
Movement and Maneuver	NMC	PMC			FMC		PMC	NMC	PMC	FMC	PMC	FMC	
Fire Support	NMC	PMC			FMC		PMC	NMC	PMC		PMC	FMC	
Intelligence	NMC	PMC			FMC		PMC	NMC	PMC			FMC	
Sustainment	NMC							NMC	PMC	FMC	PMC	FMC	
Command Control	NMC	PMC			FMC		PMC	NMC	PMC			FMC	
Protection	NMC				FMC		PMC	NMC	PMC	FMC	PMC	FMC	

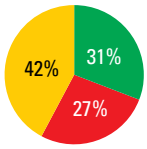
Legend: FMC PMC NMC

Encroachment Data

Mission Areas	Threatened and Endangered Species	Munitions Restrictions	Spectrum	Maritime Sustainability	Airspace	Air Quality	Noise Restrictions	Adjacent Land Use	Cultural Resources	Water Quality/Supply	Wetlands	Range Transients
Movement and Maneuver	Minimal		Minimal		Minimal	Minimal	Minimal	Minimal	Minimal		Minimal	
Fire Support	Minimal		Minimal		Minimal	Minimal	Minimal	Minimal	Minimal		Minimal	
Intelligence	Minimal		Minimal		Minimal		Minimal	Minimal	Minimal		Minimal	
Sustainment	Minimal		Minimal						Minimal		Minimal	
Command Control	Minimal		Minimal		Minimal				Minimal		Minimal	
Protection	Minimal		Minimal			Minimal	Minimal	Minimal	Minimal		Minimal	

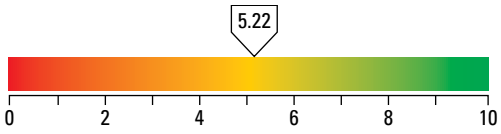
Legend: Minimal Moderate Severe

Summary Percent Distribution

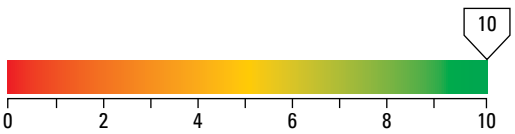


Summary Percent Distribution

Overall Capability Score



Overall Encroachment Score



Summary Observations

- Landspace and Infrastructure
- Movement and Maneuver and Fire Support

Summary Observations

- Minimal Encroachment Issues

Figure 3-6 Army Capability and Encroachment Assessment Detail (Continued)

Army Range: Fort Carson / Pinon Canyon Maneuver Site

Capability Data

Mission Areas	Landspace	Airspace	Seaspace	Underseaspace	Targets	Threats	Scoring & Feedback System	Infrastructure	Range Support	Small Arms Ranges	Collective Ranges	MOUT Facilities	Suite of Ranges
Movement and Maneuver	NMC	PMC			FMC		NMC	FMC	FMC	FMC	PMC	FMC	
Fire Support	NMC	PMC			FMC		NMC	FMC	FMC		PMC	FMC	
Intelligence	NMC	PMC			FMC		NMC	FMC	FMC			FMC	
Sustainment	NMC							FMC	FMC	FMC	PMC	FMC	
Command Control	NMC	PMC			FMC		NMC	FMC	FMC			FMC	
Protection	NMC				FMC		NMC	FMC	FMC	FMC	PMC	FMC	

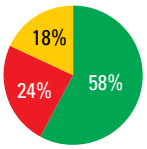
Legend: FMC PMC NMC

Encroachment Data

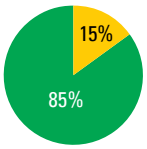
Mission Areas	Threatened and Endangered Species	Munitions Restrictions	Spectrum	Maritime Sustainability	Airspace	Air Quality	Noise Restrictions	Adjacent Land Use	Cultural Resources	Water Quality/Supply	Wetlands	Range Transients
Movement and Maneuver	Minimal		Minimal		Minimal	Moderate	Minimal	Moderate	Minimal			
Fire Support	Minimal		Minimal		Minimal	Moderate	Minimal	Moderate	Minimal			
Intelligence	Minimal		Minimal		Minimal		Minimal	Minimal	Minimal			
Sustainment	Minimal		Minimal						Minimal			
Command Control	Minimal		Minimal		Minimal				Minimal			
Protection	Minimal		Minimal			Moderate	Minimal	Minimal	Minimal			

Legend: Minimal Moderate Severe

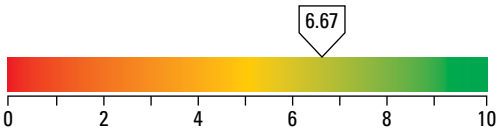
Summary Percent Distribution



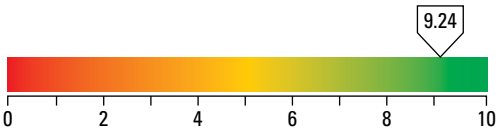
Summary Percent Distribution



Overall Capability Score



Overall Encroachment Score



Summary Observations

- Scoring and Feedback Systems
- Movement and Maneuver and Fire Support
- Landspace

Summary Observations

- Air Quality

Figure 3-6 Army Capability and Encroachment Assessment Detail (Continued)

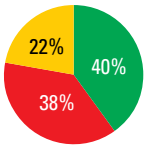
Army Range: Fort Drum

Capability Data

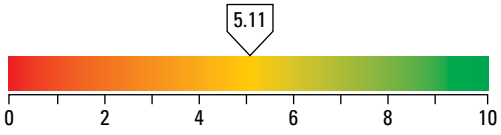
Mission Areas	Landspace	Airspace	Seaspace	Underseaspace	Targets	Threats	Scoring & Feedback System	Infrastructure	Range Support	Small Arms Ranges	Collective Ranges	MOUT Facilities	Suite of Ranges
Movement and Maneuver	NMC	PMC			FMC		NMC	NMC	PMC	FMC	FMC	FMC	
Fire Support	NMC	PMC			FMC		NMC	NMC	PMC		FMC	FMC	
Intelligence	NMC	PMC			FMC		NMC	NMC	PMC			FMC	
Sustainment	NMC							NMC	PMC	FMC	FMC	FMC	
Command Control	NMC	PMC			FMC		NMC	NMC	PMC			FMC	
Protection	NMC				FMC		NMC	NMC	PMC	FMC	FMC	FMC	

Legend: FMC PMC NMC

Summary Percent Distribution



Overall Capability Score



Summary Observations

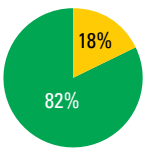
- Landspace and Infrastructure
- Movement and Maneuver, Fire Support, Intelligence, and Command and Control

Encroachment Data

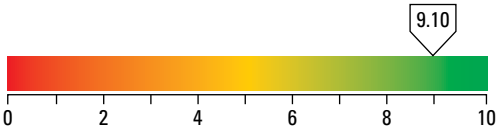
Mission Areas	Threatened and Endangered Species	Munitions Restrictions	Spectrum	Maritime Sustainability	Airspace	Air Quality	Noise Restrictions	Adjacent Land Use	Cultural Resources	Water Quality/Supply	Wetlands	Range Transients
Movement and Maneuver	Minimal		Minimal		Minimal	Minimal	Moderate	Moderate	Minimal		Minimal	
Fire Support	Minimal		Minimal		Minimal	Minimal	Moderate	Moderate	Minimal		Minimal	
Intelligence	Minimal		Minimal		Minimal		Moderate	Moderate	Minimal		Minimal	
Sustainment	Minimal		Minimal						Minimal		Minimal	
Command Control	Minimal		Minimal		Minimal				Minimal		Minimal	
Protection	Minimal		Minimal			Minimal	Moderate	Minimal	Minimal		Minimal	

Legend: Minimal Moderate Severe

Summary Percent Distribution



Overall Encroachment Score



Summary Observations

- Noise Restrictions and Adjacent Land Use
- Movement and Maneuver, Fire Support, Intelligence, and Protection

Figure 3-6 Army Capability and Encroachment Assessment Detail (Continued)

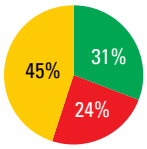
Army Range: Fort Hood

Capability Data

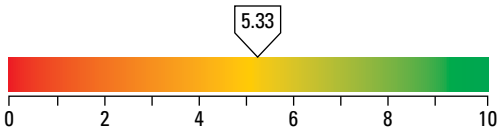
Mission Areas	Landspace	Airspace	Seaspace	Underseaspace	Targets	Threats	Scoring & Feedback System	Infrastructure	Range Support	Small Arms Ranges	Collective Ranges	MOUT Facilities	Suite of Ranges
Movement and Maneuver	NMC	PMC			FMC		NMC	FMC	PMC	FMC	PMC	PMC	
Fire Support	NMC	PMC			FMC		NMC	FMC	PMC		PMC	PMC	
Intelligence	NMC	PMC			FMC		NMC	FMC	PMC			PMC	
Sustainment	NMC							FMC	PMC	FMC	PMC	PMC	
Command Control	NMC	PMC			FMC		NMC	FMC	PMC			PMC	
Protection	NMC				FMC		NMC	FMC	PMC	FMC	PMC	PMC	

Legend: FMC PMC NMC

Summary Percent Distribution



Overall Capability Score



Summary Observations

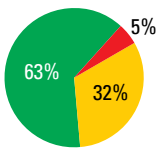
- Landspace
- Movement and Maneuver and Fire Support

Encroachment Data

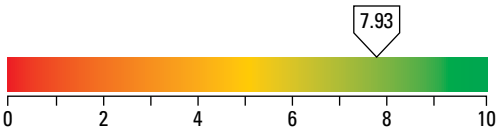
Mission Areas	Threatened and Endangered Species	Munitions Restrictions	Spectrum	Maritime Sustainability	Airspace	Air Quality	Noise Restrictions	Adjacent Land Use	Cultural Resources	Water Quality/Supply	Wetlands	Range Transients
Movement and Maneuver	PMC		FMC		PMC	NMC	FMC	PMC	FMC		FMC	
Fire Support	PMC		FMC		PMC	PMC	FMC	FMC	FMC		FMC	
Intelligence	PMC		FMC		PMC		FMC	FMC	FMC		FMC	
Sustainment	PMC		FMC					FMC	FMC		FMC	
Command Control	PMC		FMC		PMC			FMC	FMC		FMC	
Protection	PMC		FMC			NMC	FMC	PMC	FMC		FMC	

Legend: Minimal Moderate Severe

Summary Percent Distribution



Overall Encroachment Score



Summary Observations

- Threatened and Endangered Species/ Critical Habitat, Air Quality, and Adjacent Land Use
- Movement and Maneuver, Fire Support, and Protection

Figure 3-6 Army Capability and Encroachment Assessment Detail (Continued)

Army Range: Fort Irwin

Capability Data

Mission Areas	Landspace	Airspace	Seaspace	Underseaspace	Targets	Threats	Scoring & Feedback System	Infrastructure	Range Support	Small Arms Ranges	Collective Ranges	MOUT Facilities	Suite of Ranges
Movement and Maneuver	FMC	PMC			FMC	FMC	FMC	NMC	FMC	FMC	PMC	PMC	
Fire Support	FMC	PMC			FMC	FMC	FMC	NMC	FMC		PMC	PMC	
Intelligence	FMC	PMC			FMC	FMC	FMC	NMC	FMC			PMC	
Sustainment	FMC					FMC		NMC	FMC	FMC	PMC	PMC	
Command Control	FMC	PMC			FMC	FMC	FMC	NMC	FMC			PMC	
Protection	FMC				FMC	FMC	FMC	NMC	FMC	FMC	PMC	PMC	

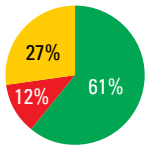
Legend: FMC, PMC, NMC

Encroachment Data

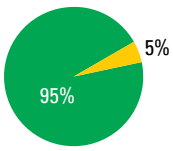
Mission Areas	Threatened and Endangered Species	Munitions Restrictions	Spectrum	Maritime Sustainability	Airspace	Air Quality	Noise Restrictions	Adjacent Land Use	Cultural Resources	Water Quality/Supply	Wetlands	Range Transients
Movement and Maneuver	Minimal		Minimal		Minimal	Minimal	Minimal	Moderate	Minimal			
Fire Support	Minimal		Minimal		Minimal	Minimal	Minimal	Minimal	Minimal			
Intelligence	Minimal		Minimal		Minimal	Minimal	Minimal	Moderate	Minimal			
Sustainment	Minimal		Minimal			Minimal	Minimal	Minimal	Minimal			
Command Control	Minimal		Minimal		Minimal	Minimal	Minimal	Minimal	Minimal			
Protection	Minimal		Minimal			Minimal	Minimal	Minimal	Minimal			

Legend: Minimal, Moderate, Severe

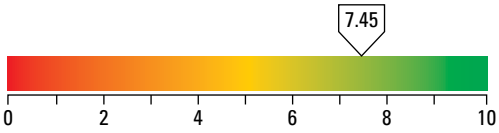
Summary Percent Distribution



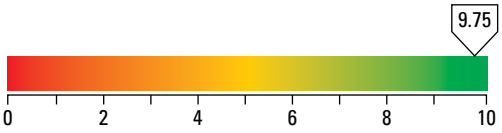
Summary Percent Distribution



Overall Capability Score



Overall Encroachment Score



Summary Observations

- Infrastructure
- Movement and Maneuver and Fire Support

Summary Observations

- Adjacent Land
- Movement and Maneuver and Fire Support

Figure 3-6 Army Capability and Encroachment Assessment Detail (Continued)

Army Range: Fort Lewis

Capability Data

Mission Areas	Landspace	Airspace	Seaspace	Underseaspace	Targets	Threats	Scoring & Feedback System	Infrastructure	Range Support	Small Arms Ranges	Collective Ranges	MOUT Facilities	Suite of Ranges
Movement and Maneuver	PMC	PMC			FMC		PMC	FMC	PMC	FMC	FMC	FMC	
Fire Support	PMC	PMC			FMC		PMC	FMC	PMC		FMC	FMC	
Intelligence	PMC	PMC			FMC		PMC	FMC	PMC			FMC	
Sustainment	PMC							FMC	PMC	FMC	FMC	FMC	
Command Control	PMC	PMC			FMC		PMC	FMC	PMC			FMC	
Protection	PMC				FMC		PMC	FMC	PMC	FMC	FMC	FMC	

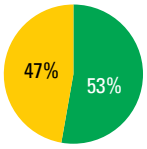
Legend: FMC PMC NMC

Encroachment Data

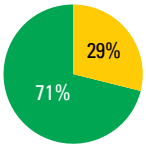
Mission Areas	Threatened and Endangered Species	Munitions Restrictions	Spectrum	Maritime Sustainability	Airspace	Air Quality	Noise Restrictions	Adjacent Land Use	Cultural Resources	Water Quality/Supply	Wetlands	Range Transients
Movement and Maneuver	PMC		FMC		FMC	FMC	FMC	PMC	FMC		FMC	
Fire Support	PMC		FMC		FMC	FMC	FMC	PMC	FMC		FMC	
Intelligence	PMC		FMC		FMC		FMC	PMC	FMC		FMC	
Sustainment	PMC		FMC					PMC	FMC		FMC	
Command Control	PMC		FMC		FMC			PMC	FMC		FMC	
Protection	PMC		FMC			FMC	FMC	PMC	FMC		FMC	

Legend: Minimal Moderate Severe

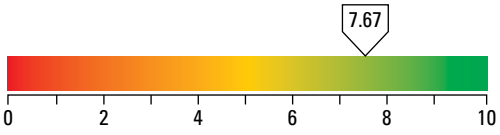
Summary Percent Distribution



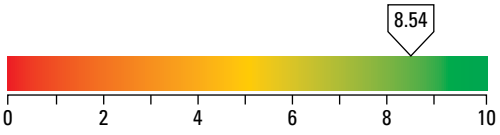
Summary Percent Distribution



Overall Capability Score



Overall Encroachment Score



Summary Observations

- Landspace and Infrastructure
- Movement and Maneuver, Fire Support, Intelligence, and Command and Control

Summary Observations

- Threatened & Endangered Species/Critical Habitat

Figure 3-6 Army Capability and Encroachment Assessment Detail (Continued)

Army Range: Fort Polk

Capability Data

Mission Areas	Landspace	Airspace	Seaspace	Underseaspace	Targets	Threats	Scoring & Feedback System	Infrastructure	Range Support	Small Arms Ranges	Collective Ranges	MOUT Facilities	Suite of Ranges
Movement and Maneuver	PMC	PMC			FMC	FMC	FMC	FMC	FMC	PMC	FMC	FMC	
Fire Support	PMC	PMC			FMC	FMC	FMC	FMC	FMC		FMC	FMC	
Intelligence	PMC	PMC			FMC	FMC	FMC	FMC	FMC			FMC	
Sustainment	PMC					FMC		FMC	FMC	PMC	FMC	FMC	
Command Control	PMC	PMC			FMC	FMC	FMC	FMC	FMC			FMC	
Protection	PMC				FMC	FMC	FMC	FMC	FMC	PMC	FMC	FMC	

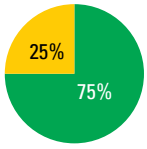
Legend: FMC, PMC, NMC

Encroachment Data

Mission Areas	Threatened and Endangered Species	Munitions Restrictions	Spectrum	Maritime Sustainability	Airspace	Air Quality	Noise Restrictions	Adjacent Land Use	Cultural Resources	Water Quality/Supply	Wetlands	Range Transients
Movement and Maneuver	Minimal		Minimal		Minimal	Minimal	Minimal	Minimal	Minimal		Minimal	
Fire Support	Minimal		Minimal		Minimal	Minimal	Minimal	Minimal	Minimal		Minimal	
Intelligence	Minimal		Minimal		Minimal		Minimal	Minimal	Minimal		Minimal	
Sustainment	Minimal		Minimal					Minimal	Minimal		Minimal	
Command Control	Minimal		Minimal		Minimal			Minimal	Minimal		Minimal	
Protection	Minimal		Minimal			Moderate	Minimal	Minimal	Minimal		Minimal	

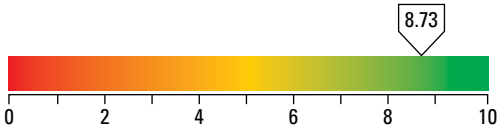
Legend: Minimal, Moderate, Severe

Summary Percent Distribution

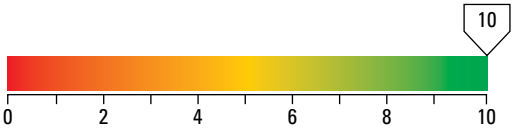


Summary Percent Distribution

Overall Capability Score



Overall Encroachment Score



Summary Observations

- Landspace
- Movement and Maneuver and Sustainment

Summary Observations

- Minimal Encroachment Issues

Figure 3-6 Army Capability and Encroachment Assessment Detail (Continued)

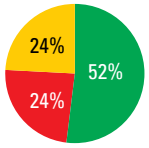
Army Range: Fort Riley

Capability Data

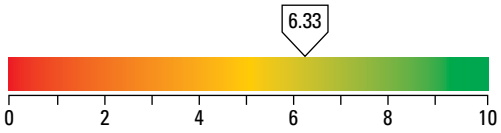
Mission Areas	Landspace	Airspace	Seaspace	Underseaspace	Targets	Threats	Scoring & Feedback System	Infrastructure	Range Support	Small Arms Ranges	Collective Ranges	MOUT Facilities	Suite of Ranges
Movement and Maneuver	FMC	PMC			FMC		NMC	FMC	FMC	PMC	PMC	FMC	
Fire Support	FMC	PMC			FMC		NMC	FMC	FMC		PMC	FMC	
Intelligence	FMC	PMC			FMC		NMC	FMC	FMC			FMC	
Sustainment	FMC							FMC	FMC	PMC	PMC	FMC	
Command Control	FMC	PMC			FMC		NMC	FMC	FMC			FMC	
Protection	FMC				FMC		NMC	FMC	FMC	PMC	PMC	FMC	

Legend: FMC PMC NMC

Summary Percent Distribution



Overall Capability Score



Summary Observations

- Landspace
- Movement and Maneuver

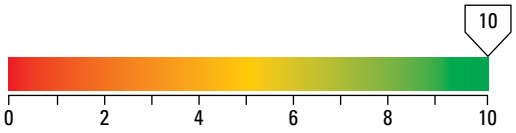
Encroachment Data

Mission Areas	Threatened and Endangered Species	Munitions Restrictions	Spectrum	Maritime Sustainability	Airspace	Air Quality	Noise Restrictions	Adjacent Land Use	Cultural Resources	Water Quality/Supply	Wetlands	Range Transients
Movement and Maneuver	Minimal		Minimal		Minimal	Minimal	Minimal	Minimal	Minimal			
Fire Support	Minimal		Minimal		Minimal	Minimal	Minimal	Minimal	Minimal			
Intelligence	Minimal		Minimal		Minimal		Minimal	Minimal	Minimal			
Sustainment	Minimal		Minimal						Minimal			
Command Control	Minimal		Minimal		Minimal				Minimal			
Protection	Minimal		Minimal			Moderate	Minimal	Minimal	Minimal			

Legend: Minimal Moderate Severe

Summary Percent Distribution

Overall Encroachment Score



Summary Observations

- Minimal Encroachment Issues

Figure 3-6 Army Capability and Encroachment Assessment Detail (Continued)

Army Range: Fort Stewart

Capability Data

Mission Areas	Landspace	Airspace	Seaspace	Underseaspace	Targets	Threats	Scoring & Feedback System	Infrastructure	Range Support	Small Arms Ranges	Collective Ranges	MOUT Facilities	Suite of Ranges
	Capability Attributes												
Movement and Maneuver	PMC	PMC			FMC		NMC	FMC	PMC	PMC	PMC	FMC	
Fire Support	PMC	PMC			FMC		NMC	FMC	PMC		PMC	FMC	
Intelligence	PMC	PMC			FMC		NMC	FMC	PMC			FMC	
Sustainment	PMC							FMC	PMC	PMC	PMC	FMC	
Command Control	PMC	PMC			FMC		NMC	FMC	PMC			FMC	
Protection	PMC				FMC		NMC	FMC	PMC	PMC	PMC	FMC	

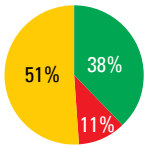
Legend: FMC PMC NMC

Encroachment Data

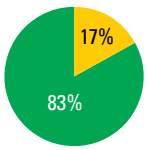
Mission Areas	Threatened and Endangered Species	Munitions Restrictions	Spectrum	Maritime Sustainability	Airspace	Air Quality	Noise Restrictions	Adjacent Land Use	Cultural Resources	Water Quality/Supply	Wetlands	Range Transients
	Encroachment Factors											
Movement and Maneuver	Minimal		Minimal		Minimal	Moderate	Minimal	Minimal	Minimal		Moderate	
Fire Support	Minimal		Minimal			Moderate	Minimal	Minimal	Minimal		Moderate	
Intelligence	Minimal		Minimal				Minimal	Minimal	Minimal		Moderate	
Sustainment	Minimal		Minimal						Minimal		Moderate	
Command Control	Minimal		Minimal						Minimal		Moderate	
Protection	Minimal		Minimal			Moderate	Minimal	Minimal	Minimal		Moderate	

Legend: Minimal Moderate Severe

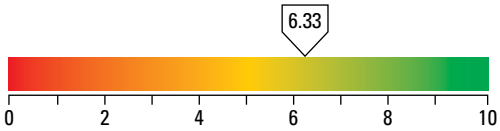
Summary Percent Distribution



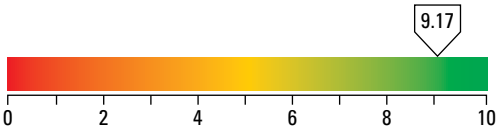
Summary Percent Distribution



Overall Capability Score



Overall Encroachment Score



Summary Observations

- Scoring & Feedback Systems
- All Mission Areas

Summary Observations

- Wetlands

Figure 3-6 Army Capability and Encroachment Assessment Detail (Continued)

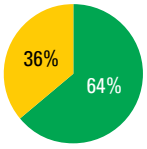
Army Range: Fort Wainwright

Capability Data

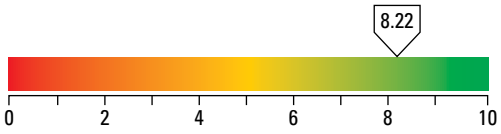
Mission Areas	Landspace	Airspace	Seaspace	Underseaspace	Targets	Threats	Scoring & Feedback System	Infrastructure	Range Support	Small Arms Ranges	Collective Ranges	MOUT Facilities	Suite of Ranges
Movement and Maneuver	FMC	PMC			FMC		FMC	PMC	PMC	FMC	FMC	FMC	
Fire Support	FMC	PMC			FMC		FMC	PMC	PMC		FMC	FMC	
Intelligence	FMC	PMC			FMC		FMC	PMC	PMC			FMC	
Sustainment	FMC							PMC	PMC	FMC	FMC	FMC	
Command Control	FMC	PMC			FMC		FMC	PMC	PMC			FMC	
Protection	FMC				FMC		FMC	PMC	PMC	FMC	FMC	FMC	

Legend: FMC PMC NMC

Summary Percent Distribution



Overall Capability Score



Summary Observations

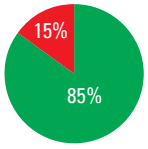
- Infrastructure and Range Support
- Movement and Maneuver, Fire Support, Intelligence, and Command and Control

Encroachment Data

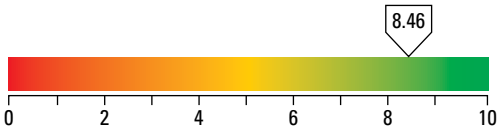
Mission Areas	Threatened and Endangered Species	Munitions Restrictions	Spectrum	Maritime Sustainability	Airspace	Air Quality	Noise Restrictions	Adjacent Land Use	Cultural Resources	Water Quality/Supply	Wetlands	Range Transients
Movement and Maneuver	Minimal		Minimal		Minimal	Moderate	Minimal	Minimal	Minimal		Severe	
Fire Support	Minimal		Minimal		Minimal	Moderate	Minimal	Minimal	Minimal		Severe	
Intelligence	Minimal		Minimal		Minimal		Minimal	Minimal	Minimal		Severe	
Sustainment	Minimal		Minimal						Minimal		Severe	
Command Control	Minimal		Minimal		Minimal				Minimal		Severe	
Protection	Minimal		Minimal			Moderate	Minimal	Minimal	Minimal		Severe	

Legend: Minimal Moderate Severe

Summary Percent Distribution



Overall Encroachment Score



Summary Observations

- Wetlands

Figure 3-6 Army Capability and Encroachment Assessment Detail (Continued)

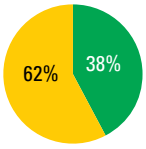
Army Range: Yakima Training Area

Capability Data

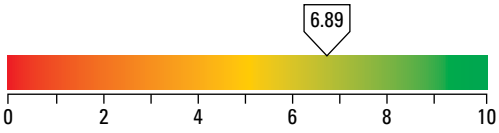
Mission Areas	Landspace	Airspace	Seaspace	Underseaspace	Targets	Threats	Scoring & Feedback System	Infrastructure	Range Support	Small Arms Ranges	Collective Ranges	MOUT Facilities	Suite of Ranges
Movement and Maneuver	PMC	PMC			FMC		PMC	FMC	PMC	PMC	PMC	FMC	
Fire Support	PMC	PMC			FMC		PMC	FMC	PMC		PMC	FMC	
Intelligence	PMC	PMC			FMC		PMC	FMC	PMC			FMC	
Sustainment	PMC							FMC	PMC	PMC	PMC	FMC	
Command Control	PMC	PMC			FMC		PMC	FMC	PMC			FMC	
Protection	PMC				FMC		PMC	FMC	PMC	PMC	PMC	FMC	

Legend: FMC PMC NMC

Summary Percent Distribution



Overall Capability Score



Summary Observations

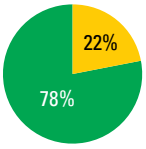
- Landspace and Range Support
- Movement and Maneuver

Encroachment Data

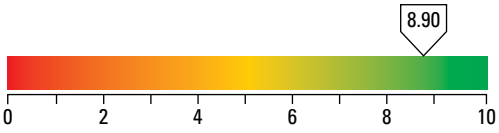
Mission Areas	Threatened and Endangered Species	Munitions Restrictions	Spectrum	Maritime Sustainability	Airspace	Air Quality	Noise Restrictions	Adjacent Land Use	Cultural Resources	Water Quality/Supply	Wetlands	Range Transients
Movement and Maneuver	Minimal		Severe		Severe	Moderate	Severe	Severe	Severe		Severe	
Fire Support	Minimal		Severe		Severe	Moderate	Severe	Severe	Severe		Severe	
Intelligence	Minimal		Severe		Severe		Severe	Severe	Severe		Severe	
Sustainment	Minimal		Severe					Severe	Severe		Severe	
Command Control	Minimal		Severe		Severe			Severe	Severe		Severe	
Protection	Minimal		Severe			Moderate	Severe	Severe	Severe		Severe	

Legend: Minimal Moderate Severe

Summary Percent Distribution



Overall Encroachment Score



Summary Observations

- Threatened & Endangered Species/Critical Habitat
- Movement and Maneuver, Fire Support, and Protection

Army Training Range Capability and Encroachment Assessment Results

The results of the Army's overall range capability and encroachment assessments, based on data received from 14 Ranges/Range Complexes are presented side-by-side in Table 3-3. Specific consideration of the relationship between encroachment and capability is an emerging concept that will be further developed in future reports.

Table 3-3 Army Range Capability and Encroachment Assessment Comparison

Range Name	Capability Score (Ranked from Lowest to Highest)	Encroachment Score
Fort Benning	6.33	8.25
Fort Bliss	4.78	10
Fort Bragg	5.33	10
Fort Campbell	5.22	10
Fort Carson / Pinon Canyon Maneuver Site	6.67	9.24
Fort Drum	5.11	9.10
Fort Hood	5.33	7.93

Table 3-3 Army Range Capability and Encroachment Assessment Comparison (continued)

Range Name	Capability Score (Ranked from Lowest to Highest)	Encroachment Score
Fort Irwin	7.45	9.75
Fort Lewis	7.67	8.54
Fort Polk	8.73	10
Fort Riley	6.33	10
Fort Stewart	6.33	9.17
Fort Wainwright	8.22	8.46
Yakima Training Area	6.89	8.9

3.2.2 Navy

Navy Training Range Capability Assessment Results

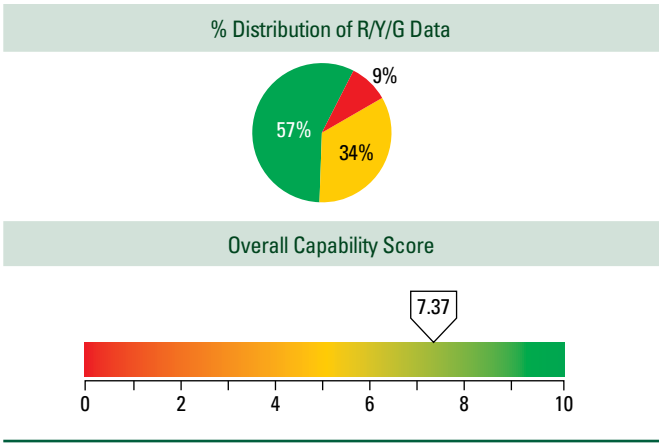
The results of the Navy's overall range capability assessment are:

- Navy's overall Capability Score = 7.30
- 9% of the Navy's Range Mission Areas are assessed as NMC
- 34% of the Navy's Range Mission Areas are assessed as PMC
- 57% of the Navy's Range Mission Areas are assessed as FMC

Shortfalls were identified in the Scoring and Feedback Systems, Landspace, Targets, and Threats capability attributes. All eight Navy mission areas are impacted. Impacted ranges with a capability score less than the overall Navy score of 7.30 include: Atlantic Test Range (ATR), Fallon, El Centro, Japan, Key West, Mariana Island, Narragansett Bay, Okinawa, and SOCAL. Examples of specific comments from the Navy's assessment process are:

- No confluent landspace and seaspace to support amphibious landing and MOUT Facility for NSW (ATR)
- Electronic Combat threat level 2 is not available with a limited maneuver area and live-fire restrictions for NSW (Fallon)
- The current range infrastructure does not adequately meet requirements for shallow water instrumented range areas for use in EER, LFA, and other ASW training. Similarly, the range complex does not currently have the adequate AMW range capability (instrumented mine shapes, false targets) to support this training requirement. (SOCAL)
- Scoring and Feedback Systems, Targets, Threats, and Range Support Systems are all equally affecting AAW and ASUW (Key West)
- Scoring and Feedback Systems, Threats, Targets, and Landspace have the greatest effect on missions. (Japan, Okinawa)
- Deficiencies across all capabilities affecting all mission areas of this developing training capability (Mariana Islands)
- Limited area with associated threats that have sufficient functionality to support training (El Centro)
- Scoring and Feedback System, Targets, Threats, and Landspace (Narragansett Bay)

Figure 3-7 Summary: Navy Range Capability Assessment



Navy Training Range Encroachment Assessment Results

The results of the Navy's overall range encroachment assessment are:

- Navy's overall Encroachment Score = 9.10
- 1% of the Navy's Range Mission Areas are severely impacted (High risk)
- 16% of the Navy's Range Mission Areas are moderately impacted (Medium risk)
- 83% of the Navy's Range Missions Ares are minimally impacted (Minimal risk)

Encroachment factors contributing constraints were identified as Maritime Sustainability, Threatened and Endangered Species, Spectrum, and Airspace, resulting in all eight Navy mission areas being impacted. Ranges impacted, those with a score less than the Navy's overall score of 9.10, are: ATR, Fallon, Jacksonville, Atlantic City, Hawaii, Mariana Island, Narragansett Bay, SOCAL, and VACAPES. Examples of specific comments from the Navy's assessment process are:

- Frequency spectrum, airspace, noise restrictions, and adjacent land use moderately affecting training missions (ATR)
- Land and airspace restrictions affecting strike warfare (Fallon)
- Maritime protective and mitigation measures, regulatory requirements, and court-directed training restrictions all contributed to reduced training flexibility and opportunities, segmented training, and ultimately reduced training realism, particularly regarding integrated warfare training. (Jacksonville)

- Endangered species/critical habitat, frequency spectrum, and maritime sustainability share encroachment pressures on training operations (Atlantic City, Hawaii, Mariana Island, Naragansett Bay, SOCAL, and VACAPES)

Detailed Navy Training Range Capability and Encroachment Assessment Results

The following tables and figures present detailed information on the Navy's Training Range Capability and Encroachment Assessments. The first set of tables detail the methodology used for determining the weighted averages that make-up an individual range capability and encroachment score. This information is shown for all the Navy ranges assessed. The set of figures that follow provide assessment detail at the range level specific to mission areas and capability attributes and encroachment factors.

Figure 3-8 Summary: Navy Range Encroachment Assessment

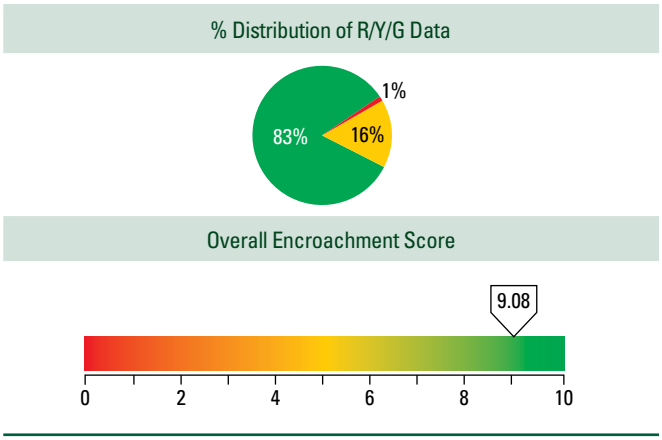
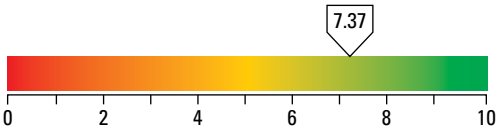


Table 3-4 Navy Range Capability Assessment Data Analysis

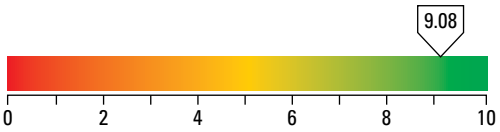
Navy Range Capability Assessment Detail



Range	NMC	PMC	FMC	Total Weighted Scores	Total Assessment Points	Weighted Average
Atlantic City	0	3	11	125	14	8.93
Atlantic Test Range	2	47	41	645	90	7.17
AUTEC	0	1	35	355	36	9.86
Boston	0	3	11	125	14	8.93
China Lake	0	1	40	405	41	9.88
El Centro	0	13	5	115	18	6.39
Fallon	2	16	5	130	23	5.65
Gomex	0	4	25	270	29	9.31
Guantanamo	0	0	37	370	37	10.00
Hawaii	4	20	34	440	58	7.59
Jacksonville	1	18	25	340	44	7.73
Japan	9	22	13	240	44	5.45
Key West	0	7	7	105	14	7.50
Mariana Islands	37	11	11	165	59	2.80
Narragansett Bay	1	2	4	50	7	7.14
Navy Cherry Point	3	21	28	385	52	7.40
NOCAL	4	8	18	220	30	7.33
Northwest	0	21	31	415	52	7.98
Okinawa	11	29	10	245	50	4.90
Point Mugu Sea	0	4	58	600	62	9.68
SOCAL	6	28	26	400	60	6.67
VACAPES	2	19	23	325	44	7.39
Totals	**82**	**298**	**498**	**6,470**	**878**	**7.37**

Table 3-5 Navy Range Encroachment Assessment Data Analysis

Navy Range Encroachment Assessment Detail



Range	Severe	Moderate	Minimal	Total Weighted Scores	Total Assessment Points	Weighted Average
Atlantic City	0	6	18	210	24	8.75
Atlantic Test Range	0	32	64	800	96	8.33
AUTEC	0	9	51	555	60	9.25
Boston	0	4	20	220	24	9.17
China Lake	0	7	37	405	44	9.20
El Centro	0	1	35	355	36	9.86
Fallon	0	10	38	430	48	8.96
Gomex	0	7	41	445	48	9.27
Guantanamo	1	7	52	555	60	9.25
Hawaii	2	16	78	860	96	8.96
Jacksonville	4	17	63	715	84	8.51
Japan	2	6	76	790	84	9.40
Key West	0	1	35	355	36	9.86
Mariana Islands	1	27	68	815	96	8.49
Narragansett Bay	0	3	9	105	12	8.75
Navy Cherry Point	2	8	74	780	84	9.29
NOCAL	1	2	45	460	48	9.58
Northwest	0	10	74	790	84	9.40
Okinawa	0	13	71	775	84	9.23
Point Mugu Sea	0	7	65	685	72	9.51
SOCAL	0	18	78	870	96	9.06
VACAPES	3	13	57	635	73	8.70
Totals	**16**	**224**	**1,149**	**12,610**	**1,389**	**9.08**

Figure 3-9 Navy Capability and Encroachment Assessment Detail

Navy Range: Atlantic City

Capability Data

Mission Areas	Landspace	Airspace	Seaspace	Underseaspace	Targets	Threats	Scoring & Feedback System	Infrastructure	Range Support	Small Arms Ranges	Collective Ranges	MOUT Facilities	Suite of Ranges
Strike Warfare													
Electronic Combat													
Anti-Air Warfare	FMC	FMC	FMC		FMC	PMC	FMC		PMC				
Anti-Surface Warfare		FMC	FMC	FMC	FMC	FMC	FMC		PMC				
Mine Warfare													
Amphibious Warfare													
Anti-Submarine													
Naval Special Warfare													

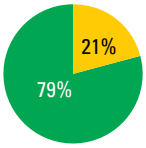
Legend: FMC, PMC, NMC

Encroachment Data

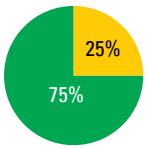
Mission Areas	Threatened and Endangered Species	Munitions Restrictions	Spectrum	Maritime Sustainability	Airspace	Air Quality	Noise Restrictions	Adjacent Land Use	Cultural Resources	Water Quality/Supply	Wetlands	Range Transients
Strike Warfare												
Electronic Combat												
Anti-Air Warfare												
Anti-Surface Warfare	Minimal	Moderate	Minimal	Minimal	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate
Mine Warfare												
Amphibious Warfare												
Anti-Submarine	Minimal	Moderate	Minimal	Minimal	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate
Naval Special Warfare												

Legend: Minimal, Moderate, Severe

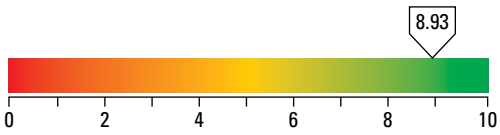
Summary Percent Distribution



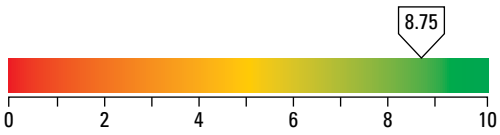
Summary Percent Distribution



Overall Capability Score



Overall Encroachment Score



Summary Observations

- Range Support
- Limited to AAW and ASUW Missions

Summary Observations

- Endangered Species/Critical Habitat
- Frequency Spectrum
- Maritime Sustainability

Figure 3-9 Navy Capability and Encroachment Assessment Detail (continued)

Navy Range: Atlantic Test Range

Capability Data

Mission Areas	Landspace	Airspace	Seaspace	Underseaspace	Targets	Threats	Scoring & Feedback System	Infrastructure	Range Support	Small Arms Ranges	Collective Ranges	MOUT Facilities	Suite of Ranges
Strike Warfare	PMC	PMC	PMC		PMC	PMC	FMC	FMC	FMC	FMC	FMC	PMC	PMC
Electronic Combat	PMC	PMC	PMC		FMC	FMC	FMC	FMC	FMC		FMC	PMC	PMC
Anti-Air Warfare	FMC	PMC	FMC		FMC	FMC	FMC	FMC	FMC		PMC		PMC
Anti-Surface Warfare	FMC	PMC	PMC		FMC		FMC	FMC	FMC	PMC	PMC	PMC	PMC
Mine Warfare		PMC	FMC	PMC	PMC	PMC	FMC	FMC	FMC	PMC	PMC		PMC
Amphibious Warfare	NMC	PMC	PMC		PMC	PMC	FMC	FMC	FMC	PMC	PMC	NMC	PMC
Anti-Submarine		FMC	FMC	PMC	PMC	PMC	FMC	FMC	FMC		PMC		PMC
Naval Special Warfare	PMC	FMC	FMC	PMC	FMC	PMC	FMC	FMC	FMC	PMC	PMC	PMC	PMC

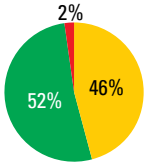
Legend: FMC PMC NMC

Encroachment Data

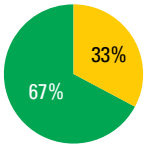
Mission Areas	Threatened and Endangered Species	Munitions Restrictions	Spectrum	Maritime Sustainability	Airspace	Air Quality	Noise Restrictions	Adjacent Land Use	Cultural Resources	Water Quality/Supply	Wetlands	Range Transients
Strike Warfare	Minimal	Minimal	Moderate	Minimal	Moderate	Minimal	Moderate	Moderate	Minimal	Minimal	Minimal	Minimal
Electronic Combat	Minimal	Minimal	Moderate	Minimal	Moderate	Minimal	Moderate	Moderate	Minimal	Minimal	Minimal	Minimal
Anti-Air Warfare	Minimal	Minimal	Moderate	Minimal	Moderate	Minimal	Moderate	Moderate	Minimal	Minimal	Minimal	Minimal
Anti-Surface Warfare	Minimal	Minimal	Moderate	Minimal	Moderate	Minimal	Moderate	Moderate	Minimal	Minimal	Minimal	Minimal
Mine Warfare	Minimal	Minimal	Moderate	Minimal	Moderate	Minimal	Moderate	Moderate	Minimal	Minimal	Minimal	Minimal
Amphibious Warfare	Minimal	Minimal	Moderate	Minimal	Moderate	Minimal	Moderate	Moderate	Minimal	Minimal	Minimal	Minimal
Anti-Submarine	Minimal	Minimal	Moderate	Minimal	Moderate	Minimal	Moderate	Moderate	Minimal	Minimal	Minimal	Minimal
Naval Special Warfare	Minimal	Minimal	Moderate	Minimal	Moderate	Minimal	Moderate	Moderate	Minimal	Minimal	Minimal	Minimal

Legend: Minimal Moderate Severe

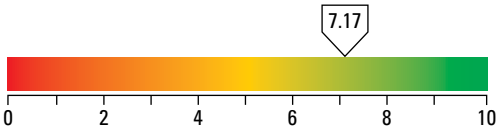
Summary Percent Distribution



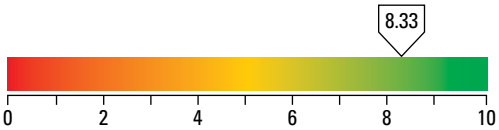
Summary Percent Distribution



Overall Capability Score



Overall Encroachment Score



Summary Observations

- Landspace and Air Space.
- Lack of MOUT Facility Severely Impacts AMW
- Limited to Unit Level and Intermediate Training; No-drop Only
- Available T&E Infrastructure Restrict AMW Training and Weapons Employment

Summary Observations

- Spectrum
- Air Space
- Noise Restrictions

Figure 3-9 Navy Capability and Encroachment Assessment Detail (continued)

Navy Range: AUTEC

Capability Data

Mission Areas	Landspace	Airspace	Seaspace	Underseaspace	Targets	Threats	Scoring & Feedback System	Infrastructure	Range Support	Small Arms Ranges	Collective Ranges	MOUT Facilities	Suite of Ranges
Strike Warfare													
Electronic Combat	●	●	●	●	●	●	●		●				
Anti-Air Warfare													
Anti-Surface Warfare		●	●	●	●	●	●		●				
Mine Warfare		●	●	●	●		●		●				
Amphibious Warfare													
Anti-Submarine		●	●	●	●	●	●		●				
Naval Special Warfare	●	●	●	●	●	●	●		●				

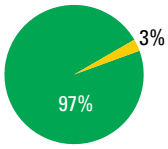
Legend: FMC ● PMC ● NMC ●

Encroachment Data

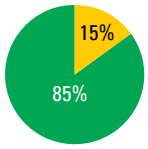
Mission Areas	Threatened and Endangered Species	Munitions Restrictions	Spectrum	Maritime Sustainability	Airspace	Air Quality	Noise Restrictions	Adjacent Land Use	Cultural Resources	Water Quality/Supply	Wetlands	Range Transients
Strike Warfare												
Electronic Combat	●	●	●	●	●	●	●	●	●	●	●	●
Anti-Air Warfare												
Anti-Surface Warfare	●	●	●	●	●	●	●	●	●	●	●	●
Mine Warfare	●	●	●	●	●	●	●	●	●	●	●	●
Amphibious Warfare												
Anti-Submarine	●	●	●	●	●	●	●	●	●	●	●	●
Naval Special Warfare	●	●	●	●	●	●	●	●	●	●	●	●

Legend: Minimal ● Moderate ● Severe ●

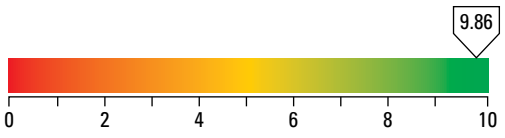
Summary Percent Distribution



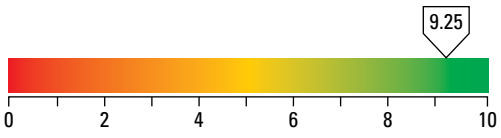
Summary Percent Distribution



Overall Capability Score



Overall Encroachment Score



Summary Observations

- Targets

Summary Observations

- Sonar
- Range Transients
- Airspace

Figure 3-9 Navy Capability and Encroachment Assessment Detail (continued)

Navy Range: Boston

Capability Data

Mission Areas	Landspace	Airspace	Seaspace	Underseaspace	Targets	Threats	Scoring & Feedback System	Infrastructure	Range Support	Small Arms Ranges	Collective Ranges	MOUT Facilities	Suite of Ranges
Strike Warfare													
Electronic Combat													
Anti-Air Warfare													
Anti-Surface Warfare		●	●	●	●	●	●		●				
Mine Warfare													
Amphibious Warfare													
Anti-Submarine		●	●	●	●	●	●		●				
Naval Special Warfare													

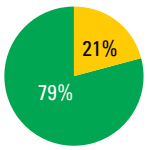
Legend: FMC ● PMC ● NMC ●

Encroachment Data

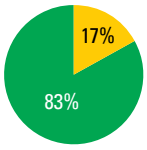
Mission Areas	Threatened and Endangered Species	Munitions Restrictions	Spectrum	Maritime Sustainability	Airspace	Air Quality	Noise Restrictions	Adjacent Land Use	Cultural Resources	Water Quality/Supply	Wetlands	Range Transients
Strike Warfare												
Electronic Combat												
Anti-Air Warfare												
Anti-Surface Warfare	●	●	●	●	●	●	●	●	●	●	●	●
Mine Warfare												
Amphibious Warfare												
Anti-Submarine	●	●	●	●	●	●	●	●	●	●	●	●
Naval Special Warfare												

Legend: Minimal ● Moderate ● Severe ●

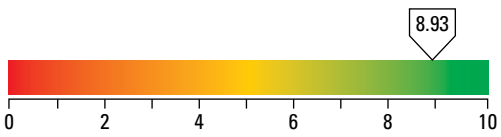
Summary Percent Distribution



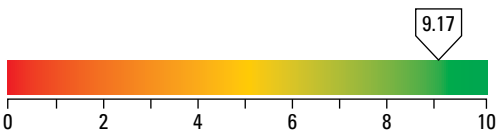
Summary Percent Distribution



Overall Capability Score



Overall Encroachment Score



Summary Observations

- Threats
- Range Support
- Limited to ASUW and ASW with Decreasing Operations

Summary Observations

- Spectrum
- Maritime Sustainability

Figure 3-9 Navy Capability and Encroachment Assessment Detail (continued)

Navy Range: China Lake

Capability Data

Mission Areas	Landspace	Airspace	Seaspace	Underseaspace	Targets	Threats	Scoring & Feedback System	Infrastructure	Range Support	Small Arms Ranges	Collective Ranges	MOUT Facilities	Suite of Ranges
Strike Warfare	●	●			●	●	●	●	●		●	●	●
Electronic Combat	●	●			●	●	●	●	●		●	●	●
Anti-Air Warfare	●	●			●	●	●	●	●		●		●
Anti-Surface Warfare											●		●
Mine Warfare													
Amphibious Warfare													
Anti-Submarine													
Naval Special Warfare	●	●			●	●	●	●	●		●	●	●

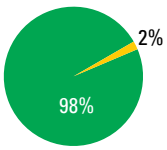
Legend: FMC ● PMC ● NMC ●

Encroachment Data

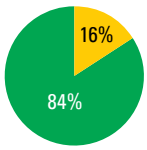
Mission Areas	Threatened and Endangered Species	Munitions Restrictions	Spectrum	Maritime Sustainability	Airspace	Air Quality	Noise Restrictions	Adjacent Land Use	Cultural Resources	Water Quality/Supply	Wetlands	Range Transients
Strike Warfare	●	●	●		●	●	●	●	●	●	●	●
Electronic Combat	●	●	●		●	●	●	●	●	●	●	●
Anti-Air Warfare	●	●	●		●	●	●	●	●	●	●	●
Anti-Surface Warfare												
Mine Warfare												
Amphibious Warfare												
Anti-Submarine												
Naval Special Warfare	●	●	●		●	●	●	●	●	●	●	●

Legend: Minimal ● Moderate ● Severe ●

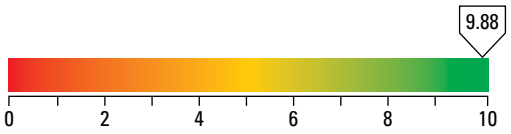
Summary Percent Distribution



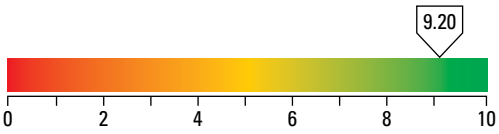
Summary Percent Distribution



Overall Capability Score



Overall Encroachment Score



Summary Observations

- Infrastructure

Summary Observations

- Spectrum
- Airspace

Figure 3-9 Navy Capability and Encroachment Assessment Detail (continued)

Navy Range: El Centro

Capability Data

Mission Areas	Landspace	Airspace	Seaspace	Underseaspace	Targets	Threats	Scoring & Feedback System	Infrastructure	Range Support	Small Arms Ranges	Collective Ranges	MOUT Facilities	Suite of Ranges
Strike Warfare	PMC	PMC			PMC	PMC	PMC		PMC				
Electronic Combat	FMC	FMC			FMC	PMC	PMC		PMC				
Anti-Air Warfare	FMC	PMC			FMC	PMC	PMC		PMC				
Anti-Surface Warfare													
Mine Warfare													
Amphibious Warfare													
Anti-Submarine													
Naval Special Warfare													

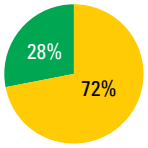
Legend: FMC, PMC, NMC

Encroachment Data

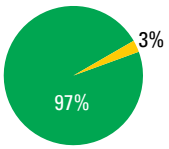
Mission Areas	Threatened and Endangered Species	Munitions Restrictions	Spectrum	Maritime Sustainability	Airspace	Air Quality	Noise Restrictions	Adjacent Land Use	Cultural Resources	Water Quality/Supply	Wetlands	Range Transients
Strike Warfare	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Moderate	Minimal	Minimal	Minimal	Minimal
Electronic Combat	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal
Anti-Air Warfare	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal
Anti-Surface Warfare												
Mine Warfare												
Amphibious Warfare												
Anti-Submarine												
Naval Special Warfare												

Legend: Minimal, Moderate, Severe

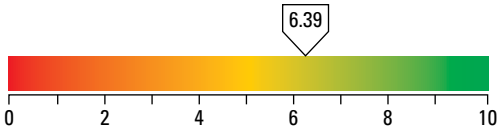
Summary Percent Distribution



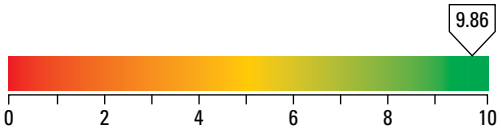
Summary Percent Distribution



Overall Capability Score



Overall Encroachment Score



Summary Observations

- Threats, Scoring and Feedback, and Support
- Landspace

Summary Observations

- Adjacent Land Use

Figure 3-9 Navy Capability and Encroachment Assessment Detail (continued)

Navy Range: Fallon

Capability Data

Mission Areas	Landspace	Airspace	Seaspace	Underseaspace	Targets	Threats	Scoring & Feedback System	Infrastructure	Range Support	Small Arms Ranges	Collective Ranges	MOUT Facilities	Suite of Ranges
Strike Warfare	●	●			●	●	●		●				
Electronic Combat	●	●			●	●	●		●				
Anti-Air Warfare	●	●				●	●		●				
Anti-Surface Warfare													
Mine Warfare													
Amphibious Warfare													
Anti-Submarine													
Naval Special Warfare	●	●			●	●	●		●				

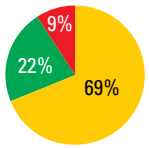
Legend: FMC ● PMC ● NMC ●

Encroachment Data

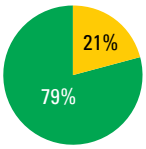
Mission Areas	Threatened and Endangered Species	Munitions Restrictions	Spectrum	Maritime Sustainability	Airspace	Air Quality	Noise Restrictions	Adjacent Land Use	Cultural Resources	Water Quality/Supply	Wetlands	Range Transients
Strike Warfare	●	●	●	●	●	●	●	●	●	●	●	●
Electronic Combat	●	●	●	●	●	●	●	●	●	●	●	●
Anti-Air Warfare	●	●	●	●	●	●	●	●	●	●	●	●
Anti-Surface Warfare												
Mine Warfare												
Amphibious Warfare												
Anti-Submarine												
Naval Special Warfare	●	●	●	●	●	●	●	●	●	●	●	●

Legend: Minimal ● Moderate ● Severe ●

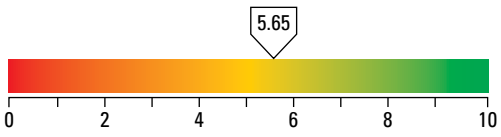
Summary Percent Distribution



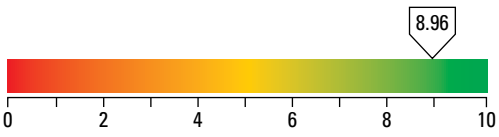
Summary Percent Distribution



Overall Capability Score



Overall Encroachment Score



Summary Observations

- Landspace
- Threats
- Range Support
- EC and NSW Most Affected

Summary Observations

- Spectrum
- Airspace
- Noise Restrictions and Range
- Transients

Figure 3-9 Navy Capability and Encroachment Assessment Detail (continued)

Navy Range: Gomex

Capability Data

Mission Areas	Landspace	Airspace	Seaspace	Underseaspace	Targets	Threats	Scoring & Feedback System	Infrastructure	Range Support	Small Arms Ranges	Collective Ranges	MOUT Facilities	Suite of Ranges
Strike Warfare													
Electronic Combat													
Anti-Air Warfare	●	●	●		●	●	●		●				
Anti-Surface Warfare		●	●	●	●	●	●		●				
Mine Warfare		●	●	●	●	●	●		●				
Amphibious Warfare													
Anti-Submarine													
Naval Special Warfare	●	●	●	●	●	●	●		●				

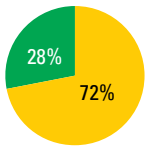
Legend: FMC ● PMC ● NMC ●

Encroachment Data

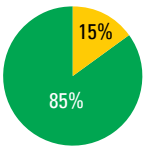
Mission Areas	Threatened and Endangered Species	Munitions Restrictions	Spectrum	Maritime Sustainability	Airspace	Air Quality	Noise Restrictions	Adjacent Land Use	Cultural Resources	Water Quality/Supply	Wetlands	Range Transients
Strike Warfare												
Electronic Combat												
Anti-Air Warfare	●	●	●	●	●	●	●	●	●	●	●	●
Anti-Surface Warfare	●	●	●	●	●	●	●	●	●	●	●	●
Mine Warfare	●	●	●	●	●	●	●	●	●	●	●	●
Amphibious Warfare												
Anti-Submarine												
Naval Special Warfare	●	●	●	●	●	●	●	●	●	●	●	●

Legend: Minimal ● Moderate ● Severe ●

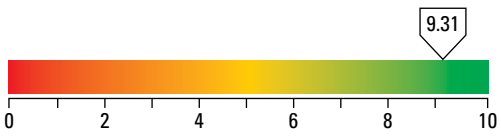
Summary Percent Distribution



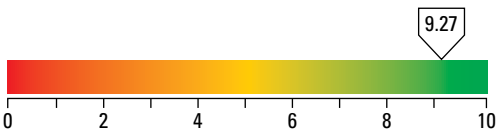
Summary Percent Distribution



Overall Capability Score



Overall Encroachment Score



Summary Observations

- Range Support

Summary Observations

- Spectrum
- Maritime Sustainability
- Range Transients

Figure 3-9 Navy Capability and Encroachment Assessment Detail (continued)

Navy Range: Guantanamo

Capability Data

Mission Areas	Landspace	Airspace	Seaspace	Underseaspace	Targets	Threats	Scoring & Feedback System	Infrastructure	Range Support	Small Arms Ranges	Collective Ranges	MOUT Facilities	Suite of Ranges
Strike Warfare	●	●	●	●	●	●	●		●				
Electronic Combat													
Anti-Air Warfare	●	●	●		●	●	●		●				
Anti-Surface Warfare		●	●	●	●	●	●		●				
Mine Warfare													
Amphibious Warfare													
Anti-Submarine		●	●	●	●	●	●		●				
Naval Special Warfare	●	●	●	●	●	●	●		●				

Legend: FMC ● PMC ● NMC ●

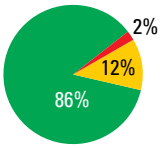
Encroachment Data

Mission Areas	Threatened and Endangered Species	Munitions Restrictions	Spectrum	Maritime Sustainability	Airspace	Air Quality	Noise Restrictions	Adjacent Land Use	Cultural Resources	Water Quality/Supply	Wetlands	Range Transients
Strike Warfare	●	●	●	●	●	●	●	●	●	●	●	●
Electronic Combat												
Anti-Air Warfare	●	●	●	●	●	●	●	●	●	●	●	●
Anti-Surface Warfare	●	●	●	●	●	●	●	●	●	●	●	●
Mine Warfare												
Amphibious Warfare												
Anti-Submarine	●	●	●	●	●	●	●	●	●	●	●	●
Naval Special Warfare	●	●	●	●	●	●	●	●	●	●	●	●

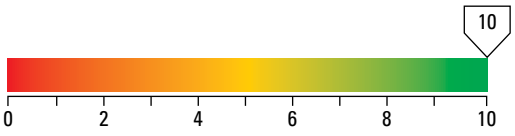
Legend: Minimal ● Moderate ● Severe ●

Summary Percent Distribution

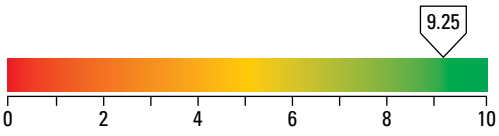
Summary Percent Distribution



Overall Capability Score



Overall Encroachment Score



Summary Observations

- Fully Mission Capable

Summary Observations

- Munitions Restrictions
- Range Transients
- Maritime Sustainability

Figure 3-9 Navy Capability and Encroachment Assessment Detail (continued)

Navy Range: Hawaii

Capability Data

Mission Areas	Landspace	Airspace	Seaspace	Underseaspace	Targets	Threats	Scoring & Feedback System	Infrastructure	Range Support	Small Arms Ranges	Collective Ranges	MOUT Facilities	Suite of Ranges
Strike Warfare	PMC	PMC	FMC	FMC	PMC	PMC	NMC		PMC				
Electronic Combat	FMC	FMC	FMC	FMC	FMC	PMC	FMC		PMC				
Anti-Air Warfare	PMC	FMC	FMC		FMC	PMC	PMC		PMC				
Anti-Surface Warfare		FMC	FMC	FMC	PMC	NMC	FMC		PMC				
Mine Warfare		FMC	FMC	FMC	NMC	FMC	NMC		PMC				
Amphibious Warfare	FMC	FMC	FMC	FMC			FMC		PMC				
Anti-Submarine		FMC	FMC	FMC	PMC	FMC	FMC		PMC				
Naval Special Warfare	PMC	FMC	FMC	FMC	PMC	FMC	FMC		PMC				

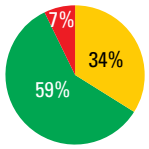
Legend: FMC PMC NMC

Encroachment Data

Mission Areas	Threatened and Endangered Species	Munitions Restrictions	Spectrum	Maritime Sustainability	Airspace	Air Quality	Noise Restrictions	Adjacent Land Use	Cultural Resources	Water Quality/Supply	Wetlands	Range Transients
Strike Warfare	NMC	FMC	PMC	FMC	PMC	FMC	FMC	PMC	PMC	FMC	FMC	FMC
Electronic Combat	FMC	FMC	PMC	FMC	FMC	FMC	FMC	FMC	FMC	FMC	FMC	FMC
Anti-Air Warfare	FMC	FMC	PMC	FMC	PMC	FMC	FMC	FMC	FMC	FMC	FMC	FMC
Anti-Surface Warfare	FMC	FMC	PMC	PMC	FMC	FMC	FMC	FMC	FMC	FMC	FMC	PMC
Mine Warfare	FMC	FMC	PMC	PMC	FMC	FMC	FMC	FMC	FMC	FMC	FMC	PMC
Amphibious Warfare	FMC	FMC	PMC	PMC	FMC	FMC	FMC	FMC	FMC	FMC	FMC	PMC
Anti-Submarine	FMC	FMC	FMC	NMC	FMC	FMC	FMC	FMC	FMC	FMC	FMC	FMC
Naval Special Warfare	FMC	FMC	FMC	FMC	FMC	FMC	FMC	FMC	FMC	FMC	FMC	FMC

Legend: Minimal Moderate Severe

Summary Percent Distribution



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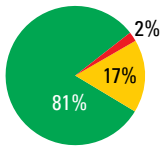
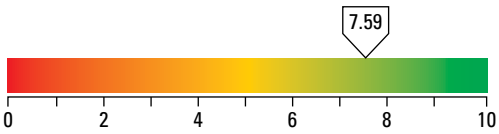
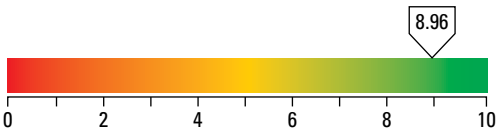


Overall Capability Score



Overall Encroachment Score



Summary Observations

- Scoring and Feedback Systems
- Threats
- Targets

Summary Observations

- Maritime Sustainability
- TES/Critical Habitat
- Spectrum
- Range Transients

Figure 3-9 Navy Capability and Encroachment Assessment Detail (continued)

Navy Range: Jacksonville

Capability Data

Mission Areas	Landspace	Airspace	Seaspace	Underseaspace	Targets	Threats	Scoring & Feedback System	Infrastructure	Range Support	Small Arms Ranges	Collective Ranges	MOUT Facilities	Suite of Ranges
Strike Warfare	NMC	FMC	FMC	FMC	NMC	FMC	NMC		NMC				
Electronic Combat	FMC	FMC	FMC	FMC	FMC	NMC	NMC		NMC				
Anti-Air Warfare	NMC	FMC	FMC		FMC	NMC	NMC		NMC				
Anti-Surface Warfare		FMC	FMC	FMC	FMC	FMC	NMC		NMC				
Mine Warfare		FMC	FMC	FMC	NMC	FMC	NMC		NMC				
Amphibious Warfare													
Anti-Submarine		FMC	FMC	FMC	FMC	NMC	Severe		NMC				
Naval Special Warfare													

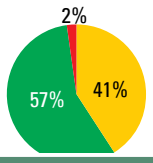
Legend: FMC, PMC, NMC

Encroachment Data

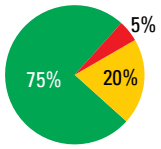
Mission Areas	Threatened and Endangered Species	Munitions Restrictions	Spectrum	Maritime Sustainability	Airspace	Air Quality	Noise Restrictions	Adjacent Land Use	Cultural Resources	Water Quality/Supply	Wetlands	Range Transients
Strike Warfare	Moderate	Minimal	Moderate	Minimal	Moderate	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal
Electronic Combat	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal
Anti-Air Warfare	Minimal	Minimal	Moderate	Minimal	Moderate	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal
Anti-Surface Warfare	Minimal	Minimal	Moderate	Severe	Moderate	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Moderate
Mine Warfare	Minimal	Minimal	Moderate	Severe	Moderate	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Moderate
Amphibious Warfare	Minimal	Minimal	Moderate	Severe	Moderate	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Moderate
Anti-Submarine	Minimal	Minimal	Moderate	Severe	Moderate	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Moderate
Naval Special Warfare												

Legend: Minimal, Moderate, Severe

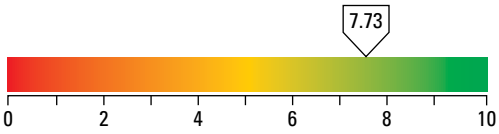
Summary Percent Distribution



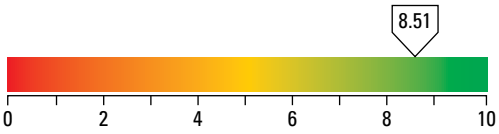
Summary Percent Distribution



Overall Capability Score



Overall Encroachment Score



Summary Observations

- Scoring and Feedback System
- Range Support
- Threats

Summary Observations

- Sonar
- Range Transients
- Airspace

Figure 3-9 Navy Capability and Encroachment Assessment Detail (continued)

Navy Range: Japan

Capability Data

Mission Areas	Landspace	Airspace	Seaspace	Underseaspace	Targets	Threats	Scoring & Feedback System	Infrastructure	Range Support	Small Arms Ranges	Collective Ranges	MOUT Facilities	Suite of Ranges
Strike Warfare	NMC	PMC	FMC	FMC	NMC	NMC	NMC		PMC				
Electronic Combat	NMC	FMC	FMC	FMC	NMC	NMC	NMC		PMC				
Anti-Air Warfare	PMC	PMC	FMC		PMC	PMC	NMC		PMC				
Anti-Surface Warfare		FMC	FMC	FMC	PMC	PMC	PMC		PMC				
Mine Warfare		FMC	PMC	PMC	PMC	PMC	PMC		PMC				
Amphibious Warfare													
Anti-Submarine		FMC	FMC	FMC	PMC	PMC	PMC		PMC				
Naval Special Warfare													

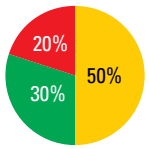
Legend: FMC, PMC, NMC

Encroachment Data

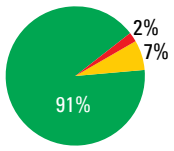
Mission Areas	Threatened and Endangered Species	Munitions Restrictions	Spectrum	Maritime Sustainability	Airspace	Air Quality	Noise Restrictions	Adjacent Land Use	Cultural Resources	Water Quality/Supply	Wetlands	Range Transients
Strike Warfare	Minimal	Minimal	Moderate	Minimal	Minimal	Minimal	Moderate	Minimal	Minimal	Minimal	Minimal	Minimal
Electronic Combat	Minimal	Minimal	Severe	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal
Anti-Air Warfare	Minimal	Minimal	Severe	Minimal	Minimal	Minimal	Moderate	Minimal	Minimal	Minimal	Minimal	Minimal
Anti-Surface Warfare	Minimal	Minimal	Moderate	Moderate	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal
Mine Warfare	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal
Amphibious Warfare	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal
Anti-Submarine	Minimal	Minimal	Minimal	Moderate	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal
Naval Special Warfare												

Legend: Minimal, Moderate, Severe

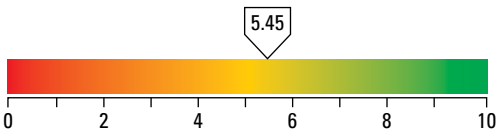
Summary Percent Distribution



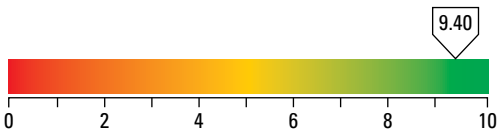
Summary Percent Distribution



Overall Capability Score



Overall Encroachment Score



Summary Observations

- Scoring and Feedback Systems
- Threat and Targets
- Landspace

Summary Observations

- Spectrum
- Maritime Sustainability
- Noise Restrictions

Figure 3-9 Navy Capability and Encroachment Assessment Detail (continued)

Navy Range: Key West

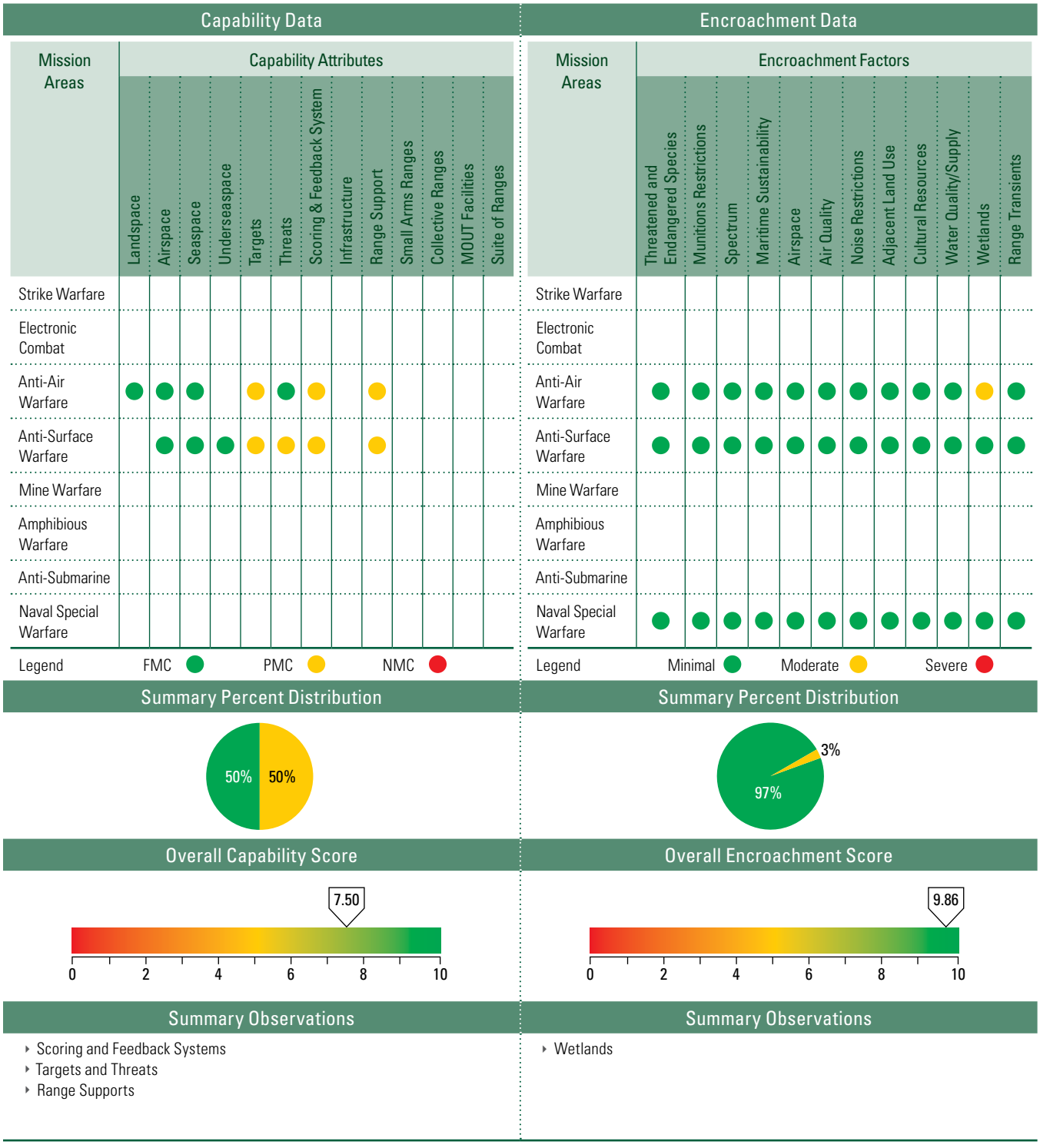


Figure 3-9 Navy Capability and Encroachment Assessment Detail (continued)

Navy Range: Mariana Islands

Capability Data

Mission Areas	Landspace	Airspace	Seaspace	Underseaspace	Targets	Threats	Scoring & Feedback System	Infrastructure	Range Support	Small Arms Ranges	Collective Ranges	MOUT Facilities	Suite of Ranges
Strike Warfare	FMC	FMC	FMC	FMC	FMC	FMC	FMC		PMC				
Electronic Combat	FMC	FMC	FMC	FMC	FMC	FMC	FMC		PMC				
Anti-Air Warfare	FMC	PMC	FMC		FMC	FMC	FMC		PMC				
Anti-Surface Warfare		FMC	FMC	FMC	FMC	FMC	FMC		PMC				
Mine Warfare		FMC	PMC	FMC	FMC	FMC	FMC		PMC				
Amphibious Warfare	FMC	FMC	FMC		FMC	FMC	FMC		PMC				
Anti-Submarine		FMC	FMC	FMC	FMC	FMC	FMC		PMC				
Naval Special Warfare	FMC	PMC	FMC	FMC	FMC	FMC	FMC		PMC				

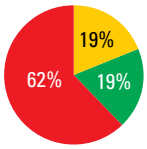
Legend: FMC, PMC, NMC

Encroachment Data

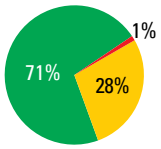
Mission Areas	Threatened and Endangered Species	Munitions Restrictions	Spectrum	Maritime Sustainability	Airspace	Air Quality	Noise Restrictions	Adjacent Land Use	Cultural Resources	Water Quality/Supply	Wetlands	Range Transients
Strike Warfare	Minimal	Moderate	Moderate	Minimal	Moderate	Minimal	Moderate	Moderate	Minimal	Minimal	Minimal	Moderate
Electronic Combat	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal
Anti-Air Warfare	Minimal	Minimal	Moderate	Minimal	Moderate	Minimal	Moderate	Moderate	Minimal	Minimal	Minimal	Minimal
Anti-Surface Warfare	Minimal	Minimal	Moderate	Moderate	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal
Mine Warfare	Minimal	Minimal	Moderate	Moderate	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Moderate
Amphibious Warfare	Severe	Minimal	Moderate	Moderate	Minimal	Minimal	Minimal	Minimal	Moderate	Minimal	Moderate	Moderate
Anti-Submarine	Minimal	Minimal	Moderate	Moderate	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal
Naval Special Warfare	Moderate	Moderate	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Moderate	Minimal	Moderate	Moderate

Legend: Minimal, Moderate, Severe

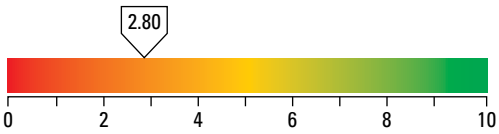
Summary Percent Distribution



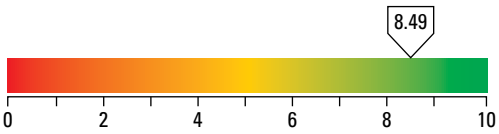
Summary Percent Distribution



Overall Capability Score



Overall Encroachment Score



Summary Observations

- Developing Training Capability

Summary Observations

- TES/Critical Habitat
- Spectrum
- Maritime Sustainability

Figure 3-9 Navy Capability and Encroachment Assessment Detail (continued)

Navy Range: Narragansett Bay

Capability Data

Mission Areas	Landspace	Airspace	Seaspace	Underseaspace	Targets	Threats	Scoring & Feedback System	Infrastructure	Range Support	Small Arms Ranges	Collective Ranges	MOUT Facilities	Suite of Ranges
Strike Warfare													
Electronic Combat													
Anti-Air Warfare													
Anti-Surface Warfare													
Mine Warfare													
Amphibious Warfare													
Anti-Submarine		FMC	FMC	FMC	FMC	PMC	NMC		PMC				
Naval Special Warfare													

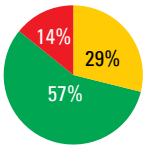
Legend: FMC, PMC, NMC

Encroachment Data

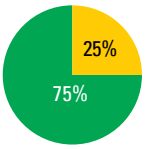
Mission Areas	Threatened and Endangered Species	Munitions Restrictions	Spectrum	Maritime Sustainability	Airspace	Air Quality	Noise Restrictions	Adjacent Land Use	Cultural Resources	Water Quality/Supply	Wetlands	Range Transients
Strike Warfare												
Electronic Combat												
Anti-Air Warfare												
Anti-Surface Warfare												
Mine Warfare												
Amphibious Warfare												
Anti-Submarine	Moderate	Minimal	Moderate	Moderate	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal
Naval Special Warfare												

Legend: Minimal, Moderate, Severe

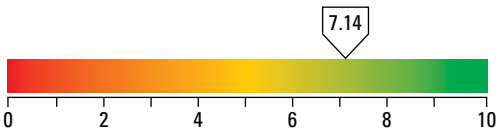
Summary Percent Distribution



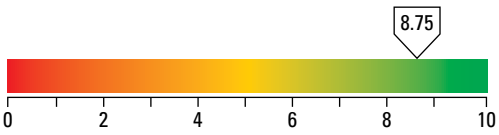
Summary Percent Distribution



Overall Capability Score



Overall Encroachment Score



Summary Observations

- Scoring and Feedback Systems
- Threats and Targets
- ASW only Mission Area Supported
- Available T&E Infrastructure Limit or Restrict ASW Training

Summary Observations

- TSE/Critical Habitat
- Spectrum
- Maritime Sustainability

Figure 3-9 Navy Capability and Encroachment Assessment Detail (continued)

Navy Range: Navy Cherry Point

Capability Data

Mission Areas	Landspace	Airspace	Seaspace	Underseaspace	Targets	Threats	Scoring & Feedback System	Infrastructure	Range Support	Small Arms Ranges	Collective Ranges	MOUT Facilities	Suite of Ranges
Strike Warfare	PMC	NMC	FMC	FMC	PMC	PMC	PMC		PMC				
Electronic Combat	FMC	FMC	FMC	FMC	PMC	PMC	FMC		PMC				
Anti-Air Warfare	PMC	FMC	FMC		FMC	PMC	PMC		PMC				
Anti-Surface Warfare		FMC	FMC	FMC	FMC	FMC	PMC		PMC				
Mine Warfare		FMC	FMC	FMC	PMC	FMC	NMC		PMC				
Amphibious Warfare	FMC	FMC	FMC	FMC	PMC	PMC	FMC		PMC				
Anti-Submarine		FMC	FMC	FMC	FMC	PMC	NMC		PMC				
Naval Special Warfare													

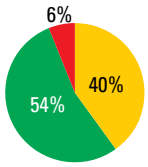
Legend: FMC, PMC, NMC

Encroachment Data

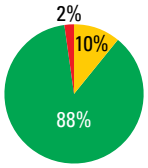
Mission Areas	Threatened and Endangered Species	Munitions Restrictions	Spectrum	Maritime Sustainability	Airspace	Air Quality	Noise Restrictions	Adjacent Land Use	Cultural Resources	Water Quality/Supply	Wetlands	Range Transients
Strike Warfare	FMC	FMC	PMC	FMC	PMC	FMC	FMC	FMC	FMC	FMC	FMC	FMC
Electronic Combat	FMC	FMC	FMC	FMC	FMC	FMC	FMC	FMC	FMC	FMC	FMC	FMC
Anti-Air Warfare	FMC	FMC	PMC	FMC	FMC	FMC	FMC	FMC	FMC	FMC	FMC	FMC
Anti-Surface Warfare	FMC	FMC	PMC	NMC	FMC	FMC	FMC	FMC	FMC	FMC	FMC	PMC
Mine Warfare	FMC	FMC	FMC	FMC	FMC	FMC	FMC	FMC	FMC	FMC	FMC	FMC
Amphibious Warfare	FMC	FMC	PMC	NMC	FMC	FMC	FMC	FMC	FMC	FMC	FMC	PMC
Anti-Submarine	FMC	FMC	FMC	FMC	FMC	FMC	FMC	FMC	FMC	FMC	FMC	PMC
Naval Special Warfare												

Legend: Minimal, Moderate, Severe

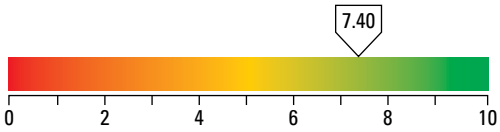
Summary Percent Distribution



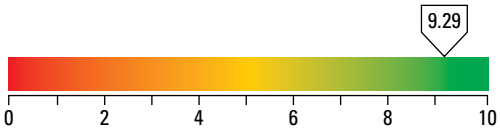
Summary Percent Distribution



Overall Capability Score



Overall Encroachment Score



Summary Observations

- Scoring and Feedback Systems
- Airspace
- Range support

Summary Observations

- Maritime Sustainability
- Spectrum
- Range Transients

Figure 3-9 Navy Capability and Encroachment Assessment Detail (continued)

Navy Range: NOCAL

Capability Data

Mission Areas	Landspace	Airspace	Seaspace	Underseaspace	Targets	Threats	Scoring & Feedback System	Infrastructure	Range Support	Small Arms Ranges	Collective Ranges	MOUT Facilities	Suite of Ranges
Strike Warfare	NMC	NMC	FMC	FMC	NMC	PMC	NMC		PMC				
Electronic Combat													
Anti-Air Warfare	FMC	PMC	FMC		FMC	PMC	PMC		PMC				
Anti-Surface Warfare		FMC	FMC	FMC	FMC	FMC	FMC		PMC				
Mine Warfare													
Amphibious Warfare													
Anti-Submarine													
Naval Special Warfare	FMC	FMC	FMC	FMC	FMC	FMC	FMC		PMC				

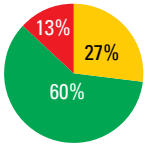
Legend: FMC PMC NMC

Encroachment Data

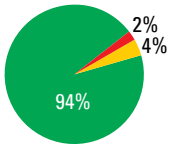
Mission Areas	Threatened and Endangered Species	Munitions Restrictions	Spectrum	Maritime Sustainability	Airspace	Air Quality	Noise Restrictions	Adjacent Land Use	Cultural Resources	Water Quality/Supply	Wetlands	Range Transients
Strike Warfare	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Severe	Minimal	Minimal	Minimal	Minimal	Moderate
Electronic Combat												
Anti-Air Warfare	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Moderate
Anti-Surface Warfare	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal
Mine Warfare												
Amphibious Warfare												
Anti-Submarine												
Naval Special Warfare	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal

Legend: Minimal Moderate Severe

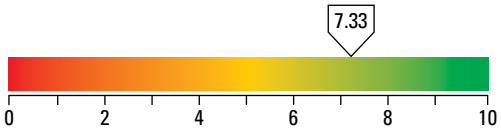
Summary Percent Distribution



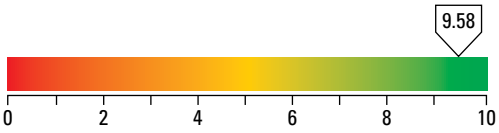
Summary Percent Distribution



Overall Capability Score



Overall Encroachment Score



Summary Observations

- Landspace, Airspace, Targets, Scoring and Feedback Systems

Summary Observations

- Noise Restrictions
- Range Transients

Figure 3-9 Navy Capability and Encroachment Assessment Detail (continued)

Navy Range: Northwest

Capability Data

Mission Areas	Landspace	Airspace	Seaspace	Underseaspace	Targets	Threats	Scoring & Feedback System	Infrastructure	Range Support	Small Arms Ranges	Collective Ranges	MOUT Facilities	Suite of Ranges
Strike Warfare	PMC	PMC	FMC	FMC	FMC	PMC	PMC		PMC				
Electronic Combat	FMC	FMC	PMC	FMC	PMC	FMC	PMC		PMC				
Anti-Air Warfare	FMC	FMC	FMC		PMC	PMC	PMC		PMC				
Anti-Surface Warfare		FMC	FMC	FMC	PMC	FMC	FMC		PMC				
Mine Warfare		FMC	FMC	FMC	FMC	FMC	FMC		PMC				
Amphibious Warfare													
Anti-Submarine		FMC	FMC	FMC	FMC	FMC	FMC		PMC				
Naval Special Warfare	PMC	FMC	FMC	PMC	PMC	FMC	FMC		PMC				

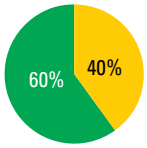
Legend: FMC PMC NMC

Encroachment Data

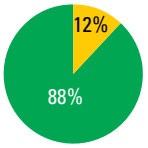
Mission Areas	Threatened and Endangered Species	Munitions Restrictions	Spectrum	Maritime Sustainability	Airspace	Air Quality	Noise Restrictions	Adjacent Land Use	Cultural Resources	Water Quality/Supply	Wetlands	Range Transients
Strike Warfare	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal
Electronic Combat	Minimal	Minimal	Moderate	Minimal	Moderate	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal
Anti-Air Warfare	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal
Anti-Surface Warfare	Minimal	Minimal	Minimal	Moderate	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal
Mine Warfare	Minimal	Minimal	Minimal	Moderate	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal
Amphibious Warfare												
Anti-Submarine	Minimal	Minimal	Minimal	Moderate	Minimal	Minimal	Minimal	Moderate	Minimal	Minimal	Minimal	Moderate
Naval Special Warfare	Minimal	Minimal	Minimal	Moderate	Minimal	Minimal	Minimal	Moderate	Minimal	Minimal	Minimal	Moderate

Legend: Minimal Moderate Severe

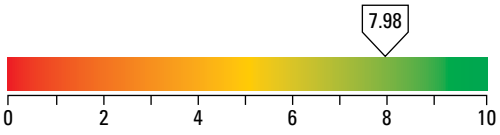
Summary Percent Distribution



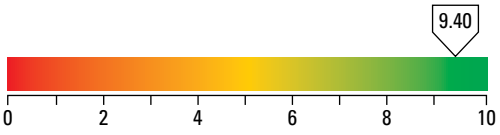
Summary Percent Distribution



Overall Capability Score



Overall Encroachment Score



Summary Observations

- Range Support
- Targets, Threats, and Scoring and Feedback Systems

Summary Observations

- Maritime Sustainability
- Adjacent Land Use
- Range Transients

Figure 3-9 Navy Capability and Encroachment Assessment Detail (continued)

Navy Range: Okinawa

Capability Data

Mission Areas	Landspace	Airspace	Seaspace	Underseaspace	Targets	Threats	Scoring & Feedback System	Infrastructure	Range Support	Small Arms Ranges	Collective Ranges	MOUT Facilities	Suite of Ranges
Strike Warfare	PMC	FMC	FMC		NMC	NMC	NMC		PMC				
Electronic Combat	NMC	FMC	FMC		NMC	NMC	NMC		PMC				
Anti-Air Warfare	PMC	PMC	FMC		PMC	NMC	NMC		PMC				
Anti-Surface Warfare		FMC	FMC	FMC	FMC	PMC	PMC		PMC				
Mine Warfare		FMC	PMC	PMC	PMC	PMC	PMC		PMC				
Amphibious Warfare	NMC	PMC	PMC	PMC	PMC	PMC	PMC		PMC				
Anti-Submarine		PMC	PMC	PMC	PMC	PMC	NMC		PMC				
Naval Special Warfare													

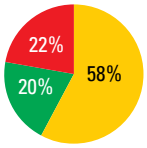
Legend: FMC, PMC, NMC

Encroachment Data

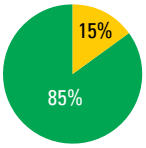
Mission Areas	Threatened and Endangered Species	Munitions Restrictions	Spectrum	Maritime Sustainability	Airspace	Air Quality	Noise Restrictions	Adjacent Land Use	Cultural Resources	Water Quality/Supply	Wetlands	Range Transients
Strike Warfare	Minimal	Minimal	Minimal	Minimal	Moderate	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal
Electronic Combat	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal
Anti-Air Warfare	Minimal	Minimal	Minimal	Minimal	Moderate	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal
Anti-Surface Warfare	Minimal	Minimal	Moderate	Moderate	Moderate	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Moderate
Mine Warfare	Minimal	Minimal	Minimal	Moderate	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Moderate
Amphibious Warfare	Moderate	Minimal	Minimal	Moderate	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Moderate
Anti-Submarine	Minimal	Minimal	Minimal	Moderate	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Moderate
Naval Special Warfare												

Legend: Minimal, Moderate, Severe

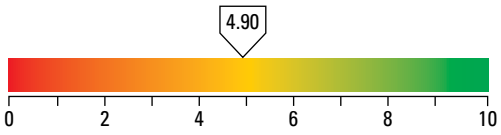
Summary Percent Distribution



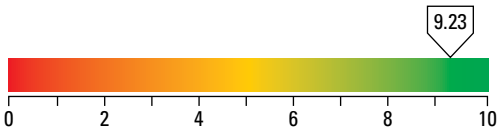
Summary Percent Distribution



Overall Capability Score



Overall Encroachment Score



Summary Observations

- Scoring and Feedback Systems
- Threats and Targets

Summary Observations

- Maritime Sustainability
- Airspace
- Range Transients

Figure 3-9 Navy Capability and Encroachment Assessment Detail (continued)

Navy Range: Point Mugu Sea

Capability Data

Mission Areas	Landspace	Airspace	Seaspace	Underseaspace	Targets	Threats	Scoring & Feedback System	Infrastructure	Range Support	Small Arms Ranges	Collective Ranges	MOUT Facilities	Suite of Ranges
Strike Warfare	PMC	FMC	FMC		FMC	FMC	FMC	FMC	FMC		FMC		FMC
Electronic Combat	FMC	FMC	FMC		FMC	FMC	FMC	FMC	FMC		FMC		FMC
Anti-Air Warfare	FMC	FMC	FMC		FMC	FMC	FMC	FMC	FMC		FMC		FMC
Anti-Surface Warfare	FMC	FMC	FMC		FMC	FMC	FMC	FMC	FMC		FMC		FMC
Mine Warfare		FMC	PMC										
Amphibious Warfare	PMC	FMC	FMC		FMC	FMC	FMC	FMC	FMC		FMC		FMC
Anti-Submarine													
Naval Special Warfare	PMC	FMC	FMC		FMC	FMC	FMC	FMC	FMC		FMC		FMC

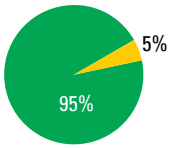
Legend: FMC PMC NMC

Encroachment Data

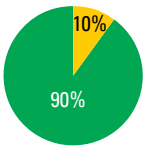
Mission Areas	Threatened and Endangered Species	Munitions Restrictions	Spectrum	Maritime Sustainability	Airspace	Air Quality	Noise Restrictions	Adjacent Land Use	Cultural Resources	Water Quality/Supply	Wetlands	Range Transients
Strike Warfare	Minimal	Minimal	Moderate	Minimal	Minimal	Minimal	Minimal	Minimal	Moderate	Minimal	Minimal	Minimal
Electronic Combat	Minimal	Minimal	Moderate	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal
Anti-Air Warfare	Minimal	Minimal	Moderate	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal
Anti-Surface Warfare	Minimal	Minimal	Moderate	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal
Mine Warfare												
Amphibious Warfare	Minimal	Minimal	Moderate	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal
Anti-Submarine												
Naval Special Warfare	Minimal	Minimal	Moderate	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal

Legend: Minimal Moderate Severe

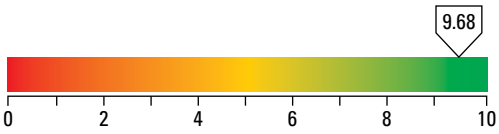
Summary Percent Distribution



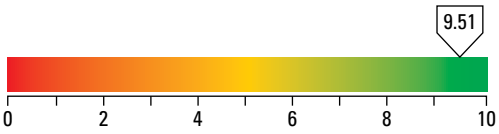
Summary Percent Distribution



Overall Capability Score



Overall Encroachment Score



Summary Observations

- Landspace
- Seaspace

Summary Observations

- Spectrum
- Cultural Resources

Figure 3-9 Navy Capability and Encroachment Assessment Detail (continued)

Navy Range: SOCAL

Capability Data

Mission Areas	Landspace	Airspace	Seaspace	Underseaspace	Targets	Threats	Scoring & Feedback System	Infrastructure	Range Support	Small Arms Ranges	Collective Ranges	MOUT Facilities	Suite of Ranges
Strike Warfare	PMC	FMC	FMC	FMC	PMC	PMC	PMC		PMC				
Electronic Combat	FMC	FMC	FMC	FMC	PMC	PMC	PMC		PMC				
Anti-Air Warfare	FMC	FMC	FMC		PMC	PMC	PMC		PMC				
Anti-Surface Warfare		FMC	FMC	FMC	FMC	PMC	PMC		PMC				
Mine Warfare		FMC	FMC	FMC	NMC	PMC	NMC		PMC				
Amphibious Warfare	NMC	FMC	FMC	FMC	NMC	PMC	PMC		PMC				
Anti-Submarine		FMC	FMC	NMC	FMC	PMC	PMC		PMC				
Naval Special Warfare	PMC	FMC	FMC	FMC	NMC	PMC	PMC		PMC				

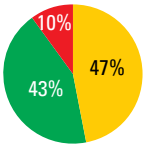
Legend: FMC PMC NMC

Encroachment Data

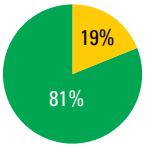
Mission Areas	Threatened and Endangered Species	Munitions Restrictions	Spectrum	Maritime Sustainability	Airspace	Air Quality	Noise Restrictions	Adjacent Land Use	Cultural Resources	Water Quality/Supply	Wetlands	Range Transients
Strike Warfare	PMC	PMC	PMC	FMC	FMC	FMC	FMC	FMC	FMC	FMC	FMC	FMC
Electronic Combat	FMC	FMC	PMC	FMC	FMC	FMC	FMC	FMC	FMC	FMC	FMC	FMC
Anti-Air Warfare	FMC	FMC	PMC	FMC	FMC	FMC	FMC	FMC	FMC	FMC	FMC	FMC
Anti-Surface Warfare	FMC	FMC	PMC	PMC	FMC	FMC	FMC	FMC	FMC	FMC	FMC	PMC
Mine Warfare	FMC	FMC	PMC	PMC	FMC	FMC	FMC	FMC	FMC	FMC	FMC	PMC
Amphibious Warfare	PMC	PMC	PMC	FMC	FMC	FMC	FMC	FMC	FMC	FMC	FMC	PMC
Anti-Submarine	FMC	FMC	FMC	PMC	FMC	FMC	FMC	FMC	FMC	FMC	FMC	FMC
Naval Special Warfare	FMC	PMC	FMC	FMC	FMC	FMC	FMC	FMC	FMC	FMC	FMC	PMC

Legend: Minimal Moderate Severe

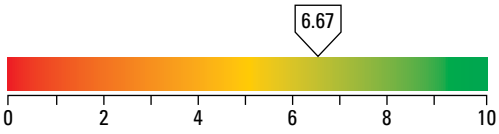
Summary Percent Distribution



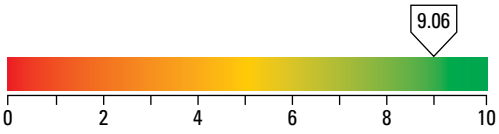
Summary Percent Distribution



Overall Capability Score



Overall Encroachment Score



Summary Observations

- Targets
- Underseaspace
- Scoring and Feedback Systems
- Range Support

Summary Observations

- Spectrum
- Maritime Sustainability
- Range Transients and Munitions Restrictions

Figure 3-9 Navy Capability and Encroachment Assessment Detail (continued)

Navy Range: VACAPES

Capability Data

Mission Areas	Landspace	Airspace	Seaspace	Underseaspace	Targets	Threats	Scoring & Feedback System	Infrastructure	Range Support	Small Arms Ranges	Collective Ranges	MOUT Facilities	Suite of Ranges
Strike Warfare	PMC	FMC	FMC	FMC	PMC	FMC	PMC		PMC				
Electronic Combat	PMC	FMC	FMC	FMC	PMC	PMC	PMC		PMC				
Anti-Air Warfare	PMC	FMC	FMC		FMC	PMC	PMC		PMC				
Anti-Surface Warfare		FMC	FMC	FMC	FMC	FMC	PMC		PMC				
Mine Warfare		FMC	FMC	FMC	PMC	FMC	NMC		PMC				
Amphibious Warfare													
Anti-Submarine		FMC	FMC	FMC	FMC	PMC	NMC		PMC				
Naval Special Warfare													

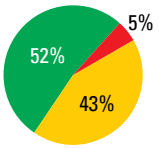
Legend: FMC, PMC, NMC

Encroachment Data

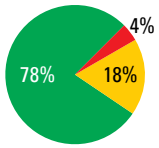
Mission Areas	Threatened and Endangered Species	Munitions Restrictions	Spectrum	Maritime Sustainability	Airspace	Air Quality	Noise Restrictions	Adjacent Land Use	Cultural Resources	Water Quality/Supply	Wetlands	Range Transients
Strike Warfare	PMC	FMC	PMC	FMC	PMC	FMC	FMC	FMC	FMC	FMC	PMC	PMC
Electronic Combat	FMC	FMC	FMC	FMC	FMC	FMC	FMC	FMC	FMC	FMC	FMC	FMC
Anti-Air Warfare	FMC	FMC	PMC	FMC	FMC	FMC	FMC	FMC	FMC	FMC	FMC	FMC
Anti-Surface Warfare	FMC	FMC	PMC	NMC	FMC	FMC	FMC	FMC	FMC	FMC	FMC	PMC
Mine Warfare	FMC	FMC	PMC	NMC	FMC	FMC	FMC	FMC	FMC	FMC	FMC	PMC
Amphibious Warfare												
Anti-Submarine	FMC	FMC	PMC	NMC	FMC	FMC	FMC	FMC	FMC	FMC	FMC	PMC
Naval Special Warfare	PMC											

Legend: Minimal, Moderate, Severe

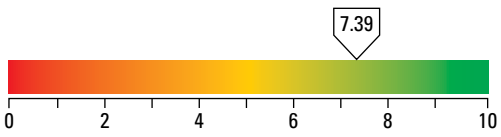
Summary Percent Distribution



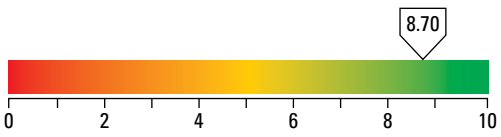
Summary Percent Distribution



Overall Capability Score



Overall Encroachment Score



Summary Observations

- Scoring and Feedback Systems
- Range Support
- Threats and Targets

Summary Observations

- Maritime Sustainability
- Spectrum
- Range Transients

Navy Training Range Summary Capability and Encroachment Assessment Results

The results of the Navy's overall range capability and encroachment assessments, based on data received from 22 Ranges/Range Complexes, are presented side-by-side in Table 3-6. Specific consideration of the relationship between encroachment and capability is an emerging concept that will be further developed in future reports.

Table 3-6 Navy Range Capability and Encroachment Assessment Comparison

Range Name	Capability Score	Encroachment Score
Atlantic City	8.93	8.75
Atlantic Test Range	7.17	8.33
AUTEC	9.86	9.25
Boston	8.93	9.17
China Lake	9.88	9.20
El Centro	6.39	9.86
Fallon	5.65	8.96

Table 3-6 Navy Range Capability and Encroachment Assessment Comparison (continued)

Range Name	Capability Score	Encroachment Score
Gomex	9.31	9.27
Guantanamo	10	9.25
Hawaii	7.59	8.96
Jacksonville	7.73	8.51
Japan	5.45	9.40
Key West	7.50	9.86
Mariana Island	2.80	8.49
Narragansett Bay	7.14	8.75
Navy Cherry Point	7.40	9.29

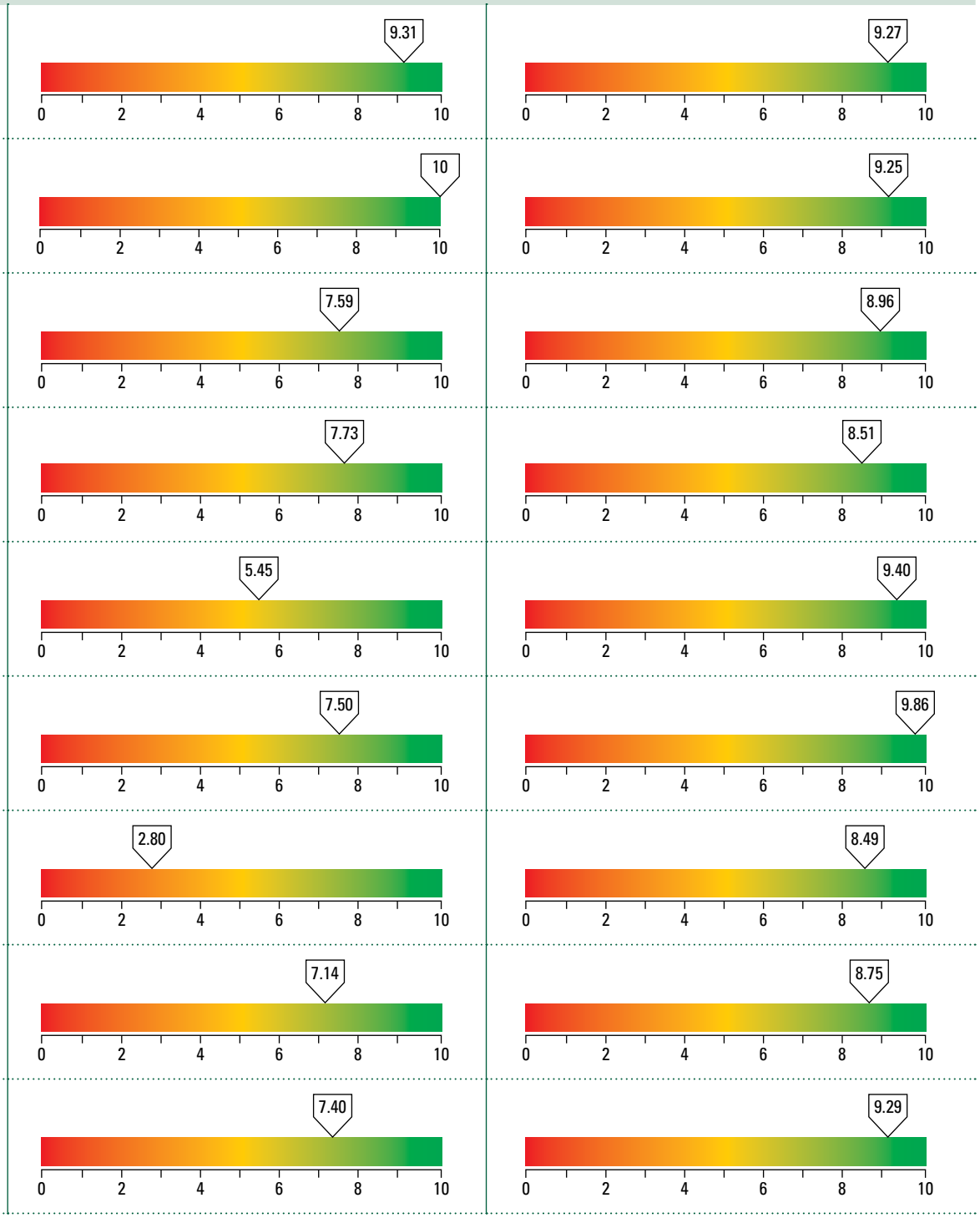


Table 3-6 Navy Range Capability and Encroachment Assessment Comparison (continued)

Range Name	Capability Score	Encroachment Score
NOCAL	7.33	9.58
Northwest	7.98	9.40
Okinawa	4.90	9.23
Pt Mugu Sea Range	9.68	9.51
SOCAL	6.67	9.06
VACAPES	7.39	8.70

3.2.3 Marine Corps

Marine Corps Training Range Capability Assessment Results

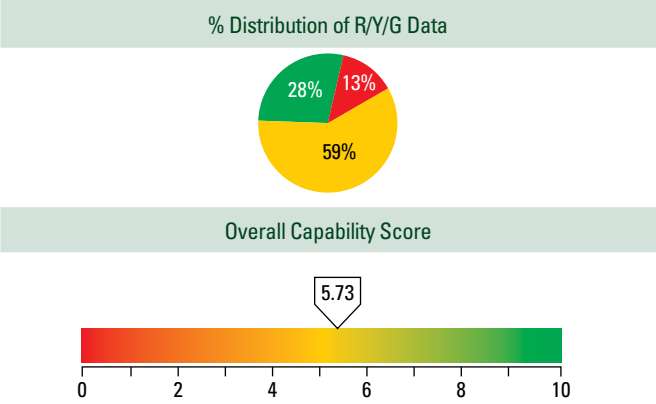
The results of the Marine Corps' overall range capability assessment are:

- USMC's overall Capability Score = 5.73
- 13% of the USMC's Range Mission Areas are assessed as NMC
- 59% of the USMC's Range Mission Areas are assessed as PMC
- 28% of the USMC's Range Mission Areas are assessed as FMC

The most persistent shortfall in Marine Corps range capability is a lack of landspace and airspace to meet training requirements. Shortfalls were identified in the Landspace, Scoring and Feedback Systems, Threats, and Targets capability attributes, resulting in all four Marine Corps mission areas being impacted. Impacted ranges, or ranges with a capability score less than the overall Marine Corps score of 5.73, include: Hawaii, Camp Lejuene, MCAGCC29 Palms, Camp Pendleton, and Yuma. Examples of specific comments from the Marine Corps assessment process are:

- Unit- and MEU-level training are most severely impacted by land area and instrumentation capability shortfalls. (Hawaii)
- Landspace and lack of threats have the greatest impact. (Camp Lejuene)
- Landspace is the most limiting capability to conduct large-scale MAGTF and Joint exercises training. (MCAGCC29 Palms)
- Lack of contiguous land for training causes segmentation of training and reduced realism. Automated ranges are not available to support individual, unit, and MEU training. (Camp Pendleton)
- Unit- and MEU-level training is most affected by all applicable capability shortfalls. (Yuma)

Figure 3-10 Summary: Marine Corps Range Capability Assessment



Marine Corps Training Range Encroachment Assessment Results

The results of the USMC's overall range encroachment assessment are:

- USMC's overall Encroachment Score = 7.90
- 8% of the USMC's Range Mission Areas are severely impacted (High risk)
- 26% of the USMC's Range Mission Areas are moderately impacted (Medium risk)
- 66% of the USMC's Range Mission Areas are minimally impacted (Minimal risk).

Encroachment factors contributing constraints are identified as: Threatened and Endangered Species, Wetlands, Noise Restrictions, and Munitions Restrictions. All four Marine Corps mission areas are impacted. Ranges with an encroachment score less than the Marine Corps overall score of 7.90 include: Cherry Point, Hawaii, Camp Lejuene, Camp Pendleton, and Yuma. Examples of specific comments from the Marine Corps assessment process are:

- Munitions restrictions, airspace, noise restrictions, adjacent land use and range transients are the encroachment factors moderately impacting most of the training missions. (Cherry Point)
- Adjacent land use is the factor severely affecting individual- and unit-level training. (Hawaii)
- Threatened and endangered species, munitions restrictions, airspace, noise restrictions, adjacent land use and range transients are the encroachment factors moderately impacting most of the training missions. (Camp Lejuene)

- Threatened and endangered species/critical habitat, cultural resources, and wetlands affect all available coastlines for landing beaches. (Camp Pendleton)
- Threatened and endangered species and munitions restrictions affect individual- and unit- level training. The joint use of the field with civilians creates severe encroachment on communication and radar frequencies. (Yuma)

Detailed Marine Corps Training Range Capability and Encroachment Assessment Results

The following tables and figures present detailed information on the Marine Corps's Training Range Capability and Encroachment Assessments. The first set of tables detail the methodology used for determining the weighted averages that make-up an individual range capability and encroachment score. This information is shown for all the Marine Corps ranges assessed. The set of figures that follow provide assessment detail at the range level specific to mission areas and capability attributes and encroachment factors.

Figure 3-11 Summary: Marine Corps Range Encroachment Assessment

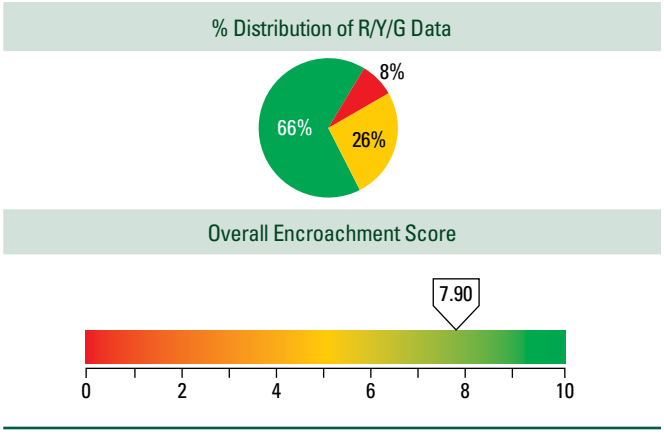
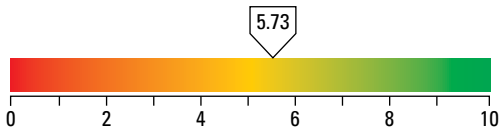


Table 3-7 Marine Corps Range Capability Assessment Data Analysis

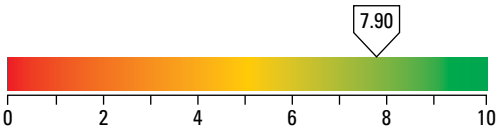
Marine Corps Range Capability Assessment Detail



Range	NMC	PMC	FMC	Total Weighted Scores	Total Assessment Points	Weighted Average
29 Palms	6	9	9	135	24	5.63
Beaufort Townsend	0	6	12	150	18	8.33
Bridgeport	0	0	0	0	0	N/A
Camp Lejeune	3	14	4	110	21	5.24
Cherry Point	0	9	6	105	15	7.00
Hawaii	5	11	3	85	19	4.47
Pendleton	5	13	3	95	21	4.52
Quantico	0	5	2	45	7	6.43
Yuma	0	17	1	95	18	5.28
Totals	**19**	**84**	**40**	**820**	**143**	**5.73**

Table 3-8 Marine Corps Range Encroachment Assessment Data Analysis

Marine Corps Range Encroachment Assessment Detail



Range	Severe	Moderate	Minimal	Total Weighted Scores	Total Assessment Points	Weighted Average
29 Palms	0	8	32	360	40	9.00
Beaufort Townsend	0	0	22	220	22	10.00
Bridgeport	4	0	16	160	20	8.00
Camp Lejeune	0	16	17	250	33	7.58
Cherry Point	0	10	12	170	22	7.73
Hawaii	2	8	12	160	22	7.27
Pendleton	8	4	18	200	30	6.67
Quantico	0	4	18	200	22	9.09
Yuma	5	9	6	105	20	5.25
Totals	**19**	**59**	**153**	**1,825**	**231**	**7.90**

Figure 3-12 Marine Corps Capability and Encroachment Assessment Detail

Marine Corps Range: 29 Palms

Capability Data

Mission Areas	Landspace	Airspace	Seaspace	Underseaspace	Targets	Threats	Scoring & Feedback System	Infrastructure	Range Support	Small Arms Ranges	Collective Ranges	MOUT Facilities	Suite of Ranges
Individual Level Training	FMC	FMC			FMC	FMC	FMC		FMC				
Unit Level Training	FMC	FMC			PMC	PMC	PMC		FMC				
MEU Level Training	PMC	PMC			NMC	PMC	NMC		PMC				
MEB Level Training	NMC	NMC			NMC	PMC	NMC		PMC				

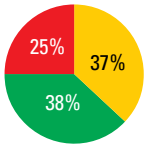
Legend: FMC, PMC, NMC

Encroachment Data

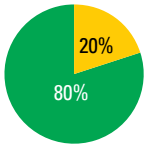
Mission Areas	Threatened and Endangered Species	Munitions Restrictions	Spectrum	Maritime Sustainability	Airspace	Air Quality	Noise Restrictions	Adjacent Land Use	Cultural Resources	Water Quality/Supply	Wetlands	Range Transients
Individual Level Training	Minimal	Minimal	Moderate		Moderate	Minimal	Minimal	Minimal	Minimal	Minimal		Minimal
Unit Level Training	Minimal	Minimal	Moderate		Moderate	Minimal	Minimal	Minimal	Minimal	Minimal		Minimal
MEU Level Training	Minimal	Minimal	Moderate		Moderate	Minimal	Minimal	Minimal	Minimal	Minimal		Minimal
MEB Level Training	Minimal	Minimal	Moderate		Moderate	Minimal	Minimal	Minimal	Minimal	Minimal		Minimal

Legend: Minimal, Moderate, Severe

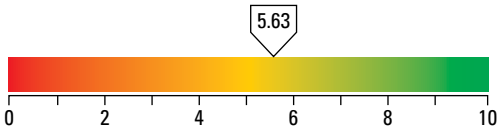
Summary Percent Distribution



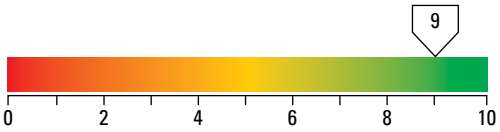
Summary Percent Distribution



Overall Capability Score



Overall Encroachment Score



Summary Observations

- Landspace, Airspace
- Targets and Scoring and Feedback Systems

Summary Observations

- Airspace
- Spectrum

Figure 3-12 Marine Corps Capability and Encroachment Assessment Detail (Continued)

Marine Corps Range: Beaufort Townsend

Capability Data

Mission Areas	Landspace	Airspace	Seaspace	Underseaspace	Targets	Threats	Scoring & Feedback System	Infrastructure	Range Support	Small Arms Ranges	Collective Ranges	MOUT Facilities	Suite of Ranges
Individual Level Training	PMC	FMC			PMC	FMC	FMC		FMC				
Unit Level Training	PMC	FMC			PMC	FMC	FMC		FMC				
MEU Level Training	PMC	FMC			PMC	FMC	FMC		FMC				
MEB Level Training													

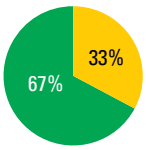
Legend: FMC (green) PMC (yellow) NMC (red)

Encroachment Data

Mission Areas	Threatened and Endangered Species	Munitions Restrictions	Spectrum	Maritime Sustainability	Airspace	Air Quality	Noise Restrictions	Adjacent Land Use	Cultural Resources	Water Quality/Supply	Wetlands	Range Transients
Individual Level Training	FMC	FMC	FMC		FMC	FMC	FMC	FMC	FMC	FMC	FMC	FMC
Unit Level Training	FMC	FMC	FMC		FMC	FMC	FMC	FMC	FMC	FMC	FMC	FMC
MEU Level Training												
MEB Level Training												

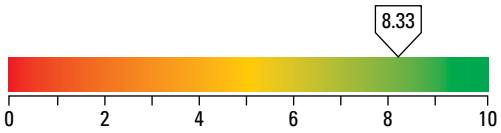
Legend: Minimal (green) Moderate (yellow) Severe (red)

Summary Percent Distribution

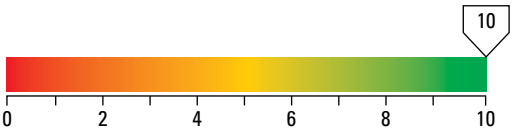


Summary Percent Distribution

Overall Capability Score



Overall Encroachment Score



Summary Observations

- Landspace
- Targets

Summary Observations

- No Encroachment Impacts on Training

Figure 3-12 Marine Corps Capability and Encroachment Assessment Detail (Continued)

Marine Corps Range: Bridgeport

Capability Data

Mission Areas	Landspace	Airspace	Seaspace	Underseaspace	Targets	Threats	Scoring & Feedback System	Infrastructure	Range Support	Small Arms Ranges	Collective Ranges	MOUT Facilities	Suite of Ranges
Individual Level Training													
Unit Level Training			Not Assessed										
MEU Level Training													
MEB Level Training													

Legend: FMC, PMC, NMC

Summary Percent Distribution

Not Assessed

Overall Capability Score

Not Assessed

Summary Observations

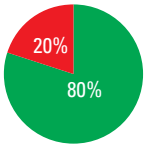
- Not Assessed

Encroachment Data

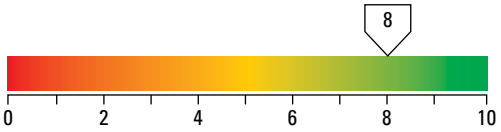
Mission Areas	Threatened and Endangered Species	Munitions Restrictions	Spectrum	Maritime Sustainability	Airspace	Air Quality	Noise Restrictions	Adjacent Land Use	Cultural Resources	Water Quality/Supply	Wetlands	Range Transients
Individual Level Training	●	●	●		●	●	●	●	●	●	●	
Unit Level Training	●	●	●		●	●	●	●	●	●	●	
MEU Level Training												
MEB Level Training												

Legend: Minimal, Moderate, Severe

Summary Percent Distribution



Overall Encroachment Score



Summary Observations

- Noise Restrictions
- Wetlands

Figure 3-12 Marine Corps Capability and Encroachment Assessment Detail (Continued)

Marine Corps Range: Camp Lejeune

Capability Data

Mission Areas	Landspace	Airspace	Seaspace	Underseaspace	Targets	Threats	Scoring & Feedback System	Infrastructure	Range Support	Small Arms Ranges	Collective Ranges	MOUT Facilities	Suite of Ranges
Individual Level Training	FMC	FMC	FMC		PMC	PMC	PMC		PMC				
Unit Level Training	PMC	PMC	FMC		PMC	NMC	PMC		PMC				
MEU Level Training	NMC	PMC	FMC		PMC	NMC	PMC		PMC				
MEB Level Training													

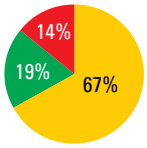
Legend: FMC, PMC, NMC

Encroachment Data

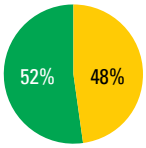
Mission Areas	Threatened and Endangered Species	Munitions Restrictions	Spectrum	Maritime Sustainability	Airspace	Air Quality	Noise Restrictions	Adjacent Land Use	Cultural Resources	Water Quality/Supply	Wetlands	Range Transients
Individual Level Training	PMC	PMC	FMC		PMC	FMC	PMC	PMC	FMC	FMC	FMC	FMC
Unit Level Training	PMC	PMC	FMC		PMC	FMC	PMC	PMC	FMC	FMC	FMC	FMC
MEU Level Training	PMC	PMC	FMC		PMC	FMC	PMC	PMC	FMC	FMC	FMC	PMC
MEB Level Training												

Legend: Minimal, Moderate, Severe

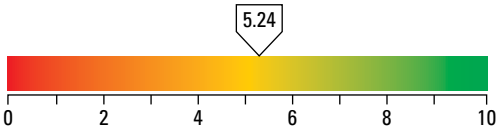
Summary Percent Distribution



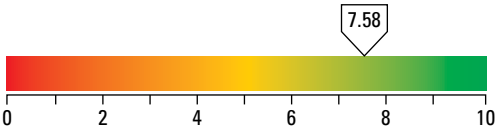
Summary Percent Distribution



Overall Capability Score



Overall Encroachment Score



Summary Observations

- Threats
- Landspace

Summary Observations

- TSE/Critical Habitat
- Munitions Restrictions
- Airspace
- Noise Restrictions
- Adjacent Land Use

Figure 3-12 Marine Corps Capability and Encroachment Assessment Detail (Continued)

Marine Corps Range: Cherry Point

Capability Data

Mission Areas	Landspace	Airspace	Seaspace	Underseaspace	Targets	Threats	Scoring & Feedback System	Infrastructure	Range Support	Small Arms Ranges	Collective Ranges	MOUT Facilities	Suite of Ranges
Individual Level Training		PMC			PMC	FMC	PMC		FMC				
Unit Level Training		PMC			PMC	FMC	PMC		FMC				
MEU Level Training		PMC			PMC	FMC	PMC		FMC				
MEB Level Training													

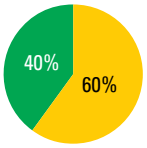
Legend: FMC, PMC, NMC

Encroachment Data

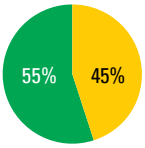
Mission Areas	Threatened and Endangered Species	Munitions Restrictions	Spectrum	Maritime Sustainability	Airspace	Air Quality	Noise Restrictions	Adjacent Land Use	Cultural Resources	Water Quality/Supply	Wetlands	Range Transients
Individual Level Training	FMC	PMC	FMC		PMC	FMC	PMC	PMC	FMC	FMC	FMC	PMC
Unit Level Training	FMC	PMC	FMC		PMC	FMC	PMC	PMC	FMC	FMC	FMC	PMC
MEU Level Training												
MEB Level Training												

Legend: Minimal, Moderate, Severe

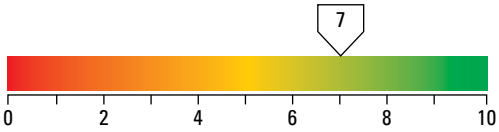
Summary Percent Distribution



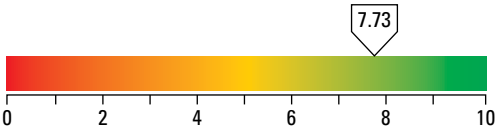
Summary Percent Distribution



Overall Capability Score



Overall Encroachment Score



Summary Observations

- Targets
- Scoring and Feedback Systems
- Airspace

Summary Observations

- Munitions restrictions
- Airspace
- Noise restrictions
- Adjacent Land Use
- Range Transients

Figure 3-12 Marine Corps Capability and Encroachment Assessment Detail (Continued)

Marine Corps Range: Hawaii

Capability Data

Mission Areas	Landspace	Airspace	Seaspace	Underseaspace	Targets	Threats	Scoring & Feedback System	Infrastructure	Range Support	Small Arms Ranges	Collective Ranges	MOUT Facilities	Suite of Ranges
Individual Level Training	PMC		FMC		PMC	PMC	NMC		PMC				
Unit Level Training	NMC	PMC	FMC		PMC	PMC	NMC		PMC				
MEU Level Training	NMC		FMC		PMC	PMC	NMC		PMC				
MEB Level Training													

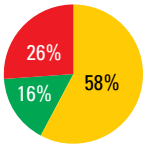
Legend: FMC, PMC, NMC

Encroachment Data

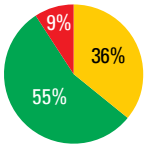
Mission Areas	Threatened and Endangered Species	Munitions Restrictions	Spectrum	Maritime Sustainability	Airspace	Air Quality	Noise Restrictions	Adjacent Land Use	Cultural Resources	Water Quality/Supply	Wetlands	Range Transients
Individual Level Training	Minimal	Moderate	Minimal		Minimal	Minimal	Moderate	Severe	Moderate	Minimal	Minimal	Moderate
Unit Level Training	Minimal	Moderate	Minimal		Minimal	Minimal	Moderate	Severe	Moderate	Minimal	Minimal	Moderate
MEU Level Training												
MEB Level Training												

Legend: Minimal, Moderate, Severe

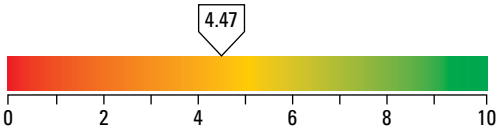
Summary Percent Distribution



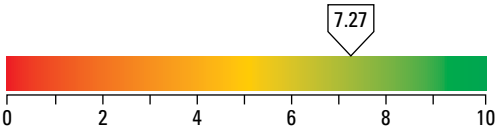
Summary Percent Distribution



Overall Capability Score



Overall Encroachment Score



Summary Observations

- Scoring and Feedback Systems
- Targets, Threats, and Range Support

Summary Observations

- Adjacent Land Use is Severely Impacting Mission
- Noise Restrictions, Cultural Resources, Range Transients, and Munitions Issues

Figure 3-12 Marine Corps Capability and Encroachment Assessment Detail (Continued)

Marine Corps Range: Pendleton

Capability Data

Mission Areas	Capability Attributes												
	Landspace	Airspace	Seaspace	Underseaspace	Targets	Threats	Scoring & Feedback System	Infrastructure	Range Support	Small Arms Ranges	Collective Ranges	MOUT Facilities	Suite of Ranges
Individual Level Training	FMC	PMC	FMC		PMC	PMC	NMC		PMC				
Unit Level Training	PMC	PMC	FMC		PMC	PMC	NMC		PMC				
MEU Level Training	NMC	PMC	PMC		PMC	NMC	NMC		PMC				
MEB Level Training													

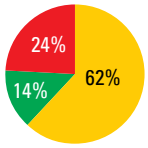
Legend: FMC, PMC, NMC

Encroachment Data

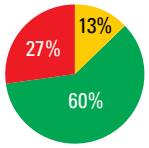
Mission Areas	Encroachment Factors											
	Threatened and Endangered Species	Munitions Restrictions	Spectrum	Maritime Sustainability	Airspace	Air Quality	Noise Restrictions	Adjacent Land Use	Cultural Resources	Water Quality/Supply	Wetlands	Range Transients
Individual Level Training	Moderate	Minimal	Minimal		Minimal	Minimal	Minimal	Moderate	Severe	Minimal	Severe	
Unit Level Training	Severe	Minimal	Minimal		Minimal	Minimal	Minimal	Moderate	Severe	Minimal	Severe	
MEU Level Training	Severe	Minimal	Minimal		Minimal	Minimal	Minimal	Moderate	Severe	Minimal	Severe	
MEB Level Training												

Legend: Minimal, Moderate, Severe

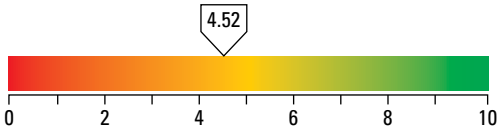
Summary Percent Distribution



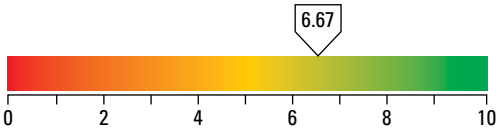
Summary Percent Distribution



Overall Capability Score



Overall Encroachment Score



Summary Observations

- Landspace and Threats
- Scoring and Feedback Systems

Summary Observations

- TSE/Critical Habitat
- Cultural Resources and Wetlands

Figure 3-12 Marine Corps Capability and Encroachment Assessment Detail (Continued)

Marine Corps Range: Quantico

Capability Data

Mission Areas	Capability Attributes												
	Landspace	Airspace	Seaspace	Underseaspace	Targets	Threats	Scoring & Feedback System	Infrastructure	Range Support	Small Arms Ranges	Collective Ranges	MOUT Facilities	Suite of Ranges
Individual Level Training	●	●	●		●	●	●		●				
Unit Level Training													
MEU Level Training													
MEB Level Training													

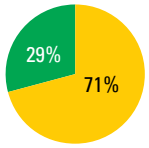
Legend: FMC ● PMC ● NMC ●

Encroachment Data

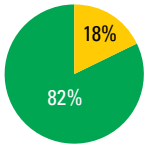
Mission Areas	Encroachment Factors											
	Threatened and Endangered Species	Munitions Restrictions	Spectrum	Maritime Sustainability	Airspace	Air Quality	Noise Restrictions	Adjacent Land Use	Cultural Resources	Water Quality/Supply	Wetlands	Range Transients
Individual Level Training	●	●	●		●	●	●	●	●	●	●	●
Unit Level Training	●	●	●		●	●	●	●	●	●	●	●
MEU Level Training												
MEB Level Training												

Legend: Minimal ● Moderate ● Severe ●

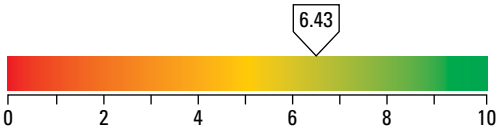
Summary Percent Distribution



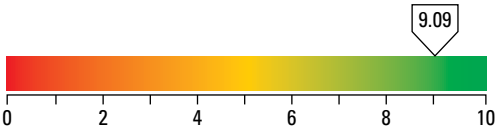
Summary Percent Distribution



Overall Capability Score



Overall Encroachment Score



Summary Observations

- Targets
- Range Support, Scoring and Feedback, Threats, Seaspace
- Currently Going Through RCMP Analysis

Summary Observations

- Munitions
- Noise Restrictions

Figure 3-12 Marine Corps Capability and Encroachment Assessment Detail (Continued)

Marine Corps Range: Yuma

Capability Data

Mission Areas	Landspace	Airspace	Seaspace	Underseaspace	Targets	Threats	Scoring & Feedback System	Infrastructure	Range Support	Small Arms Ranges	Collective Ranges	MOUT Facilities	Suite of Ranges
Individual Level Training	FMC	FMC			PMC	PMC	PMC		PMC				
Unit Level Training	PMC	PMC			PMC	PMC	PMC		PMC				
MEU Level Training	PMC	PMC			PMC	PMC	PMC		PMC				
MEB Level Training													

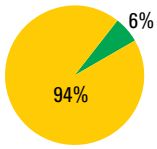
Legend: FMC, PMC, NMC

Encroachment Data

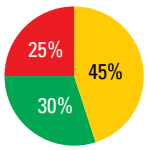
Mission Areas	Threatened and Endangered Species	Munitions Restrictions	Spectrum	Maritime Sustainability	Airspace	Air Quality	Noise Restrictions	Adjacent Land Use	Cultural Resources	Water Quality/Supply	Wetlands	Range Transients
Individual Level Training	Moderate	Severe	Severe		Moderate	Minimal	Moderate	Moderate	Minimal	Minimal		Moderate
Unit Level Training	Severe	Severe	Severe		Moderate	Minimal	Moderate	Moderate	Minimal	Minimal		Moderate
MEU Level Training												
MEB Level Training												

Legend: Minimal, Moderate, Severe

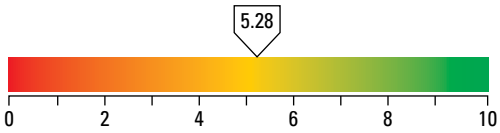
Summary Percent Distribution



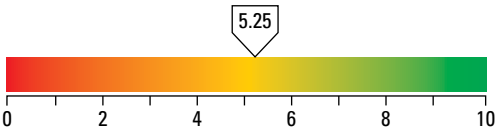
Summary Percent Distribution



Overall Capability Score



Overall Encroachment Score



Summary Observations

- 94% of All Mission Areas Assessed as Partially Mission Capable

Summary Observations

- Munitions Restrictions and Spectrum Severely Affect Individual and Unit-Level
- TSE/Critical Habitat Affect Unit Level
- Moderately Affected by Most Encroachment Factors

Marine Corps Training Range Summary Capability and Encroachment Assessment Results

The results of the Marine Corps' overall range capability and encroachment assessments, based on data received from 10 ranges/range complexes are presented side-by-side in Table 3-9. Specific consideration of the relationship between encroachment and capability is an emerging concept that will be further developed in future reports.

Table 3-9 Marine Corps Capability and Encroachment Assessment Comparison

Range Name	Capability Score	Encroachment Score
29 Palms	5.63	9
Beaufort-Townsend	8.33	10
Bridgeport	Not Assessed	8
Camp Lejuene	5.24	7.58
Cherry Point	7	7.73
Hawaii	4.47	7.27

Table 3-9 Marine Corps Capability and Encroachment Assessment Comparison (continued)

Range Name	Capability Score	Encroachment Score
Pendleton	4.52	6.67
Quantico	6.43	9.09
Yuma	5.28	5.25

3.2.4 Air Force

Air Force Training Range Capability Assessment Results

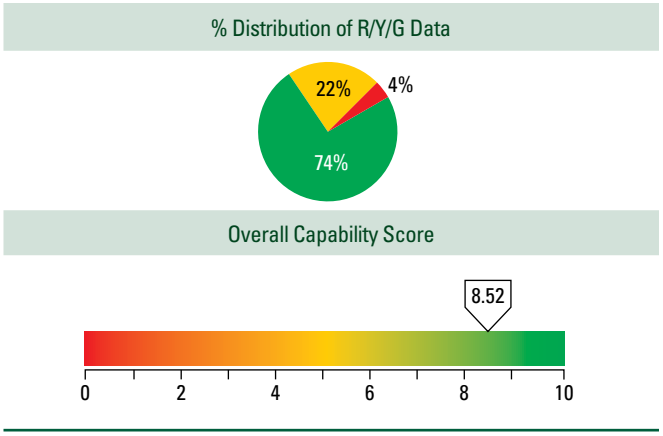
The results of the Air Force's overall range capability assessment are:

- Air Force overall Capability Score = 8.52
- 4% of the Air Force's Range Mission Areas are assessed as NMC
- 22% of the Air Force's Range Mission Areas are assessed as PMC
- 74% of the Air Force's Range Mission Areas are assessed as FMC

Shortfalls were identified in the Threats, Small Arms Range, MOUT Facilities, Suite of Ranges, Targets, Infrastructure, and Range Support capability attributes. All 13 Air Force mission areas are impacted. Impacted ranges with a score lower than the Air Force's overall score of 8.52 include: Tori Shima, Siegenburg, Polygone, Cannon, Claiborne, Falcon, Edwards (Test Range), Pilsung, Blair Lakes, Oklahoma, Adirondack, Shelby, Holloman, NTTR, Airburst, McMullen, and Eglin Range. Examples of specific comments from the Air Force assessment process are:

- RWR LITEs are the only source of ECM, limited airspace for high altitude attack (Claiborne)
- Lack of road access limits the ability to position/operate equipment (Blair)
- Lack of road access limits the ability to position/operate equipment, small restricted range/impact areas for large-force exercises (Oklahoma)
- Electronic warfare range with limited assets, land is limited and is public; no weapons allowed, limited air-space over public place, restricted horizontal and vertical airspace (Polygone)

Figure 3-13 Summary: Air Force Range Capability Assessment



Air Force Training Range Encroachment Impact Assessment Results

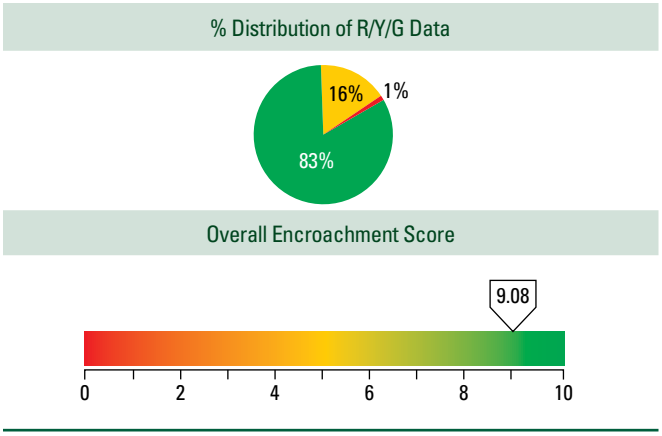
The results of the Air Force's overall range encroachment assessment are:

- Air Force's overall Encroachment Score = 9.08
- 1% of the Air Force's Range Mission Areas are severely impacted (High risk)
- 16% of the Air Force's Range Mission Areas are moderately impacted (Medium risk)
- 83% of the Air Force's Range Mission Areas are minimally impacted (Minimal risk)

Encroachment factors contributing constraints were identified as: Air Quality, Wetlands, Adjacent Land Use, T&E Species and Critical Habitat. All 13 Air Force mission areas are impacted. Impacted ranges with a score less than the overall Air Force score of 9.08 include: Polygone, Siegenburg, and Tori Shima. Examples of specific concerns from the Air Force assessment process include:

- Forest cannot be cut to improve range
- Munitions expenditures limited to rockets and bomb dumy unit-33s
- Practice bombs
- Limited electronic warfare (EW) threats,
- Air space vertical and horizontal restrictions
- Noise restrictions
- No supersonic and no-low altitude

Figure 3-14 Summary: Air Force Range Encroachment Assessment

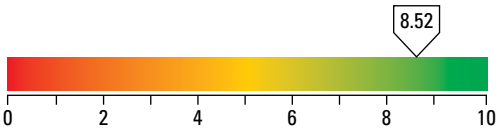


Detailed Air Force Training Range Capability and Encroachment Assessment Results

The following tables and figures present detailed information on the Air Force's Training Range Capability and Encroachment Assessments. The first set of tables detail the methodology used for determining the weighted averages that make-up an individual range capability and encroachment score. This information is shown for all the Air Force ranges assessed. The set of figures that follow provide assessment detail at the range level specific to mission areas and capability attributes and encroachment factors.

Table 3-10 Air Force Range Capability Assessment Data Analysis

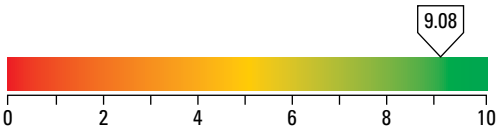
Air Force Range Capability Assessment Detail



Range	NMC	PMC	FMC	Total Weighted Scores	Total Assessment Points	Weighted Average
Adirondack	6	21	41	575	74	7.77
Airburst	2	17	42	505	61	8.28
Atterbury	1	7	36	395	44	8.98
Avon Park	0	7	85	885	92	9.62
Blair Lakes	0	58	50	790	108	7.31
BMG East	1	11	41	465	53	8.77
Bollen	0	17	60	685	77	8.90
Cannon	9	38	11	300	58	5.17
Claiborne	4	3	9	105	16	6.56
Dare County	0	1	107	1,075	108	9.95
Edwards–Test	6	13	84	905	103	8.79
Edwards–Training	9	38	47	660	94	7.02
Eglin Ranges	0	35	82	995	117	8.50
Falcon	3	4	9	110	16	6.88
Grand Bay	0	8	88	920	96	9.58
Grayling	0	11	79	845	90	9.39
Hardwood	0	15	75	825	90	9.17
Holloman	4	1	18	185	23	8.04
Jefferson	0	21	63	735	84	8.75
McMullen	1	23	55	665	79	8.42
Melrose	4	3	51	525	58	9.05
Mountain Home	0	0	73	730	73	10.00
NTTR	8	15	64	715	87	8.22
Oklahoma	0	58	50	790	108	7.31
Pilsung	4	11	18	235	33	7.12
Poinsett	0	0	58	580	58	10.00
Polygone	8	47	1	245	56	4.38
Razorback	1	0	82	820	83	9.88
Shelby Gulfport	4	25	55	675	84	8.04
Siegenburg	8	21	2	125	31	4.03
Smokey Hill	1	0	65	650	66	9.85
Tori Shima	14	4	2	40	20	2.00
Townsend	0	3	96	975	99	9.85
UTTR	0	2	86	870	88	9.89
Yukon	0	18	90	990	108	9.17
Totals	**98**	**556**	**1,881**	**21,590**	**2,535**	**8.52**

Table 3-11 Air Force Range Encroachment Assessment Data Analysis

Air Force Range Encroachment Assessment Detail



Range	Severe	Moderate	Minimal	Total Weighted Scores	Total Assessment Points	Weighted Average
Adirondack	0	10	38	430	48	8.96
Airburst	0	13	44	505	57	8.86
Atterbury	0	11	20	255	31	8.23
Avon Park	0	11	70	755	81	9.32
Blair Lakes	0	24	108	1,200	132	9.09
BMG East	0	8	38	420	46	9.13
Bollen	0	10	78	830	88	9.43
Cannon	0	16	68	760	84	9.05
Claiborne	0	0	22	220	22	10.00
Dare County	0	1	107	1,075	108	9.95
Edwards	0	16	35	430	51	8.43
Eglin Ranges	0	45	107	1,295	152	8.52
Falcon	0	1	21	215	22	9.77
Grand Bay	0	11	97	1,025	108	9.49
Grayling	1	8	90	940	99	9.49
Hardwood	0	20	79	890	99	8.99
Holloman	2	2	15	160	19	8.42
Jefferson	2	22	73	840	97	8.66
McMullen	0	23	83	945	106	8.92
Melrose	5	2	81	820	88	9.32
Mountain Home	0	2	86	870	88	9.89
NTTR	1	27	77	905	105	8.62
Oklahoma	0	24	108	1,200	132	9.09
Pilsung	0	7	46	495	53	9.34
Poinsett	0	0	40	400	40	10.00
Polygone	13	27	16	295	56	5.27
Razorback	0	4	88	900	92	9.78
Shelby Gulfport	0	24	85	970	109	8.90
Siegenburg	4	18	7	160	29	5.52
Smokey Hill	0	0	88	880	88	10.00
Tori Shima	1	5	8	105	14	7.50
Townsend	0	5	83	855	88	9.72
UTTR	0	3	85	865	88	9.83
Yukon	0	29	103	1,175	132	8.90
Totals	**29**	**419**	**2,194**	**24,085**	**2,652**	**9.08**

Figure 3-15 Air Force Capability and Encroachment Assessment Detail

Air Force Range: Adirondack

Capability Data

Mission Areas	Landspace	Airspace	Seaspace	Underseaspace	Targets	Threats	Scoring & Feedback System	Infrastructure	Range Support	Small Arms Ranges	Collective Ranges	MOUT Facilities	Suite of Ranges
Strategic Attack	FMC	FMC			PMC	NMC	FMC	FMC	PMC		FMC	FMC	FMC
Counterair	FMC	FMC			PMC	NMC	PMC		PMC				
Counterspace													
Counterland	PMC	FMC			PMC	NMC	FMC	FMC	PMC	FMC	FMC	PMC	
Countersea													
Information Operations	FMC	FMC				PMC			PMC				
Electronic Combat Support	FMC	FMC			FMC	NMC	PMC	FMC	NMC		NMC		
Command and Control	FMC	FMC			FMC	FMC	FMC	FMC	PMC		FMC	PMC	
Air Drop	FMC	FMC				PMC	FMC	PMC	PMC				
Air Refueling		FMC											
Spacelift													
Special Operations	FMC	FMC			FMC	FMC	FMC	FMC	PMC	FMC	FMC	PMC	FMC
Intelligence, Surveillance, and Reconnaissance	FMC	FMC			FMC	FMC	FMC	FMC	PMC		FMC	PMC	

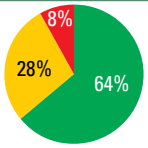
Legend: FMC, PMC, NMC

Encroachment Data

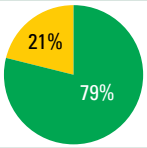
Mission Areas	Threatened and Endangered Species	Munitions Restrictions	Spectrum	Maritime	Sustainability	Airspace	Air Quality	Noise Restrictions	Adjacent Land Use	Cultural Resources	Water Quality/Supply	Wetlands	Range Transients
Strategic Attack	Minimal	Moderate	Minimal			Minimal		Minimal		Minimal		Minimal	
Counterair	Minimal	Moderate	Minimal			Minimal		Minimal	Minimal	Minimal		Minimal	
Counterspace													
Counterland	Minimal	Moderate				Minimal		Moderate		Minimal	Minimal	Moderate	
Countersea													
Information Operations			Minimal			Minimal							
Electronic Combat Support			Moderate			Minimal							
Command and Control			Minimal			Minimal							
Air Drop	Minimal	Moderate				Minimal		Minimal				Minimal	
Air Refueling						Severe							
Spacelift													
Special Operations	Minimal	Moderate	Minimal			Minimal		Minimal	Minimal		Minimal	Moderate	
Intelligence, Surveillance, and Reconnaissance		Moderate	Minimal			Minimal		Minimal	Minimal			Minimal	

Legend: Minimal, Moderate, Severe

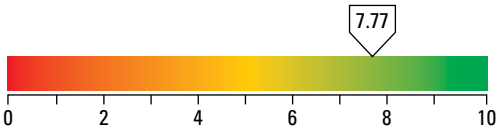
Summary Percent Distribution



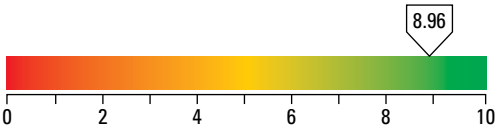
Summary Percent Distribution



Overall Capability Score



Overall Encroachment Score



Summary Observations

- Threats, Range Support, Collective Ranges, MOUT Facilities
- Electronic Combat Support, Counterland

Summary Observations

- Munitions Restrictions
- Counterland

Figure 3-15 Air Force Capability and Encroachment Assessment Detail (continued)

Air Force Range: Airburst

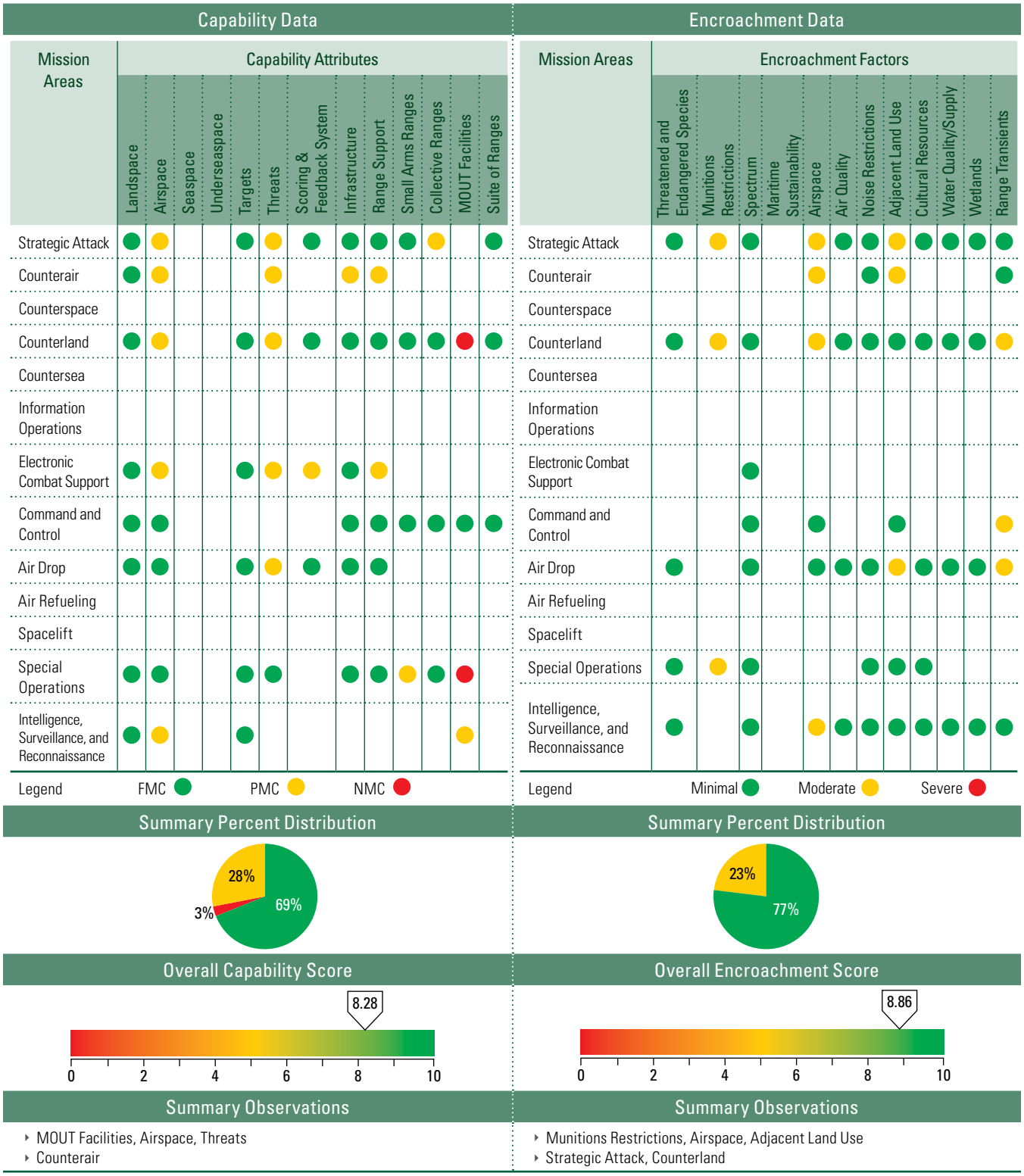


Figure 3-15 Air Force Capability and Encroachment Assessment Detail (continued)

Air Force Range: Atterbury

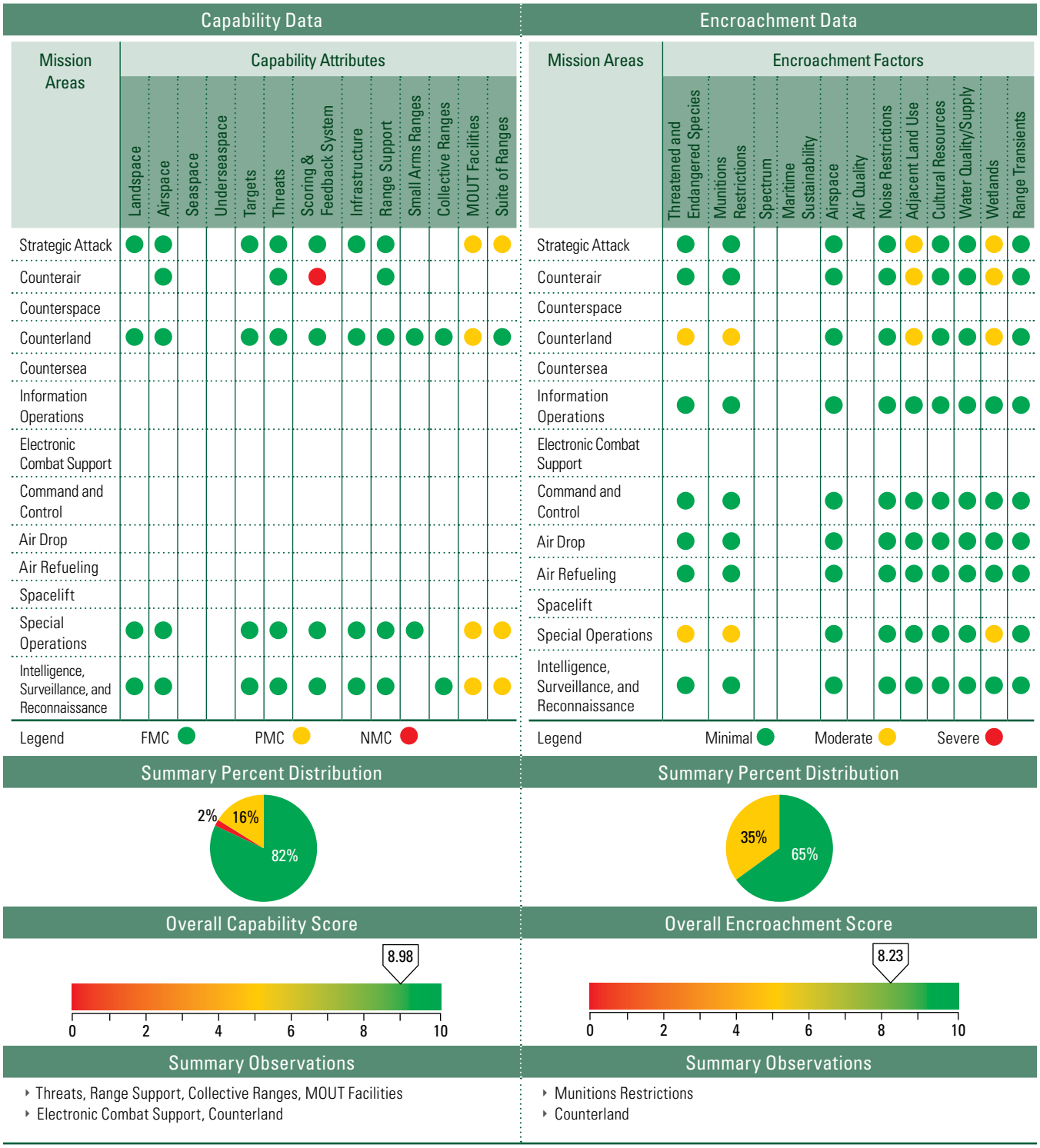


Figure 3-15 Air Force Capability and Encroachment Assessment Detail (continued)

Air Force Range: Avon Park

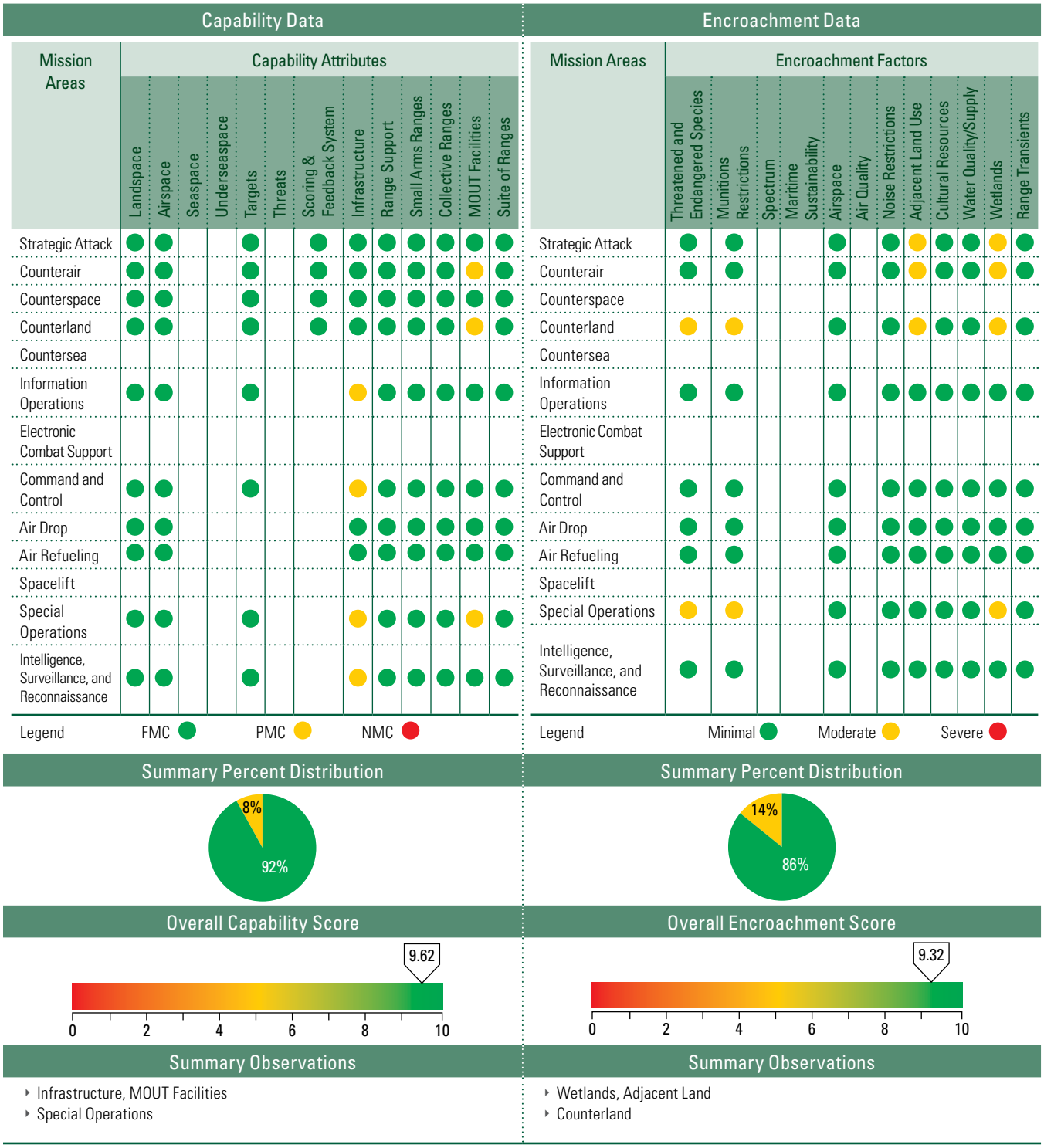


Figure 3-15 Air Force Capability and Encroachment Assessment Detail (continued)

Air Force Range: Blair Lakes

Capability Data

Mission Areas	Landspace	Airspace	Seaspace	Underseaspace	Targets	Threats	Scoring & Feedback System	Infrastructure	Range Support	Small Arms Ranges	Collective Ranges	MOUT Facilities	Suite of Ranges
	Capability Attributes												
Strategic Attack	PMC	PMC			PMC	PMC	PMC	PMC	PMC			PMC	PMC
Counterair	FMC	FMC			FMC	PMC	PMC	PMC	PMC			PMC	FMC
Counterspace	FMC	FMC			FMC	FMC	FMC	PMC	PMC			PMC	FMC
Counterland	PMC	PMC			PMC	PMC	PMC	PMC	PMC			PMC	PMC
Countersea													
Information Operations	FMC	FMC			FMC	FMC	FMC	PMC	PMC			PMC	FMC
Electronic Combat Support	PMC	FMC			FMC	FMC	FMC	PMC	PMC			PMC	FMC
Command and Control	PMC	FMC			FMC	FMC	FMC	PMC	PMC			PMC	FMC
Air Drop	PMC	PMC			PMC	FMC	FMC	PMC	PMC			PMC	PMC
Air Refueling	FMC	FMC			FMC	FMC	FMC	PMC	PMC			PMC	FMC
Spacelift	FMC	FMC			FMC	FMC	FMC	PMC	PMC			PMC	FMC
Special Operations	FMC	FMC			FMC	PMC	FMC	PMC	PMC			PMC	PMC
Intelligence, Surveillance, and Reconnaissance	FMC	FMC			FMC	FMC	FMC	PMC	PMC			PMC	FMC

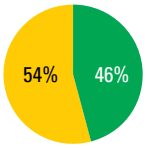
Legend: FMC, PMC, NMC

Encroachment Data

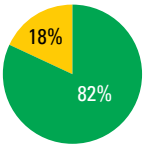
Mission Areas	Threatened and Endangered Species	Munitions Restrictions	Spectrum	Maritime Sustainability	Airspace	Air Quality	Noise Restrictions	Adjacent Land Use	Cultural Resources	Water Quality/Supply	Wetlands	Range Transients
	Encroachment Factors											
Strategic Attack	Severe	Severe	Minimal		Moderate	Minimal	Minimal	Moderate	Minimal	Minimal	Moderate	Minimal
Counterair	Minimal	Moderate	Minimal		Minimal	Minimal	Minimal	Moderate	Minimal	Minimal	Minimal	Minimal
Counterspace	Minimal	Minimal	Moderate		Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal
Counterland	Moderate	Moderate	Minimal		Moderate	Minimal	Minimal	Moderate	Minimal	Minimal	Moderate	Minimal
Countersea												
Information Operations	Minimal	Minimal	Minimal		Moderate	Minimal	Minimal	Moderate	Minimal	Minimal	Minimal	Minimal
Electronic Combat Support	Minimal	Minimal	Moderate		Minimal	Minimal	Minimal	Moderate	Minimal	Minimal	Minimal	Minimal
Command and Control	Minimal	Minimal	Minimal		Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal
Air Drop	Moderate	Moderate	Minimal		Moderate	Minimal	Minimal	Moderate	Minimal	Minimal	Moderate	Minimal
Air Refueling	Minimal	Minimal	Minimal		Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal
Spacelift	Minimal	Minimal	Minimal		Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal
Special Operations	Minimal	Minimal	Minimal		Moderate	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal
Intelligence, Surveillance, and Reconnaissance	Moderate	Minimal	Minimal		Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal

Legend: Minimal, Moderate, Severe

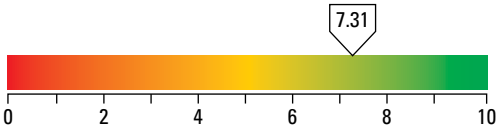
Summary Percent Distribution



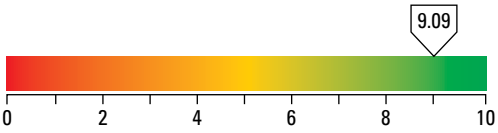
Summary Percent Distribution



Overall Capability Score



Overall Encroachment Score



Summary Observations

- Infrastructure, Range Support, MOUT Facilities, Landspace, Airspace, Targets, Threats, and Suite of Ranges

Summary Observations

- T&E Species, Munitions Restrictions, Airspace, Adjacent Land Use, and Wetlands
- Strategic Attack, Counterland

Figure 3-15 Air Force Capability and Encroachment Assessment Detail (continued)

Air Force Range: Barry M. Goldwater Range-East Complex

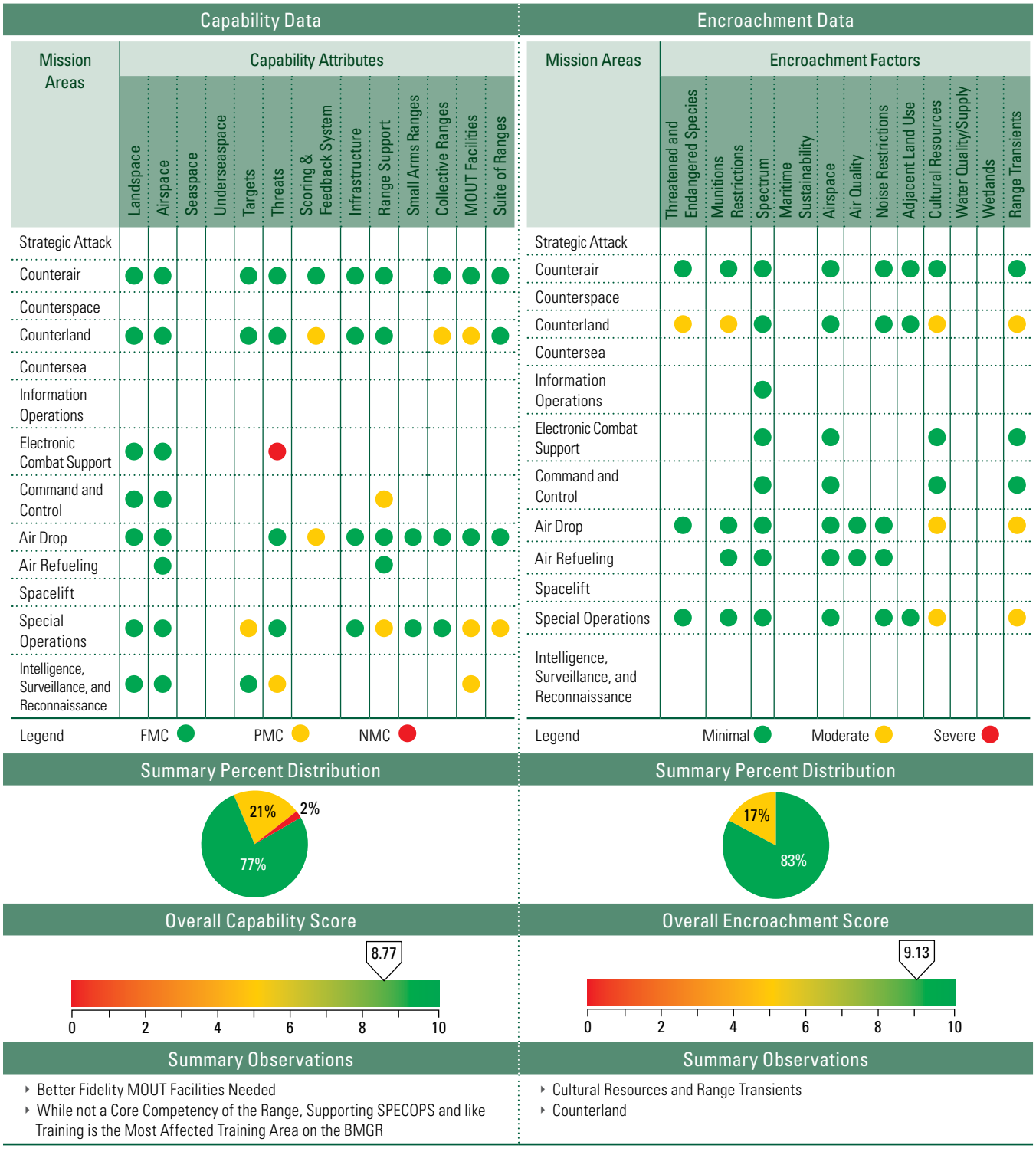


Figure 3-15 Air Force Capability and Encroachment Assessment Detail (continued)

Air Force Range: Bollen

Capability Data

Mission Areas	Landspace	Airspace	Seaspace	Underseaspace	Targets	Threats	Scoring & Feedback System	Infrastructure	Range Support	Small Arms Ranges	Collective Ranges	MOUT Facilities	Suite of Ranges
Strategic Attack	PMC	PMC			FMC	PMC	FMC	FMC	FMC	FMC	FMC	FMC	FMC
Counterair	PMC	PMC			FMC	PMC	FMC	FMC	FMC	FMC	FMC	FMC	FMC
Counterspace													
Counterland	PMC	PMC			FMC	PMC	FMC	FMC	FMC	FMC	FMC	FMC	FMC
Countersea													
Information Operations													
Electronic Combat Support													
Command and Control	FMC	FMC			FMC	FMC	FMC	FMC	FMC	FMC	FMC	FMC	FMC
Air Drop	PMC	PMC			FMC	PMC	FMC	FMC	FMC	FMC	FMC	FMC	FMC
Air Refueling													
Spacelift													
Special Operations	PMC	PMC			FMC	PMC	FMC	FMC	FMC	FMC	FMC	FMC	FMC
Intelligence, Surveillance, and Reconnaissance	PMC	PMC			FMC	FMC	FMC	FMC	FMC	FMC	FMC	FMC	FMC

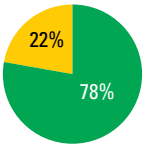
Legend: FMC PMC NMC

Encroachment Data

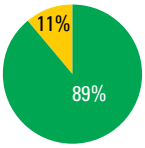
Mission Areas	Threatened and Endangered Species	Munitions Restrictions	Spectrum	Maritime Sustainability	Airspace	Air Quality	Noise Restrictions	Adjacent Land Use	Cultural Resources	Water Quality/Supply	Wetlands	Range Transients
Strategic Attack	Minimal	Moderate	Minimal		Moderate	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal
Counterair	Minimal	Moderate	Minimal		Moderate	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal
Counterspace												
Counterland	Minimal	Moderate	Minimal		Moderate	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal
Countersea												
Information Operations												
Electronic Combat Support	Minimal	Minimal	Minimal		Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal
Command and Control	Minimal	Minimal	Minimal		Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal
Air Drop	Moderate	Minimal	Minimal		Moderate	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal
Air Refueling												
Spacelift												
Special Operations	Minimal	Minimal	Minimal		Moderate	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal
Intelligence, Surveillance, and Reconnaissance	Minimal	Minimal	Minimal		Moderate	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal

Legend: Minimal Moderate Severe

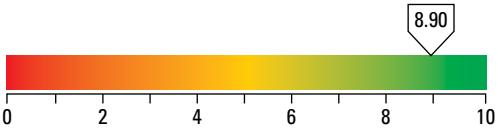
Summary Percent Distribution



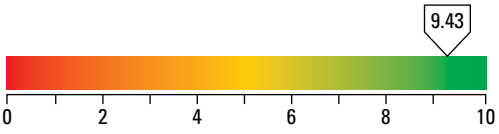
Summary Percent Distribution



Overall Capability Score



Overall Encroachment Score



Summary Observations

- Landspace, Airspace, and Threats

Summary Observations

- Airspace and Munitions Restrictions
- Strategic Attack, Counterair, Counterland, and Air Drop

Figure 3-15 Air Force Capability and Encroachment Assessment Detail (continued)

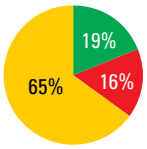
Air Force Range: Cannon

Capability Data

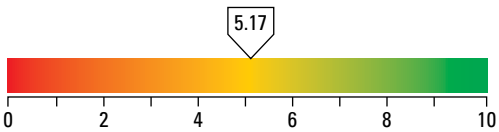
Mission Areas	Landspace	Airspace	Seaspace	Underseaspace	Targets	Threats	Scoring & Feedback System	Infrastructure	Range Support	Small Arms Ranges	Collective Ranges	MOUT Facilities	Suite of Ranges
Strategic Attack	PMC	NMC			PMC	PMC	PMC	PMC	PMC				
Counterair													
Counterspace													
Counterland	PMC	PMC			FMC	PMC	PMC	PMC	PMC		FMC	PMC	
Countersea													
Information Operations	FMC					NMC		PMC	PMC				
Electronic Combat Support	FMC	PMC			PMC	NMC	NMC	PMC	PMC				
Command and Control	FMC	PMC			FMC	NMC	NMC	NMC	PMC			PMC	
Air Drop	PMC	PMC			FMC	PMC	FMC	FMC	PMC				
Air Refueling													
Spacelift													
Special Operations	PMC	PMC			FMC	PMC	PMC	PMC	PMC		PMC	PMC	
Intelligence, Surveillance, and Reconnaissance	FMC	PMC			PMC	NMC	NMC	PMC	PMC				

Legend: FMC, PMC, NMC

Summary Percent Distribution



Overall Capability Score



Summary Observations

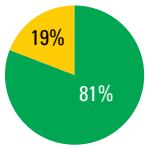
- Threats, Scoring and Feedback System
- Command and Control

Encroachment Data

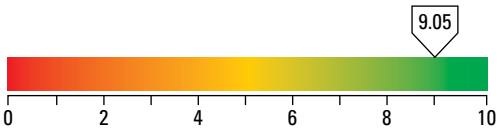
Mission Areas	Threatened and Endangered Species	Munitions Restrictions	Spectrum	Maritime Sustainability	Airspace	Air Quality	Noise Restrictions	Adjacent Land Use	Cultural Resources	Water Quality/Supply	Wetlands	Range Transients
Strategic Attack	Minimal	Moderate	Minimal		Minimal	Minimal	Minimal	Moderate	Minimal	Minimal	Minimal	Minimal
Counterair	Minimal	Moderate	Minimal		Minimal	Minimal	Minimal		Minimal	Minimal		Minimal
Counterspace												
Counterland	Minimal	Moderate	Minimal		Moderate	Minimal	Minimal	Moderate	Minimal	Minimal	Minimal	Minimal
Countersea												
Information Operations												
Electronic Combat Support	Minimal	Moderate	Minimal		Minimal	Minimal	Minimal	Moderate	Minimal	Minimal	Minimal	Minimal
Command and Control	Minimal		Minimal		Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal
Air Drop	Minimal	Moderate	Minimal		Moderate	Minimal	Minimal	Moderate	Minimal	Minimal	Minimal	Minimal
Air Refueling												
Spacelift												
Special Operations	Minimal	Moderate	Minimal		Moderate	Minimal	Minimal	Moderate	Minimal	Minimal	Minimal	Minimal
Intelligence, Surveillance, and Reconnaissance	Minimal		Minimal		Moderate	Minimal	Minimal	Moderate	Minimal	Minimal	Minimal	Minimal

Legend: Minimal, Moderate, Severe

Summary Percent Distribution



Overall Encroachment Score



Summary Observations

- Munitions Restrictions, Adjacent Land Use, and Airspace
- Counterland, Air Drop, Special Operations

Figure 3-15 Air Force Capability and Encroachment Assessment Detail (continued)

Air Force Range: Claiborne

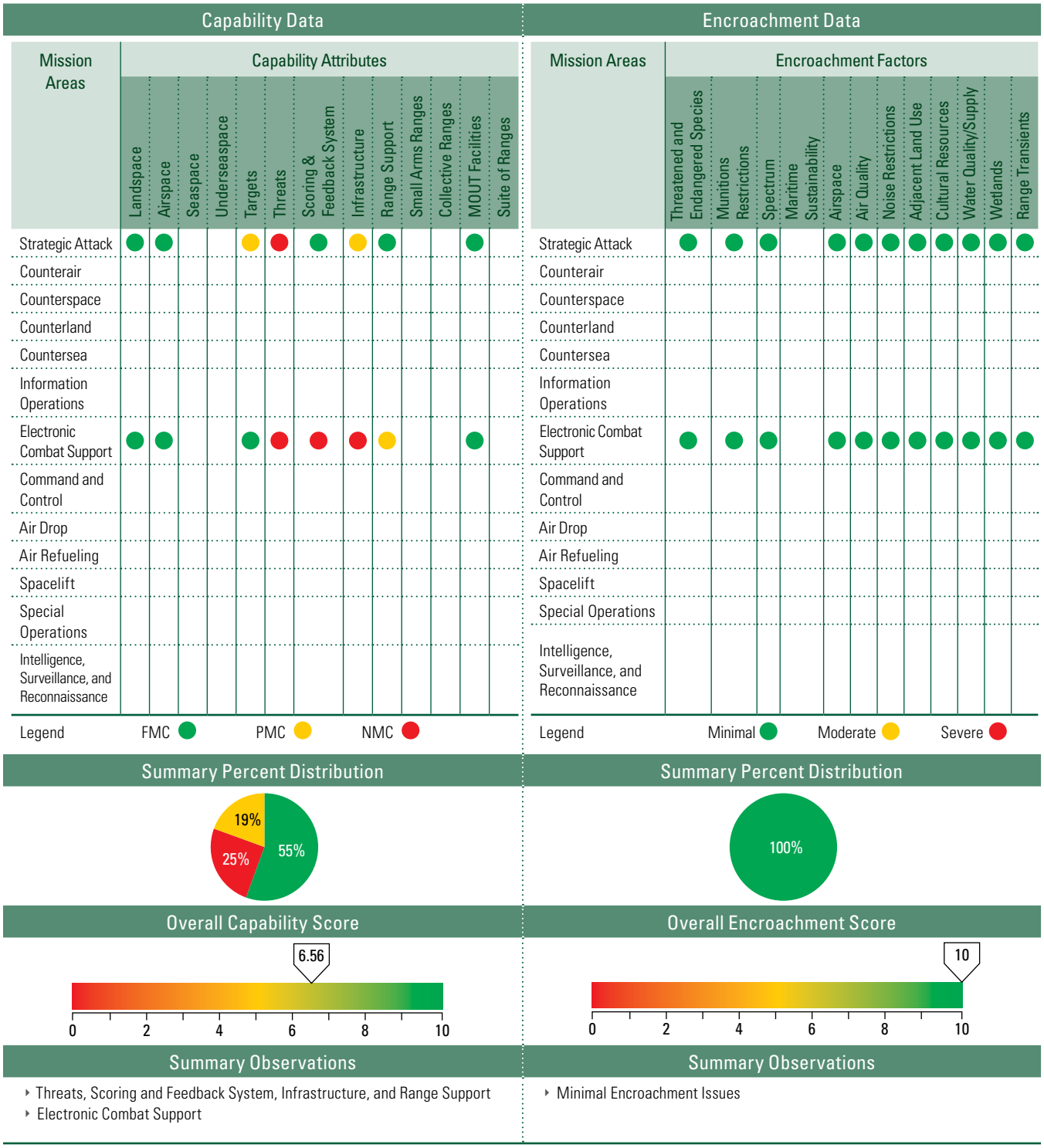


Figure 3-15 Air Force Capability and Encroachment Assessment Detail (continued)

Air Force Range: Dare County

Capability Data

Mission Areas	Landspace	Airspace	Seaspace	Underseaspace	Targets	Threats	Scoring & Feedback System	Infrastructure	Range Support	Small Arms Ranges	Collective Ranges	MOUT Facilities	Suite of Ranges
Strategic Attack	●	●	●		●	●	●	●	●	●	●	●	●
Counterair	●	●	●		●	●	●	●	●	●	●	●	●
Counterspace													
Counterland	●	●	●		●	●	●	●	●	●	●	●	●
Countersea													
Information Operations	●	●	●		●	●	●	●	●	●	●	●	●
Electronic Combat Support	●	●	●		●	●	●	●	●	●	●	●	●
Command and Control	●	●	●		●	●	●	●	●	●	●	●	●
Air Drop	●	●	●		●	●	●	●	●	●	●	●	●
Air Refueling													
Spacelift													
Special Operations	●	●	●		●	●	●	●	●	●	●	●	●
Intelligence, Surveillance, and Reconnaissance	●	●	●		●	●	●	●	●	●	●	●	●

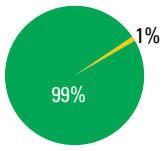
Legend: FMC ● PMC ● NMC ●

Encroachment Data

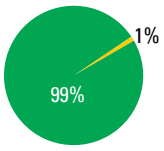
Mission Areas	Threatened and Endangered Species	Munitions Restrictions	Spectrum	Maritime Sustainability	Airspace	Air Quality	Noise Restrictions	Adjacent Land Use	Cultural Resources	Water Quality/Supply	Wetlands	Range Transients
Strategic Attack	●	●	●	●	●	●	●	●	●	●	●	●
Counterair	●	●	●	●	●	●	●	●	●	●	●	●
Counterspace												
Counterland	●	●	●	●	●	●	●	●	●	●	●	●
Countersea												
Information Operations	●	●	●	●	●	●	●	●	●	●	●	●
Electronic Combat Support	●	●	●	●	●	●	●	●	●	●	●	●
Command and Control	●	●	●	●	●	●	●	●	●	●	●	●
Air Drop	●	●	●	●	●	●	●	●	●	●	●	●
Air Refueling												
Spacelift												
Special Operations	●	●	●	●	●	●	●	●	●	●	●	●
Intelligence, Surveillance, and Reconnaissance	●	●	●	●	●	●	●	●	●	●	●	●

Legend: Minimal ● Moderate ● Severe ●

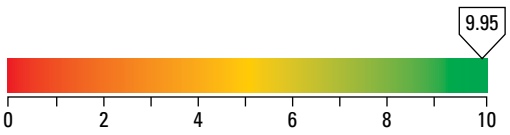
Summary Percent Distribution



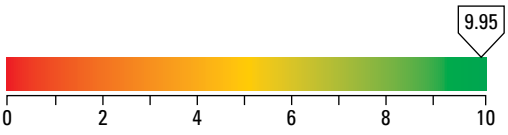
Summary Percent Distribution



Overall Capability Score



Overall Encroachment Score



Summary Observations

- Landspace
- Counterland

Summary Observations

- Wetlands
- Counterland

Figure 3-15 Air Force Capability and Encroachment Assessment Detail (continued)

Air Force Range: Edwards Test Range

Capability Data

Mission Areas	Landspace	Airspace	Seaspace	Underseaspace	Targets	Threats	Scoring & Feedback System	Infrastructure	Range Support	Small Arms Ranges	Collective Ranges	MOUT Facilities	Suite of Ranges
	Capability Attributes												
Strategic Attack	PMC	FMC			PMC	PMC	FMC	FMC	FMC	FMC	FMC	NMC	FMC
Counterair	PMC	FMC			PMC	PMC	FMC	FMC	FMC	FMC	FMC	NMC	FMC
Counterspace		FMC					FMC		FMC				
Counterland	PMC	FMC			FMC	PMC	FMC	FMC	FMC	FMC	FMC	NMC	FMC
Countersea							FMC		FMC				
Information Operations	FMC	FMC					FMC	FMC	FMC				FMC
Electronic Combat Support	FMC	FMC			FMC	PMC	FMC	FMC	FMC		FMC		FMC
Command and Control	FMC	FMC			FMC	FMC	FMC	FMC	FMC		FMC		FMC
Air Drop	FMC	FMC			FMC	PMC	FMC	FMC	FMC		FMC	NMC	FMC
Air Refueling	FMC	FMC				FMC	FMC		FMC		FMC		FMC
Spacelift		FMC					FMC		FMC				
Special Operations	PMC	FMC			PMC	FMC	FMC	FMC	FMC	FMC	FMC	NMC	FMC
Intelligence, Surveillance, and Reconnaissance	FMC	FMC			FMC	PMC	FMC	FMC	FMC		FMC	NMC	FMC

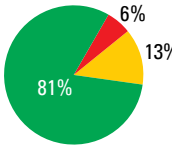
Legend: FMC, PMC, NMC

Encroachment Data

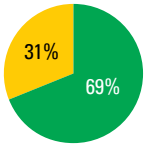
Mission Areas	Threatened and Endangered Species	Munitions Restrictions	Spectrum	Maritime Sustainability	Airspace	Air Quality	Noise Restrictions	Adjacent Land Use	Cultural Resources	Water Quality/Supply	Wetlands	Range Transients
	Encroachment Factors											
Strategic Attack									Minimal			Minimal
Counterair		Moderate	Minimal		Moderate	Moderate	Minimal		Minimal			Minimal
Counterspace									Minimal			Minimal
Counterland	Minimal	Moderate	Minimal			Moderate		Minimal	Minimal	Minimal		Minimal
Countersea												
Information Operations			Moderate		Moderate		Moderate		Minimal			Minimal
Electronic Combat Support			Moderate		Minimal			Minimal	Minimal	Minimal		Minimal
Command and Control			Moderate		Moderate		Minimal		Minimal	Minimal		Minimal
Air Drop	Moderate	Moderate	Minimal		Minimal			Minimal	Moderate			Minimal
Air Refueling					Minimal							
Spacelift												
Special Operations			Minimal									
Intelligence, Surveillance, and Reconnaissance			Moderate		Minimal	Moderate	Minimal		Minimal			Minimal

Legend: Minimal, Moderate, Severe

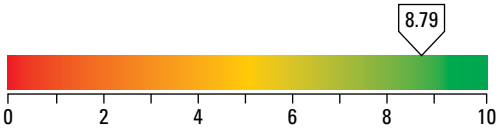
Summary Percent Distribution



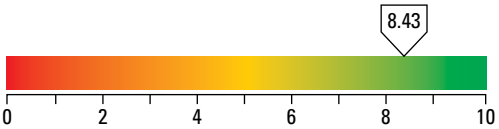
Summary Percent Distribution



Overall Capability Score



Overall Encroachment Score



Summary Observations

- MOUT Facilities, Threats, Landspace, Targets
- Strategic Attack, Counterair

Summary Observations

- Spectrum, Munitions Restrictions, Cultural Resources

Figure 3-15 Air Force Capability and Encroachment Assessment Detail (continued)

Air Force Range: Edwards Training Range

Capability Data

Mission Areas	Landspace	Airspace	Seaspace	Underseaspace	Targets	Threats	Scoring & Feedback System	Infrastructure	Range Support	Small Arms Ranges	Collective Ranges	MOUT Facilities	Suite of Ranges
Strategic Attack	PMC	FMC			PMC	PMC	PMC	FMC	FMC	FMC	PMC	NMC	PMC
Counterair	PMC	FMC			PMC	PMC	PMC	PMC	FMC	FMC	PMC	NMC	PMC
Counterspace									FMC				
Counterland	PMC	FMC			PMC	PMC	PMC	PMC	FMC	FMC	PMC	NMC	PMC
Countersea									FMC				
Information Operations	FMC	FMC					PMC		FMC			NMC	
Electronic Combat Support	FMC	FMC					PMC		FMC			NMC	
Command and Control	FMC	FMC			FMC	FMC	FMC	FMC	FMC		FMC	NMC	FMC
Air Drop	FMC	FMC			FMC	PMC	FMC	FMC	FMC		FMC	NMC	FMC
Air Refueling	FMC	FMC				PMC	FMC	FMC	FMC		FMC		
Spacelift									FMC				
Special Operations	PMC	FMC			PMC	PMC	PMC	PMC	FMC	FMC	PMC	NMC	PMC
Intelligence, Surveillance, and Reconnaissance	PMC	FMC			PMC	PMC	PMC	PMC	FMC		PMC	NMC	PMC

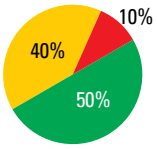
Legend: FMC, PMC, NMC

Encroachment Data

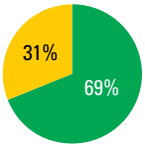
Mission Areas	Threatened and Endangered Species	Munitions Restrictions	Spectrum	Maritime Sustainability	Airspace	Air Quality	Noise Restrictions	Adjacent Land Use	Cultural Resources	Water Quality/Supply	Wetlands	Range Transients
Strategic Attack									Minimal			Minimal
Counterair		Moderate	Minimal		Moderate	Moderate	Severe		Minimal			Minimal
Counterspace									Minimal			Minimal
Counterland	Severe	Moderate	Minimal			Moderate		Severe	Minimal	Severe		Minimal
Countersea												
Information Operations			Moderate		Moderate		Moderate		Minimal			Minimal
Electronic Combat Support			Moderate		Minimal			Severe	Minimal	Severe		Minimal
Command and Control			Moderate		Moderate		Severe		Minimal	Severe		Minimal
Air Drop	Moderate	Moderate	Minimal		Minimal			Severe	Moderate			Minimal
Air Refueling					Minimal							
Spacelift												
Special Operations			Minimal									
Intelligence, Surveillance, and Reconnaissance			Moderate		Minimal	Moderate	Severe		Minimal			Minimal

Legend: Minimal, Moderate, Severe

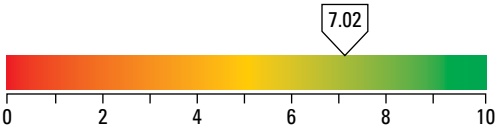
Summary Percent Distribution



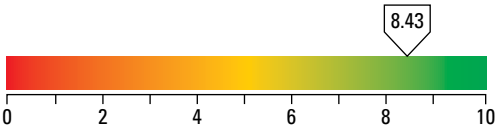
Summary Percent Distribution



Overall Capability Score



Overall Encroachment Score



Summary Observations

- MOUT Facilities, Threats, Scoring and Feedback System, Landspace, Targets, Collective Ranges, Suite of Ranges Counterair, Counterland

Summary Observations

- Spectrum, Munitions Restrictions, Cultural Resources

Figure 3-15 Air Force Capability and Encroachment Assessment Detail (continued)

Air Force Range: Eglin

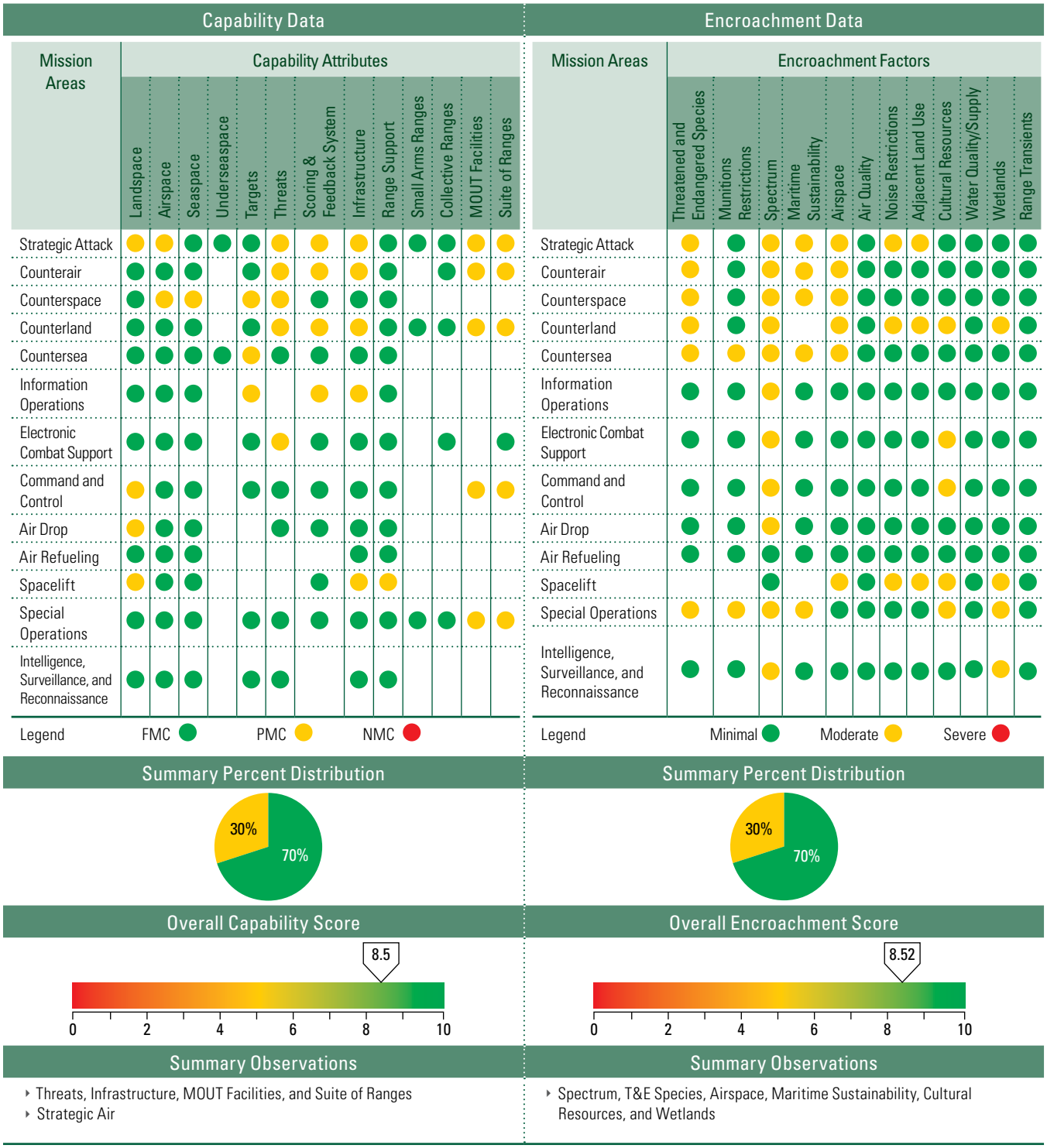


Figure 3-15 Air Force Capability and Encroachment Assessment Detail (continued)

Air Force Range: Falcon

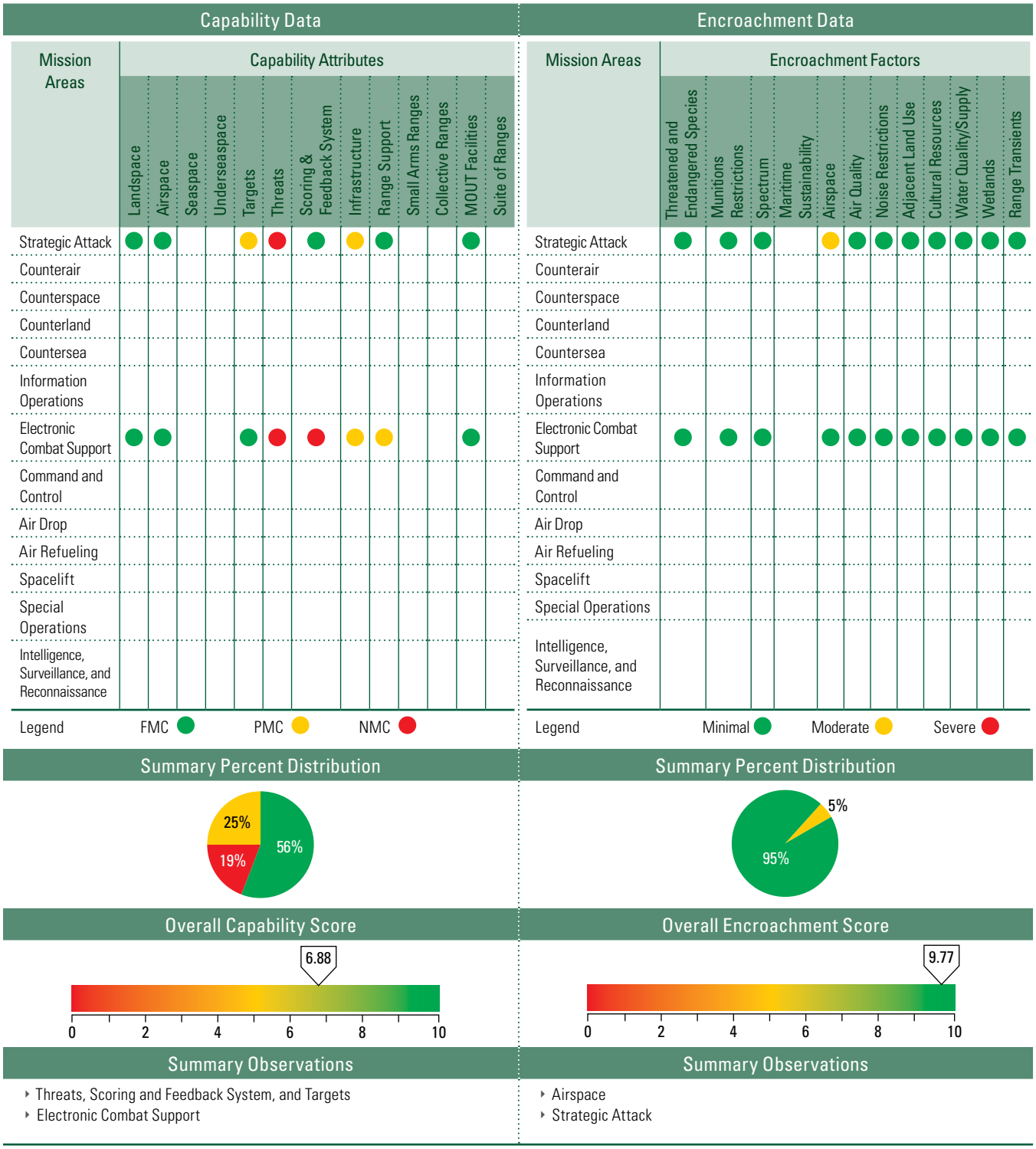


Figure 3-15 Air Force Capability and Encroachment Assessment Detail (continued)

Air Force Range: Grand Bay

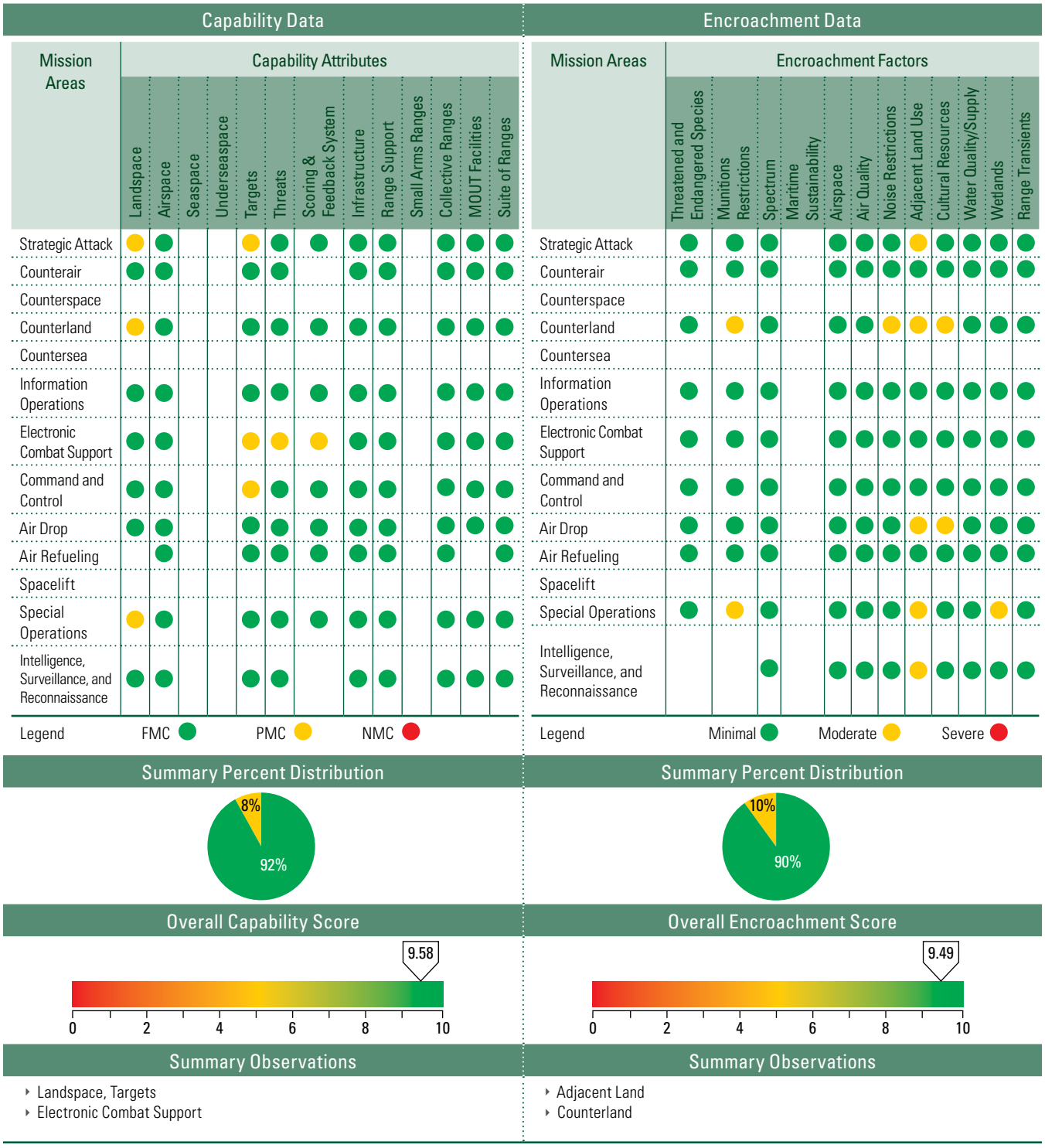


Figure 3-15 Air Force Capability and Encroachment Assessment Detail (continued)

Air Force Range: Grayling

Capability Data

Mission Areas	Landspace	Airspace	Seaspace	Underseaspace	Targets	Threats	Scoring & Feedback System	Infrastructure	Range Support	Small Arms Ranges	Collective Ranges	MOUT Facilities	Suite of Ranges
Strategic Attack	FMC	FMC			FMC	PMC	FMC	FMC	PMC		FMC	FMC	FMC
Counterair	FMC	FMC			FMC	FMC	FMC	FMC	FMC		FMC		FMC
Counterspace													
Counterland	FMC	PMC			PMC	FMC	FMC	FMC	PMC	FMC	FMC	FMC	PMC
Countersea													
Information Operations	FMC	FMC			FMC	FMC	FMC	FMC	FMC				FMC
Electronic Combat Support	FMC	PMC			FMC	PMC	FMC	FMC	FMC				FMC
Command and Control	FMC	FMC			FMC	FMC	FMC	FMC	FMC				FMC
Air Drop	FMC	FMC			FMC	FMC	FMC	FMC	FMC				FMC
Air Refueling	FMC	FMC			FMC	FMC	FMC	FMC	FMC				FMC
Spacelift													
Special Operations	FMC	PMC			FMC	FMC	FMC	FMC	PMC	FMC	FMC	FMC	PMC
Intelligence, Surveillance, and Reconnaissance	FMC	FMC			FMC	FMC	FMC	FMC	FMC			FMC	FMC

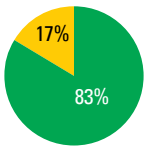
Legend: FMC, PMC, NMC

Encroachment Data

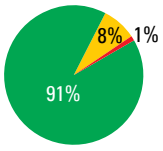
Mission Areas	Threatened and Endangered Species	Munitions Restrictions	Spectrum	Maritime Sustainability	Airspace	Air Quality	Noise Restrictions	Adjacent Land Use	Cultural Resources	Water Quality/Supply	Wetlands	Range Transients
Strategic Attack	Minimal	Minimal	Minimal		Moderate	Minimal	Moderate	Minimal	Minimal	Minimal	Minimal	Minimal
Counterair	Minimal	Minimal	Minimal		Moderate	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal
Counterspace												
Counterland	Minimal	Minimal	Minimal		Severe	Minimal	Moderate	Minimal	Minimal	Minimal	Minimal	Minimal
Countersea												
Information Operations												
Electronic Combat Support	Minimal	Minimal	Minimal		Moderate	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal
Command and Control	Minimal	Minimal	Minimal		Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal
Air Drop	Minimal	Minimal	Minimal		Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal
Air Refueling	Minimal	Minimal	Minimal		Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal
Spacelift												
Special Operations	Minimal	Minimal	Minimal		Moderate	Minimal	Moderate	Minimal	Minimal	Minimal	Minimal	Minimal
Intelligence, Surveillance, and Reconnaissance	Minimal	Minimal	Minimal		Moderate	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal

Legend: Minimal, Moderate, Severe

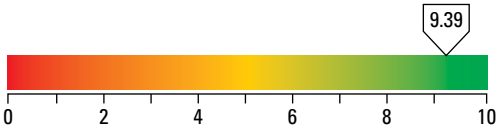
Summary Percent Distribution



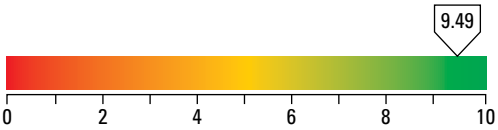
Summary Percent Distribution



Overall Capability Score



Overall Encroachment Score



Summary Observations

- Airspace, Range Support, Threats, Suite of Ranges
- Counterland

Summary Observations

- Airspace and Noise Restrictions
- Counterland

Figure 3-15 Air Force Capability and Encroachment Assessment Detail (continued)

Air Force Range: Hardwood

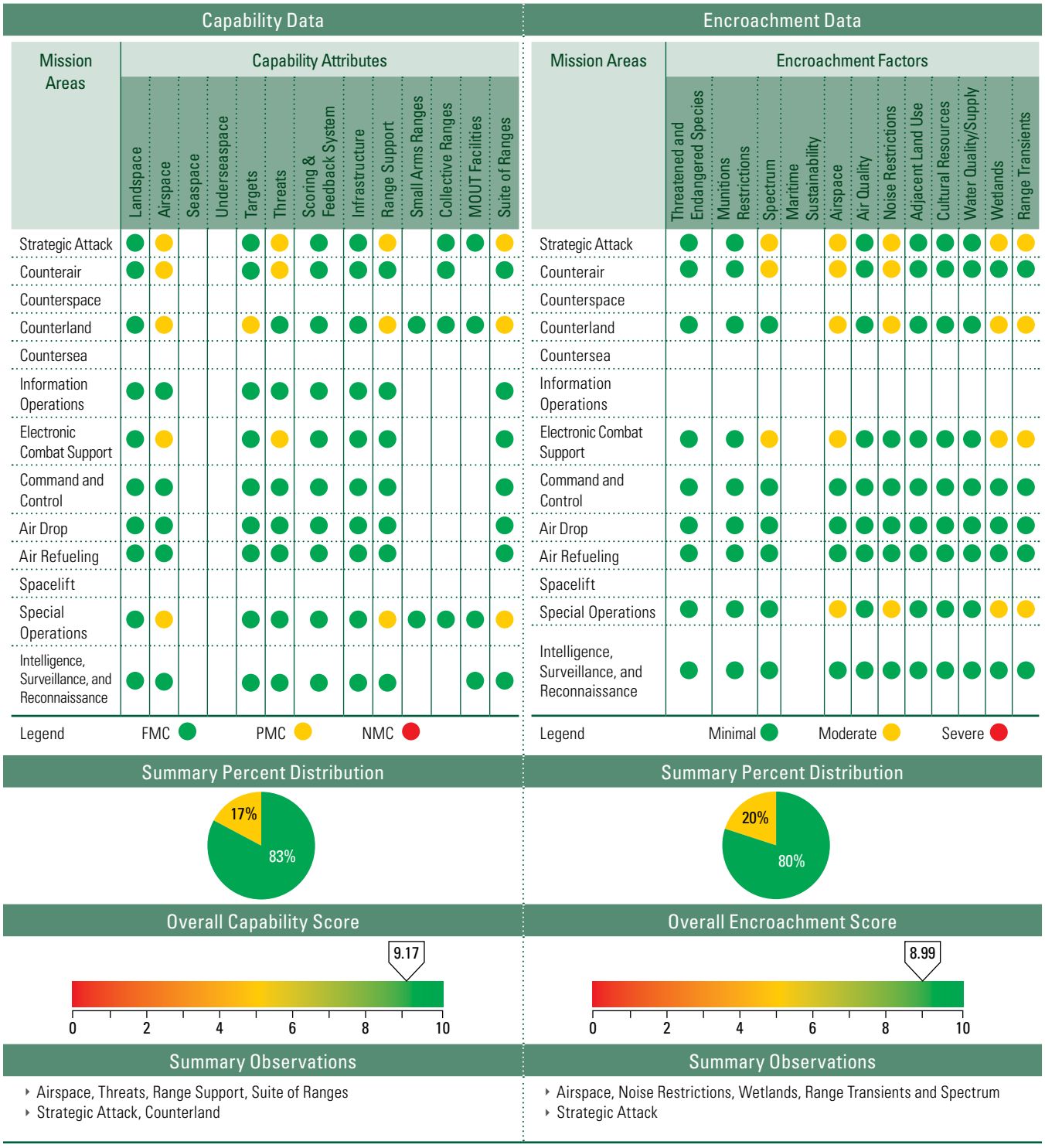


Figure 3-15 Air Force Capability and Encroachment Assessment Detail (continued)

Air Force Range: Holloman

Capability Data

Mission Areas	Landspace	Airspace	Seaspace	Underseaspace	Targets	Threats	Scoring & Feedback System	Infrastructure	Range Support	Small Arms Ranges	Collective Ranges	MOUT Facilities	Suite of Ranges
Strategic Attack	FMC	FMC			FMC	NMC	FMC	FMC	FMC		FMC	PMC	FMC
Counterair	FMC	FMC			NMC	NMC							
Counterspace													
Counterland	FMC	FMC			FMC	NMC							
Countersea													
Information Operations													
Electronic Combat Support													
Command and Control													
Air Drop	FMC	FMC											
Air Refueling	FMC	FMC										FMC	
Spacelift													
Special Operations													
Intelligence, Surveillance, and Reconnaissance													

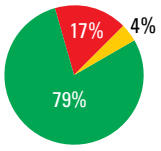
Legend: FMC, PMC, NMC

Encroachment Data

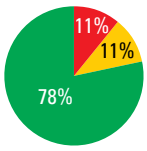
Mission Areas	Threatened and Endangered Species	Munitions Restrictions	Spectrum	Maritime Sustainability	Airspace	Air Quality	Noise Restrictions	Adjacent Land Use	Cultural Resources	Water Quality/Supply	Wetlands	Range Transients
Strategic Attack		Minimal	Minimal		Minimal				Minimal			
Counterair	Minimal				Minimal			Minimal	Minimal			
Counterspace												
Counterland		Minimal	Minimal		Minimal				Minimal			
Countersea												
Information Operations												
Electronic Combat Support			Severe		Moderate			Severe				
Command and Control												
Air Drop					Minimal			Minimal	Minimal			
Air Refueling					Minimal							
Spacelift												
Special Operations												
Intelligence, Surveillance, and Reconnaissance												

Legend: Minimal, Moderate, Severe

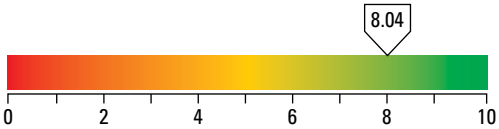
Summary Percent Distribution



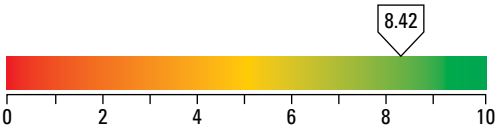
Summary Percent Distribution



Overall Capability Score



Overall Encroachment Score



Summary Observations

- Threats, Targets, MOUT Facilities
- Counterair

Summary Observations

- Spectrum and Adjacent Land Use, Airspace and Munitions Restrictions
- Electronic Combat Support

Figure 3-15 Air Force Capability and Encroachment Assessment Detail (continued)

Air Force Range: Jefferson

Capability Data

Mission Areas	Landspace	Airspace	Seaspace	Underseaspace	Targets	Threats	Scoring & Feedback System	Infrastructure	Range Support	Small Arms Ranges	Collective Ranges	MOUT Facilities	Suite of Ranges
	Capability Attributes												
Strategic Attack	●	●			●	●	●	●	●	●	●	●	●
Counterair													
Counterspace													
Counterland	●	●			●	●	●	●	●	●	●	●	●
Countersea													
Information Operations	●	●			●	●	●	●	●	●		●	●
Electronic Combat Support	●	●			●	●	●	●	●	●		●	●
Command and Control	●	●			●	●	●	●	●	●		●	●
Air Drop	●	●			●	●	●	●	●	●	●	●	●
Air Refueling													
Spacelift													
Special Operations	●	●			●	●	●	●	●	●	●	●	●
Intelligence, Surveillance, and Reconnaissance	●	●			●	●	●	●	●	●		●	●

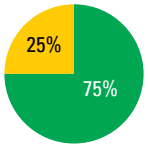
Legend: FMC ● PMC ● NMC ●

Encroachment Data

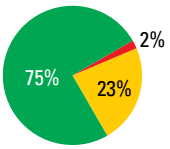
Mission Areas	Threatened and Endangered Species	Munitions Restrictions	Spectrum	Maritime Sustainability	Airspace	Air Quality	Noise Restrictions	Adjacent Land Use	Cultural Resources	Water Quality/Supply	Wetlands	Range Transients
	Encroachment Factors											
Strategic Attack	●	●	●		●	●	●	●	●	●	●	●
Counterair	●	●	●		●	●	●	●		●	●	●
Counterspace												
Counterland	●	●	●		●	●	●	●	●	●	●	●
Countersea												
Information Operations	●	●	●		●	●	●	●	●	●	●	●
Electronic Combat Support	●	●	●		●	●	●	●	●	●	●	●
Command and Control	●	●	●		●	●	●	●	●	●	●	●
Air Drop	●	●	●		●	●	●	●	●	●	●	●
Air Refueling												
Spacelift												
Special Operations	●	●	●		●	●	●	●	●	●	●	●
Intelligence, Surveillance, and Reconnaissance		●	●		●	●	●	●	●	●	●	●

Legend: Minimal ● Moderate ● Severe ●

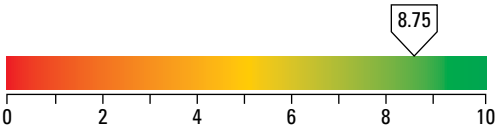
Summary Percent Distribution



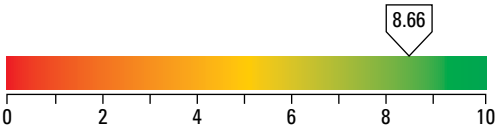
Summary Percent Distribution



Overall Capability Score



Overall Encroachment Score



Summary Observations

- Small Arms Range, Scoring and Feedback System, Targets
- Information Operations, Electronic Combat Support

Summary Observations

- Adjacent Land Use, Noise Restrictions, T&E Species, Cultural Resources and Spectrum Issues

Figure 3-15 Air Force Capability and Encroachment Assessment Detail (continued)

Air Force Range: McMullen

Capability Data

Mission Areas	Landspace	Airspace	Seaspace	Underseaspace	Targets	Threats	Scoring & Feedback System	Infrastructure	Range Support	Small Arms Ranges	Collective Ranges	MOUT Facilities	Suite of Ranges
Strategic Attack	PMC	PMC			FMC	FMC	FMC	FMC	FMC				PMC
Counterair	PMC	PMC			FMC	FMC	FMC	FMC	FMC				PMC
Counterspace													
Counterland	PMC	PMC			FMC	FMC	FMC	PMC	FMC	FMC	FMC		PMC
Countersea													
Information Operations	FMC	FMC				FMC		FMC	FMC				PMC
Electronic Combat Support	FMC	FMC			FMC	FMC	FMC	FMC	FMC				PMC
Command and Control	FMC	FMC			FMC	FMC		FMC	FMC				PMC
Air Drop	PMC	FMC			FMC	FMC	FMC	FMC	FMC		FMC		PMC
Air Refueling		FMC				NMC		FMC	FMC				
Spacelift													
Special Operations	PMC	PMC			FMC	FMC	FMC	PMC	FMC	FMC	FMC		PMC
Intelligence, Surveillance, and Reconnaissance	PMC	PMC			FMC	FMC	FMC	PMC	FMC		FMC		PMC

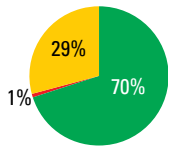
Legend: FMC, PMC, NMC

Encroachment Data

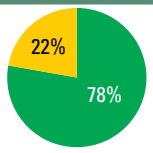
Mission Areas	Threatened and Endangered Species	Munitions Restrictions	Spectrum	Maritime Sustainability	Airspace	Air Quality	Noise Restrictions	Adjacent Land Use	Cultural Resources	Water Quality/Supply	Wetlands	Range Transients
Strategic Attack	Minimal	Moderate	Minimal		Minimal	Minimal	Minimal	Moderate	Minimal	Moderate	Minimal	Minimal
Counterair	Minimal	Moderate	Minimal		Minimal	Minimal	Minimal	Moderate	Minimal	Moderate	Minimal	Minimal
Counterspace												
Counterland	Minimal	Moderate	Minimal		Moderate	Minimal	Moderate	Moderate	Minimal	Moderate	Minimal	Minimal
Countersea												
Information Operations	Minimal	Minimal	Minimal						Minimal	Moderate	Minimal	Minimal
Electronic Combat Support	Minimal	Minimal	Minimal		Minimal	Minimal	Minimal	Minimal	Minimal	Moderate	Minimal	Minimal
Command and Control	Minimal	Minimal	Minimal		Minimal	Minimal	Minimal	Minimal	Minimal	Moderate	Minimal	Minimal
Air Drop	Minimal	Minimal	Minimal		Moderate	Minimal	Minimal	Moderate	Minimal	Moderate	Minimal	Minimal
Air Refueling	Minimal	Minimal	Minimal		Minimal	Minimal	Minimal	Minimal	Minimal	Moderate	Minimal	Minimal
Spacelift												
Special Operations	Minimal	Moderate	Minimal		Moderate	Minimal	Minimal	Minimal	Minimal	Moderate	Minimal	Minimal
Intelligence, Surveillance, and Reconnaissance	Minimal	Minimal	Minimal		Moderate	Minimal	Minimal	Minimal	Minimal	Moderate	Minimal	Minimal

Legend: Minimal, Moderate, Severe

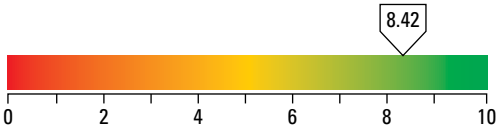
Summary Percent Distribution



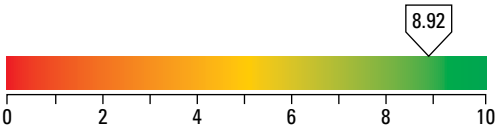
Summary Percent Distribution



Overall Capability Score



Overall Encroachment Score



Summary Observations

- Threats, Suite of Ranges, Landspace, Airspace, and Infrastructure
- Air Refueling

Summary Observations

- Water Quality/Supply, Munitions Restrictions, Airspace, Adjacent Land Use
- Counterland

Figure 3-15 Air Force Capability and Encroachment Assessment Detail (continued)

Air Force Range: Melrose

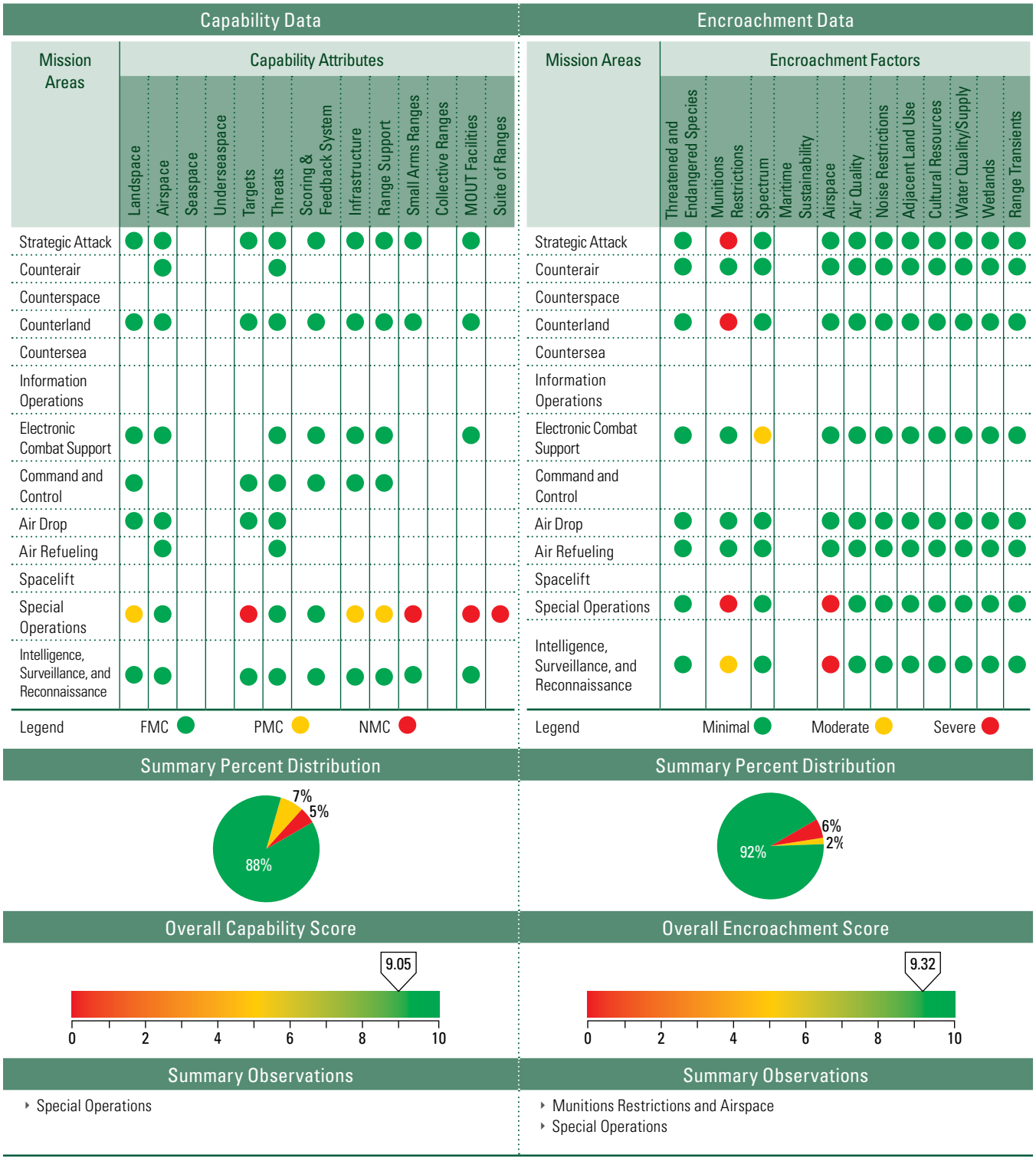


Figure 3-15 Air Force Capability and Encroachment Assessment Detail (continued)

Air Force Range: Mountain Home

Capability Data

Mission Areas	Landspace	Airspace	Seaspace	Underseaspace	Targets	Threats	Scoring & Feedback System	Infrastructure	Range Support	Small Arms Ranges	Collective Ranges	MOUT Facilities	Suite of Ranges
Strategic Attack	●	●			●	●	●	●	●		●	●	●
Counterair	●	●			●	●	●	●	●		●	●	●
Counterspace													
Counterland	●	●			●	●	●	●	●		●	●	●
Countersea													
Information Operations													
Electronic Combat Support	●	●			●	●	●	●	●		●		●
Command and Control	●	●			●	●	●	●	●		●	●	
Air Drop	●	●			●	●		●	●		●		●
Air Refueling	●	●				●		●	●		●		●
Spacelift													
Special Operations	●	●			●	●	●	●	●		●	●	●
Intelligence, Surveillance, and Reconnaissance													

Legend FMC ● PMC ● NMC ●

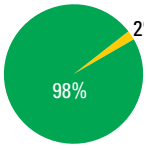
Encroachment Data

Mission Areas	Threatened and Endangered Species	Munitions Restrictions	Spectrum	Maritime Sustainability	Airspace	Air Quality	Noise Restrictions	Adjacent Land Use	Cultural Resources	Water Quality/Supply	Wetlands	Range Transients
Strategic Attack	●	●	●		●	●	●	●	●	●	●	●
Counterair	●	●	●		●	●	●	●	●	●	●	●
Counterspace												
Counterland	●	●	●		●	●	●	●	●	●	●	●
Countersea												
Information Operations												
Electronic Combat Support	●	●	●		●	●	●	●	●	●	●	●
Command and Control	●	●	●		●	●	●	●	●	●	●	●
Air Drop	●	●	●		●	●	●	●	●	●	●	●
Air Refueling	●	●	●		●	●	●	●	●	●	●	●
Spacelift												
Special Operations	●	●	●		●	●	●	●	●	●	●	●
Intelligence, Surveillance, and Reconnaissance												

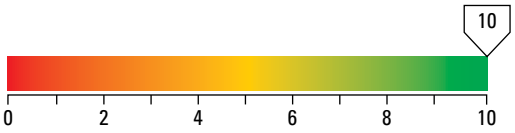
Legend Minimal ● Moderate ● Severe ●

Summary Percent Distribution

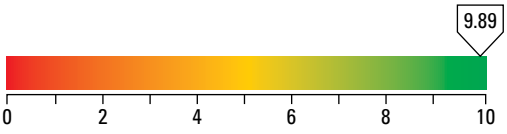
Summary Percent Distribution



Overall Capability Score



Overall Encroachment Score



Summary Observations

- Fully Mission Capable

Summary Observations

- Munitions Restrictions
- Strategic Attack, Counterland

Figure 3-15 Air Force Capability and Encroachment Assessment Detail (continued)

Air Force Range: Nevada Test and Training Range

Capability Data

Mission Areas	Landspace	Airspace	Seaspace	Underseaspace	Targets	Threats	Scoring & Feedback System	Infrastructure	Range Support	Small Arms Ranges	Collective Ranges	MOUT Facilities	Suite of Ranges
	Capability Attributes												
Strategic Attack	●	●			●	●	●		●		●		●
Counterair	●	●					●		●		●	●	●
Counterspace													
Counterland	●	●			●	●	●	●	●	●	●	●	●
Countersea													
Information Operations					●	●	●	●	●		●	●	●
Electronic Combat Support	●	●			●	●	●	●	●		●	●	●
Command and Control	●	●			●	●	●	●	●	●	●	●	●
Air Drop	●	●			●	●		●	●		●	●	●
Air Refueling		●						●			●		●
Spacelift													
Special Operations	●	●			●	●		●	●	●	●	●	●
Intelligence, Surveillance, and Reconnaissance		●			●	●	●	●	●		●	●	●

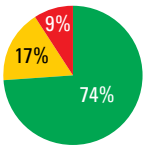
Legend: FMC ● PMC ● NMC ●

Encroachment Data

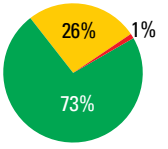
Mission Areas	Threatened and Endangered Species	Munitions Restrictions	Spectrum	Maritime Sustainability	Airspace	Air Quality	Noise Restrictions	Adjacent Land Use	Cultural Resources	Water Quality/Supply	Wetlands	Range Transients
	Encroachment Factors											
Strategic Attack	●	●	●		●	●	●	●	●	●	●	●
Counterair	●	●	●		●	●	●	●	●	●	●	●
Counterspace												
Counterland	●	●	●		●	●	●	●	●	●	●	●
Countersea												
Information Operations	●		●		●	●	●	●	●	●	●	●
Electronic Combat Support	●	●	●		●	●	●	●	●	●	●	●
Command and Control	●		●		●	●	●	●	●	●	●	●
Air Drop	●		●		●	●	●	●	●	●	●	●
Air Refueling	●		●		●	●	●	●	●	●	●	●
Spacelift												
Special Operations	●	●	●		●	●	●	●	●	●	●	●
Intelligence, Surveillance, and Reconnaissance	●		●		●	●	●	●	●	●	●	●

Legend: Minimal ● Moderate ● Severe ●

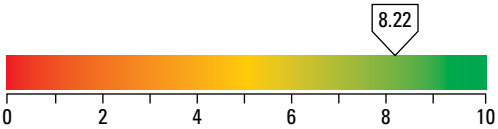
Summary Percent Distribution



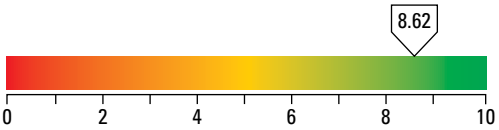
Summary Percent Distribution



Overall Capability Score



Overall Encroachment Score



Summary Observations

- Targets, Scoring and Feedback System, Threats, Range Support, MOUT Facilities
- Information Operations

Summary Observations

- T&E Species
- Munitions Restrictions, Air Space, Noise, Cultural Resources, Adjacent Land Use

Figure 3-15 Air Force Capability and Encroachment Assessment Detail (continued)

Air Force Range: Oklahoma

Capability Data

Mission Areas	Landspace	Airspace	Seaspace	Underseaspace	Targets	Threats	Scoring & Feedback System	Infrastructure	Range Support	Small Arms Ranges	Collective Ranges	MOUT Facilities	Suite of Ranges
Strategic Attack	PMC	FMC			PMC	PMC	PMC	PMC	PMC			PMC	PMC
Counterair	FMC	FMC			FMC	PMC	PMC	PMC	PMC			PMC	FMC
Counterspace	FMC	FMC			FMC	FMC	FMC	PMC	PMC			PMC	FMC
Counterland	PMC	PMC			PMC	PMC	PMC	PMC	PMC			PMC	PMC
Countersea													
Information Operations	FMC	FMC			FMC	FMC	FMC	PMC	PMC			PMC	FMC
Electronic Combat Support	PMC	FMC			FMC	FMC	FMC	PMC	PMC			PMC	FMC
Command and Control	PMC	FMC			FMC	FMC	FMC	PMC	PMC			PMC	FMC
Air Drop	PMC	PMC			PMC	FMC	FMC	PMC	PMC			PMC	PMC
Air Refueling	FMC	FMC			FMC	FMC	FMC	PMC	PMC			PMC	FMC
Spacelift	FMC	FMC			FMC	FMC	FMC	PMC	PMC			PMC	FMC
Special Operations	FMC	FMC			FMC	PMC	FMC	PMC	PMC			PMC	PMC
Intelligence, Surveillance, and Reconnaissance	FMC	FMC			FMC	FMC	FMC	PMC	PMC			PMC	FMC

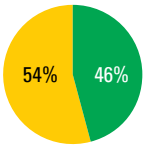
Legend: FMC, PMC, NMC

Encroachment Data

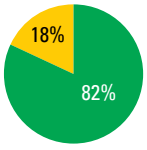
Mission Areas	Threatened and Endangered Species	Munitions Restrictions	Spectrum	Maritime Sustainability	Airspace	Air Quality	Noise Restrictions	Adjacent Land Use	Cultural Resources	Water Quality/Supply	Wetlands	Range Transients
Strategic Attack	PMC	PMC	FMC		PMC	FMC	FMC	PMC	FMC	FMC	PMC	FMC
Counterair	FMC	PMC	FMC		FMC	FMC	FMC	PMC	FMC	FMC	FMC	FMC
Counterspace	FMC	FMC	PMC		FMC	FMC	FMC	FMC	FMC	FMC	FMC	FMC
Counterland	PMC	PMC	FMC		PMC	FMC	FMC	PMC	FMC	FMC	PMC	FMC
Countersea												
Information Operations	FMC	FMC	FMC		PMC	FMC	FMC	PMC	FMC	FMC	FMC	FMC
Electronic Combat Support	FMC	FMC	PMC		FMC	FMC	FMC	PMC	FMC	FMC	FMC	FMC
Command and Control	FMC	FMC	FMC		FMC	FMC	FMC	FMC	FMC	FMC	FMC	FMC
Air Drop	PMC	PMC	FMC		PMC	FMC	FMC	PMC	FMC	FMC	PMC	FMC
Air Refueling	FMC	FMC	FMC		FMC	FMC	FMC	FMC	FMC	FMC	FMC	FMC
Spacelift	FMC	FMC	FMC		FMC	FMC	FMC	FMC	FMC	FMC	FMC	FMC
Special Operations	FMC	FMC	FMC		PMC	FMC	FMC	FMC	FMC	FMC	FMC	FMC
Intelligence, Surveillance, and Reconnaissance	PMC	FMC	FMC		FMC	FMC	FMC	FMC	FMC	FMC	FMC	FMC

Legend: Minimal, Moderate, Severe

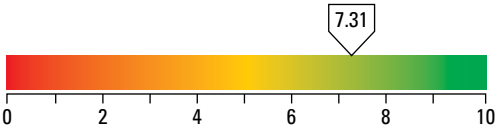
Summary Percent Distribution



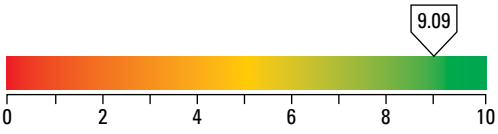
Summary Percent Distribution



Overall Capability Score



Overall Encroachment Score



Summary Observations

- Infrastructure, Range Support, MOUT Facilities, Landspace, Airspace, Targets, Threats, Scoring and Feedback System, Suite of Ranges

Summary Observations

- T&E Species, Munitions Restrictions, Spectrum, Airspace, Adjacent Land Use, Wetlands

Figure 3-15 Air Force Capability and Encroachment Assessment Detail (continued)

Air Force Range: Pilsung

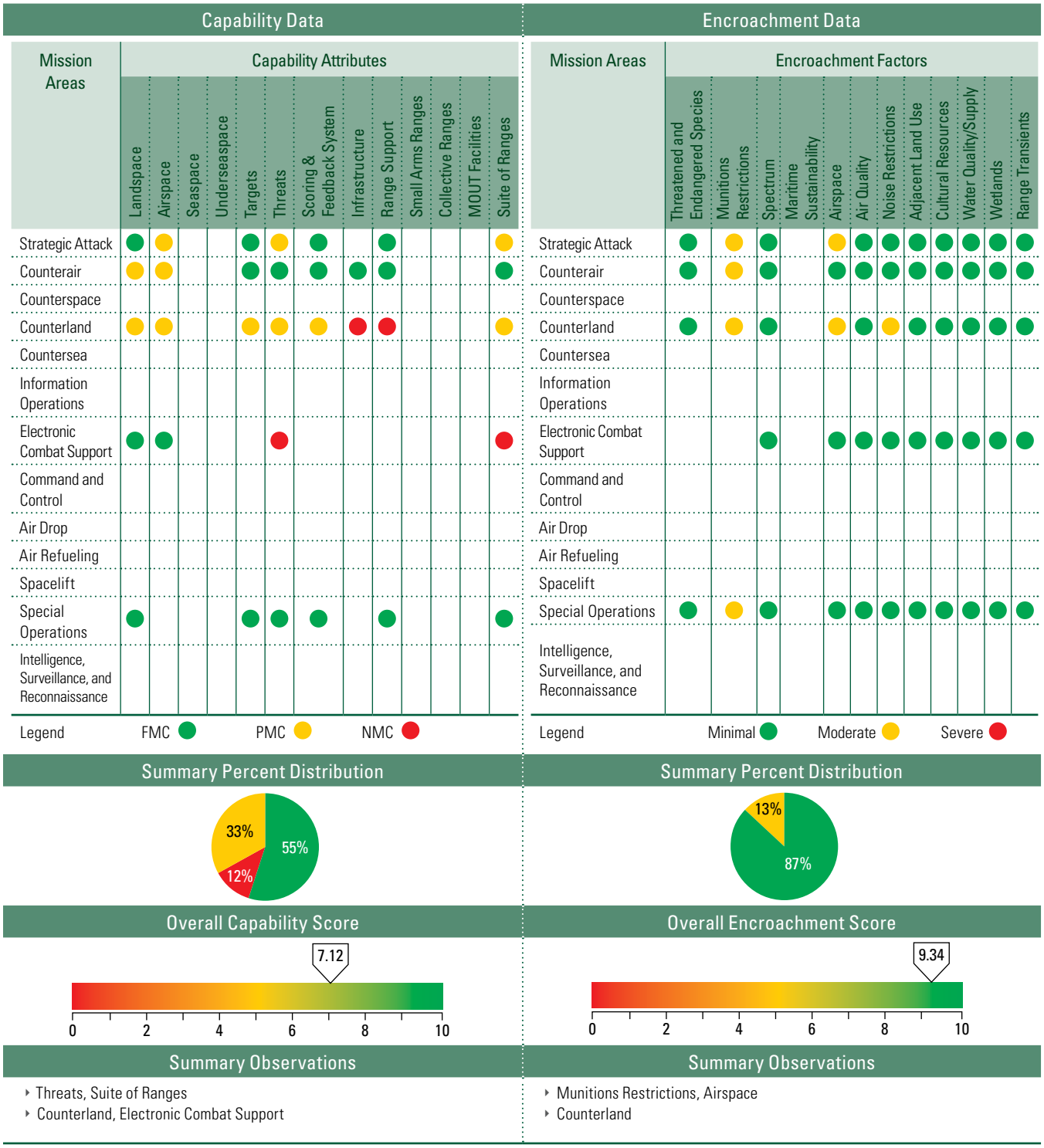


Figure 3-15 Air Force Capability and Encroachment Assessment Detail (continued)

Air Force Range: Poinsett

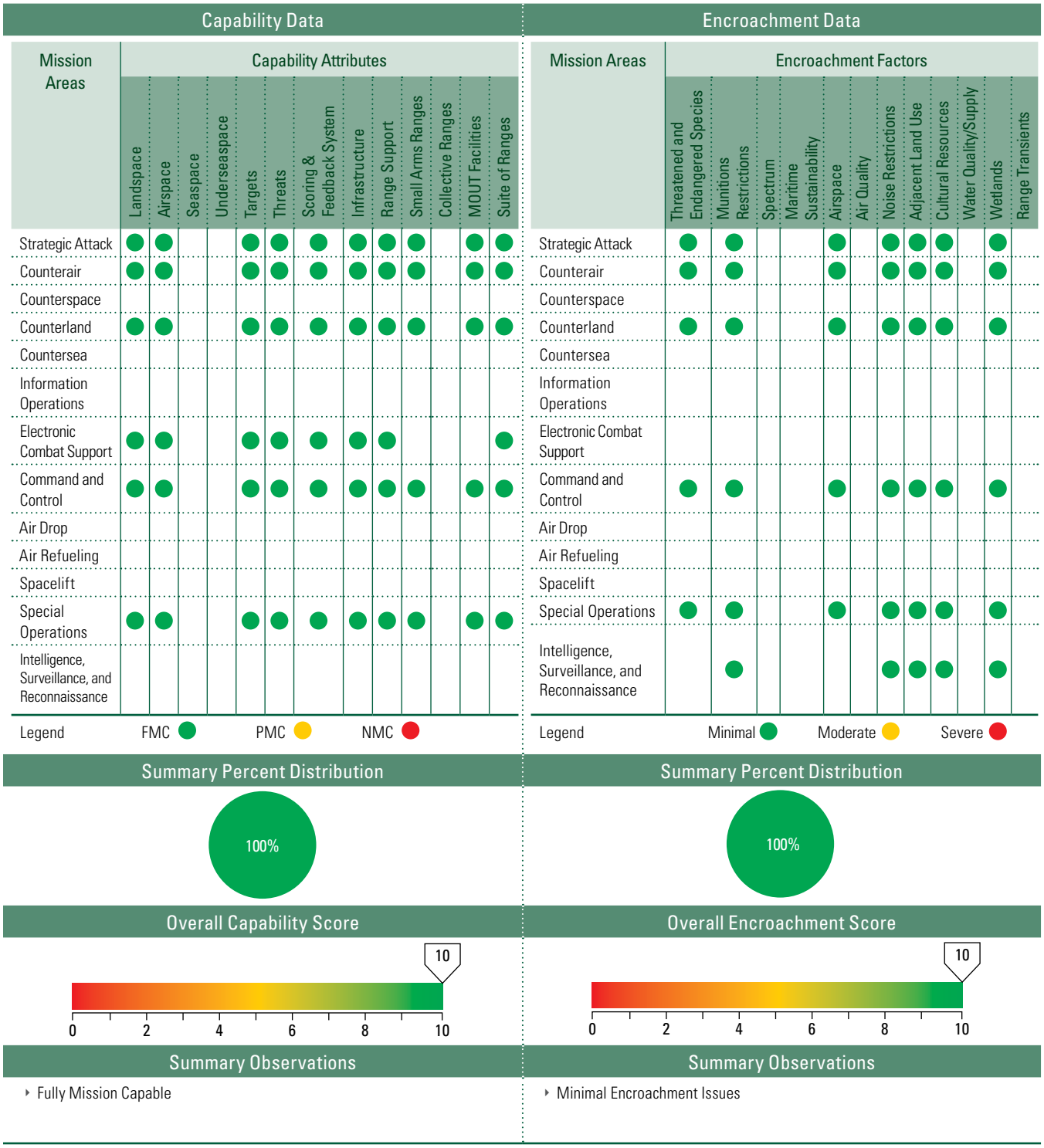


Figure 3-15 Air Force Capability and Encroachment Assessment Detail (continued)

Air Force Range: Polygone

Capability Data

Mission Areas	Landspace	Airspace	Seaspace	Underseaspace	Targets	Threats	Scoring & Feedback System	Infrastructure	Range Support	Small Arms Ranges	Collective Ranges	MOUT Facilities	Suite of Ranges
	Capability Attributes												
Strategic Attack	●	●			●	●	●	●	●				●
Counterair	●	●			●	●	●	●	●				●
Counterspace													
Counterland	●	●			●	●	●	●	●				●
Countersea													
Information Operations													
Electronic Combat Support	●	●			●	●	●	●	●				●
Command and Control	●	●			●	●	●	●	●				●
Air Drop													
Air Refueling													
Spacelift													
Special Operations	●	●			●	●	●	●	●				●
Intelligence, Surveillance, and Reconnaissance	●	●			●	●	●	●	●				●

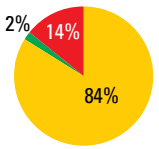
Legend: FMC ● PMC ● NMC ●

Encroachment Data

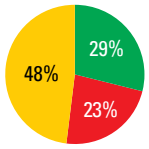
Mission Areas	Threatened and Endangered Species	Munitions Restrictions	Spectrum	Maritime Sustainability	Airspace	Air Quality	Noise Restrictions	Adjacent Land Use	Cultural Resources	Water Quality/Supply	Wetlands	Range Transients
	Encroachment Factors											
Strategic Attack	●	●	●		●	●	●	●				●
Counterair	●	●	●		●	●	●	●				●
Counterspace												
Counterland	●	●	●		●	●	●	●				●
Countersea												
Information Operations												
Electronic Combat Support	●	●	●		●	●	●	●				●
Command and Control	●	●	●		●	●	●	●				●
Air Drop												
Air Refueling												
Spacelift												
Special Operations	●	●	●		●	●	●	●				●
Intelligence, Surveillance, and Reconnaissance	●	●	●		●	●	●	●				●

Legend: Minimal ● Moderate ● Severe ●

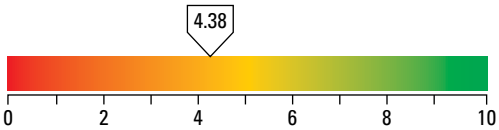
Summary Percent Distribution



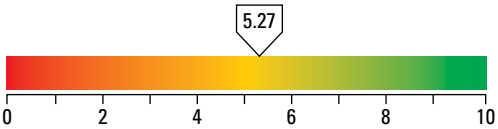
Summary Percent Distribution



Overall Capability Score



Overall Encroachment Score



Summary Observations

- Targets, Landspace, and Range Support
- Strategic Attack and Counterland

Summary Observations

- Munitions Restrictions, Spectrum, Range Transients, Airspace, Noise Restrictions

Figure 3-15 Air Force Capability and Encroachment Assessment Detail (continued)

Air Force Range: Razorback

Capability Data

Mission Areas	Landspace	Airspace	Seaspace	Underseaspace	Targets	Threats	Scoring & Feedback System	Infrastructure	Range Support	Small Arms Ranges	Collective Ranges	MOUT Facilities	Suite of Ranges
Strategic Attack	FMC	FMC			FMC	FMC	FMC	FMC	FMC			FMC	FMC
Counterair	FMC	FMC			FMC	FMC	FMC	FMC	FMC			FMC	FMC
Counterspace													
Counterland	FMC	FMC			FMC	FMC	FMC	FMC	FMC	FMC	FMC	FMC	FMC
Countersea													
Information Operations	FMC	FMC				FMC		FMC	FMC				FMC
Electronic Combat Support	FMC	FMC			FMC	FMC	FMC	FMC	FMC				FMC
Command and Control	FMC	FMC			FMC	FMC		FMC	FMC				FMC
Air Drop	FMC	FMC			FMC	FMC	FMC	FMC	FMC		FMC	FMC	FMC
Air Refueling		NMC				PMC							
Spacelift													
Special Operations	FMC	FMC			FMC	FMC	FMC	FMC	FMC	FMC	FMC	FMC	FMC
Intelligence, Surveillance, and Reconnaissance	FMC	FMC			FMC	FMC	FMC	FMC	FMC		FMC	FMC	FMC

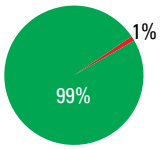
Legend: FMC PMC NMC

Encroachment Data

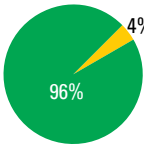
Mission Areas	Threatened and Endangered Species	Munitions Restrictions	Spectrum	Maritime Sustainability	Airspace	Air Quality	Noise Restrictions	Adjacent Land Use	Cultural Resources	Water Quality/Supply	Wetlands	Range Transients
Strategic Attack	Minimal	Moderate	Minimal		Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal
Counterair	Minimal	Moderate	Minimal		Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal
Counterspace												
Counterland	Minimal	Moderate	Minimal		Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal
Countersea												
Information Operations	Minimal	Minimal	Minimal						Minimal		Minimal	Minimal
Electronic Combat Support	Minimal	Minimal	Minimal		Minimal		Minimal	Minimal	Minimal	Minimal	Minimal	Minimal
Command and Control	Minimal	Minimal	Minimal		Minimal		Minimal	Minimal	Minimal	Minimal	Minimal	Minimal
Air Drop	Minimal	Minimal	Minimal		Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal
Air Refueling												
Spacelift												
Special Operations	Minimal	Moderate	Minimal		Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal
Intelligence, Surveillance, and Reconnaissance	Minimal	Minimal	Minimal		Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal	Minimal

Legend: Minimal Moderate Severe

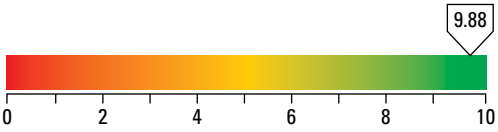
Summary Percent Distribution



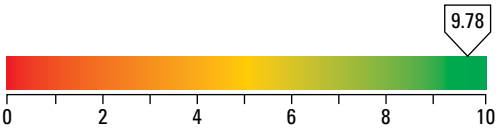
Summary Percent Distribution



Overall Capability Score



Overall Encroachment Score



Summary Observations

- Airspace
- Air Refueling

Summary Observations

- Munitions Restrictions
- Strategic Attack, Counterair, Counterland

Figure 3-15 Air Force Capability and Encroachment Assessment Detail (continued)

Air Force Range: Shelby Gulfport

Capability Data

Mission Areas	Landspace	Airspace	Seaspace	Underseaspace	Targets	Threats	Scoring & Feedback System	Infrastructure	Range Support	Small Arms Ranges	Collective Ranges	MOUT Facilities	Suite of Ranges
	Capability Attributes												
Strategic Attack	●	●			●	●	●	●	●		●	●	●
Counterair	●	●			●	●	●	●	●		●		●
Counterspace													
Counterland	●	●			●	●	●	●	●	●	●	●	●
Countersea													
Information Operations	●	●						●	●		●		●
Electronic Combat Support	●	●				●		●	●	●	●		
Command and Control	●	●			●	●	●	●	●	●	●	●	
Air Drop	●	●			●	●	●	●	●		●		●
Air Refueling		●							●				
Spacelift													
Special Operations	●	●			●	●	●	●	●	●	●	●	●
Intelligence, Surveillance, and Reconnaissance	●	●			●	●		●	●		●	●	●

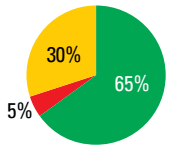
Legend: FMC ● PMC ● NMC ●

Encroachment Data

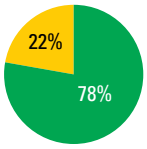
Mission Areas	Threatened and Endangered Species	Munitions Restrictions	Spectrum	Maritime Sustainability	Airspace	Air Quality	Noise Restrictions	Adjacent Land Use	Cultural Resources	Water Quality/Supply	Wetlands	Range Transients
	Encroachment Factors											
Strategic Attack	●	●	●		●	●	●	●	●	●	●	●
Counterair	●	●	●		●	●	●	●	●	●	●	●
Counterspace												
Counterland	●	●	●		●	●	●	●	●	●	●	●
Countersea												
Information Operations	●	●	●		●	●	●	●	●	●	●	●
Electronic Combat Support	●	●	●		●	●	●	●	●	●	●	●
Command and Control	●	●	●		●	●	●	●	●	●	●	●
Air Drop	●	●	●		●	●	●	●	●	●	●	●
Air Refueling	●		●		●	●	●	●	●	●	●	●
Spacelift												
Special Operations	●	●	●		●	●	●	●	●	●	●	●
Intelligence, Surveillance, and Reconnaissance	●	●	●		●	●	●	●	●	●	●	●

Legend: Minimal ● Moderate ● Severe ●

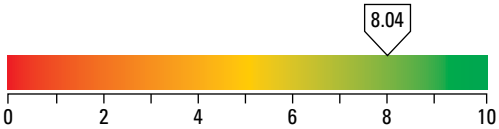
Summary Percent Distribution



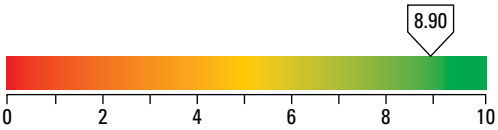
Summary Percent Distribution



Overall Capability Score



Overall Encroachment Score



Summary Observations

- Small Arms Range, Range Support, Threats, MOUT Facilities, Targets
- Counterland and Special Operations

Summary Observations

- Airspace, Munitions Restrictions, T&E Species, Noise Reduction, Adjacent Land Use
- Strategic Attack, Counterland

Figure 3-15 Air Force Capability and Encroachment Assessment Detail (continued)

Air Force Range: Siegenburg

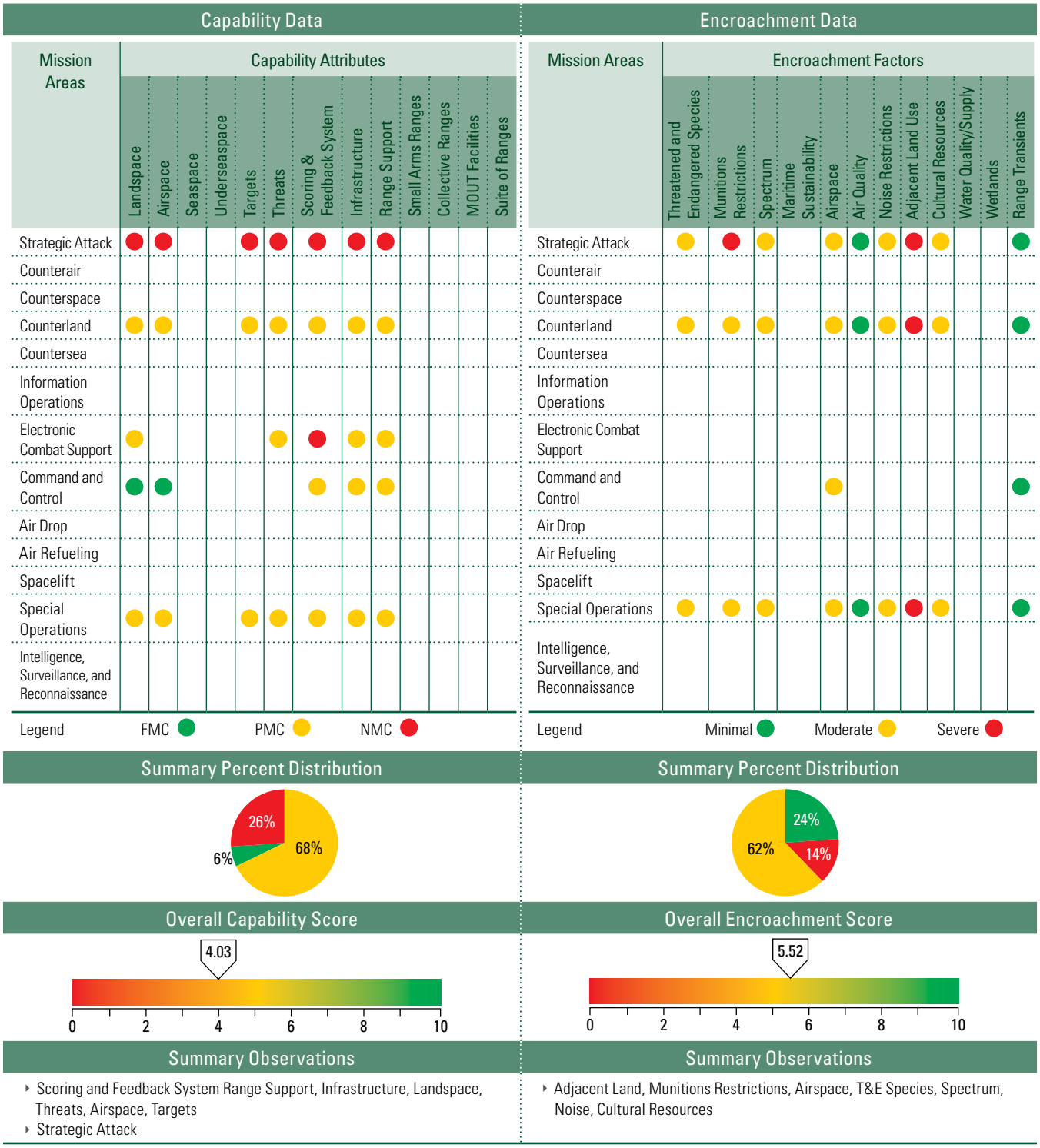


Figure 3-15 Air Force Capability and Encroachment Assessment Detail (continued)

Air Force Range: Smokey Hill

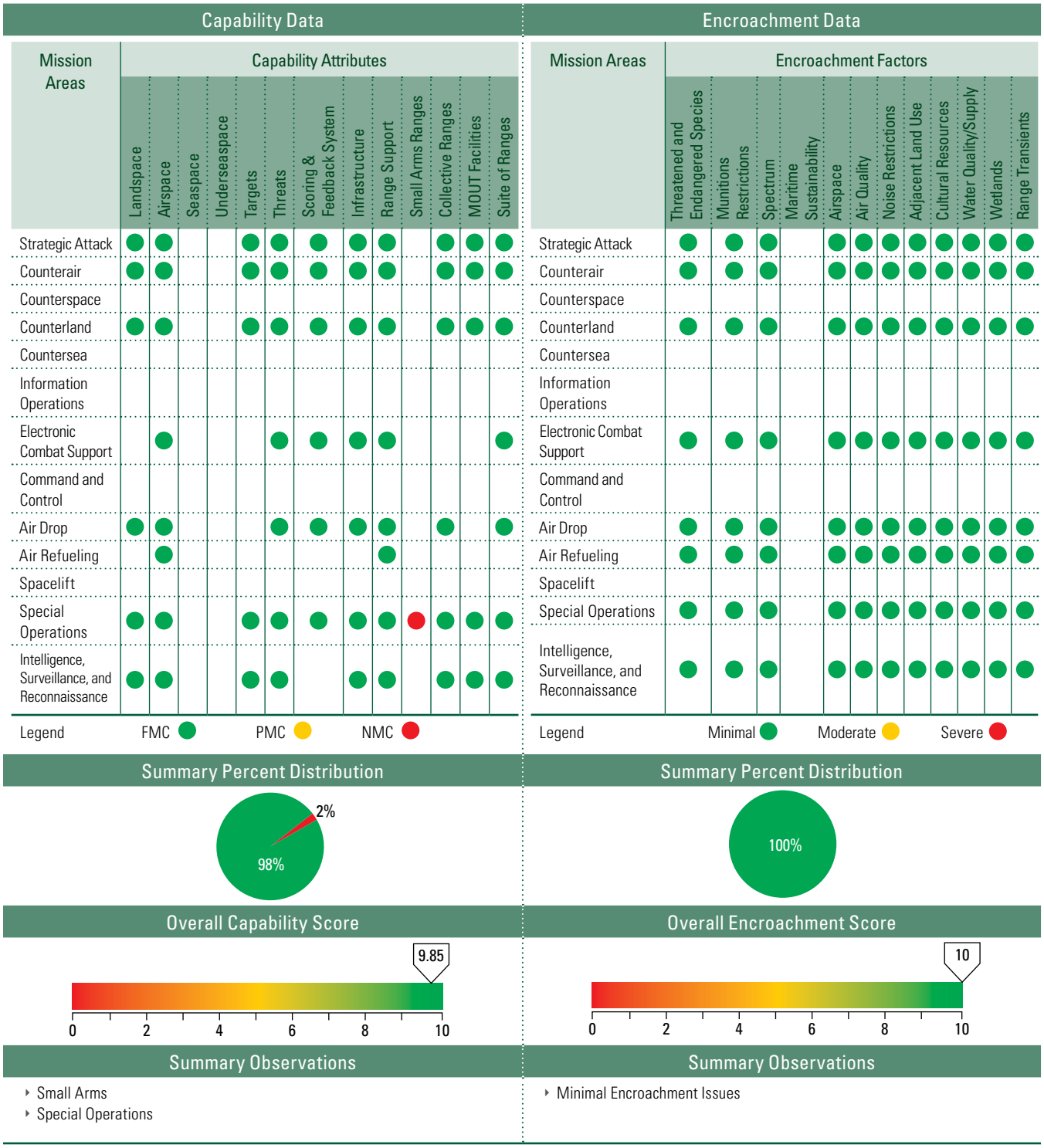


Figure 3-15 Air Force Capability and Encroachment Assessment Detail (continued)

Air Force Range: Tori Shima

Capability Data

Mission Areas	Landspace	Airspace	Seaspace	Underseaspace	Targets	Threats	Scoring & Feedback System	Infrastructure	Range Support	Small Arms Ranges	Collective Ranges	MOUT Facilities	Suite of Ranges
	Capability Attributes												
Strategic Attack	●	●	●		●	●	●	●	●			●	●
Counterair													
Counterspace													
Counterland	●	●	●		●	●	●	●	●			●	●
Countersea													
Information Operations													
Electronic Combat Support													
Command and Control													
Air Drop													
Air Refueling													
Spacelift													
Special Operations													
Intelligence, Surveillance, and Reconnaissance													

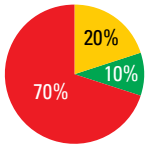
Legend: FMC ● PMC ● NMC ●

Encroachment Data

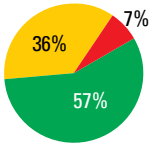
Mission Areas	Threatened and Endangered Species	Munitions Restrictions	Spectrum	Maritime Sustainability	Airspace	Air Quality	Noise Restrictions	Adjacent Land Use	Cultural Resources	Water Quality/Supply	Wetlands	Range Transients
	Encroachment Factors											
Strategic Attack		●	●		●		●	●	●			●
Counterair												
Counterspace												
Counterland		●	●		●		●	●	●			●
Countersea												
Information Operations												
Electronic Combat Support												
Command and Control												
Air Drop												
Air Refueling												
Spacelift												
Special Operations												
Intelligence, Surveillance, and Reconnaissance												

Legend: Minimal ● Moderate ● Severe ●

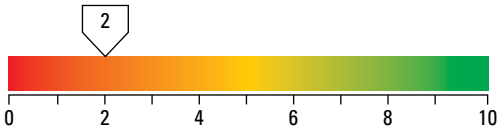
Summary Percent Distribution



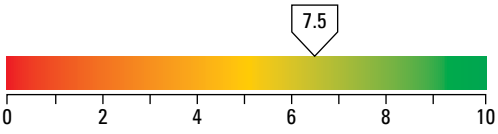
Summary Percent Distribution



Overall Capability Score



Overall Encroachment Score



Summary Observations

- All Attributes Except Seaspace
- Strategic Attack and Counterland

Summary Observations

- Airspace, Munitions Restrictions, Cultural Restrictions

Figure 3-15 Air Force Capability and Encroachment Assessment Detail (continued)

Air Force Range: Townsend

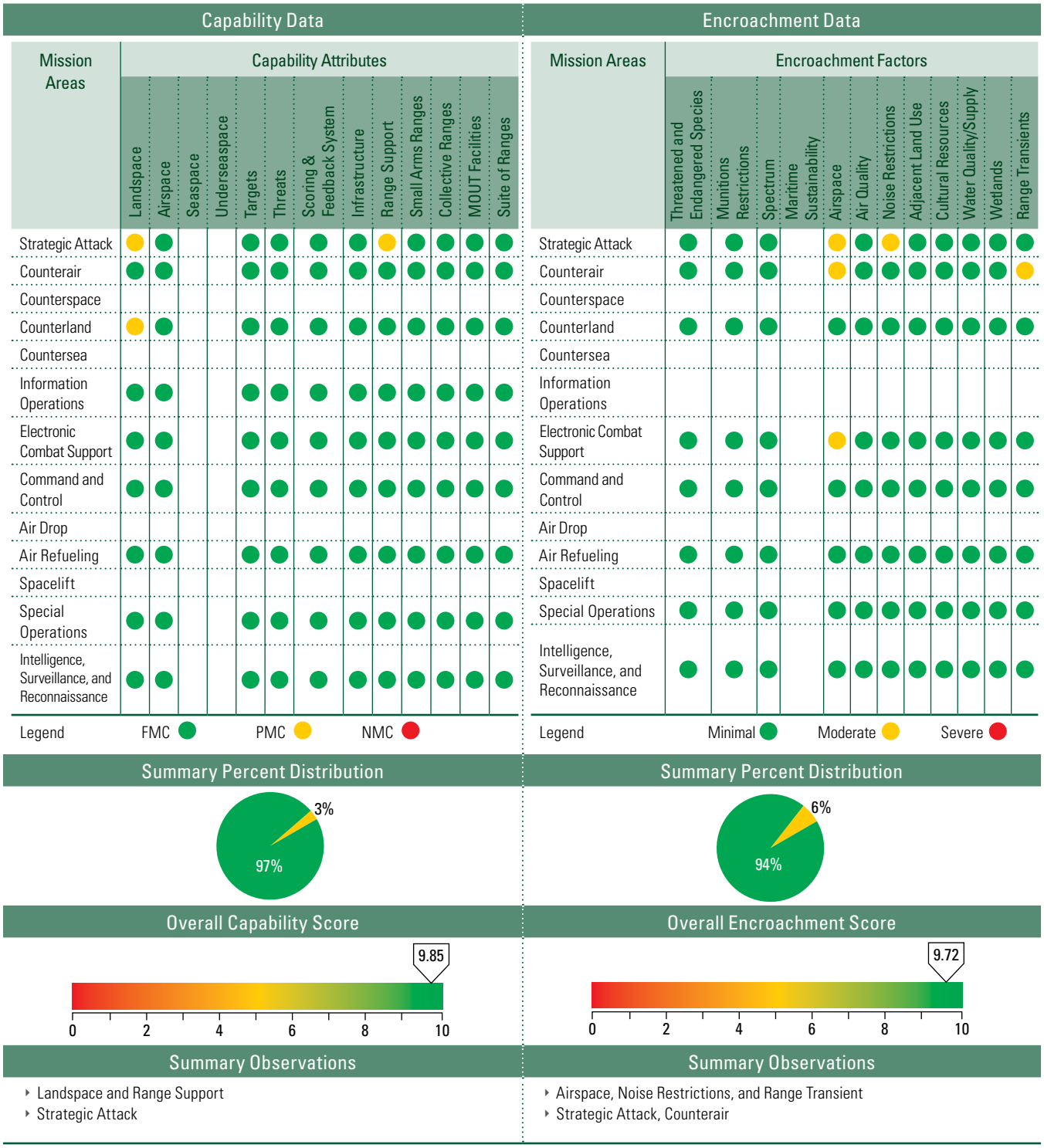


Figure 3-15 Air Force Capability and Encroachment Assessment Detail (continued)

Air Force Range: Utah Test and Training Range

Capability Data

Mission Areas	Landspace	Airspace	Seaspace	Underseaspace	Targets	Threats	Scoring & Feedback System	Infrastructure	Range Support	Small Arms Ranges	Collective Ranges	MOUT Facilities	Suite of Ranges
	Capability Attributes												
Strategic Attack	●	●			●	●	●	●	●	●	●	●	●
Counterair	●	●			●	●	●	●	●	●	●	●	●
Counterspace													
Counterland	●	●			●	●	●	●	●	●	●	●	●
Countersea													
Information Operations													
Electronic Combat Support	●	●			●	●	●	●	●	●	●	●	●
Command and Control													
Air Drop	●	●			●	●	●	●	●	●	●	●	●
Air Refueling	●	●			●	●	●	●	●	●	●	●	●
Spacelift													
Special Operations	●	●			●	●	●	●	●	●	●	●	●
Intelligence, Surveillance, and Reconnaissance	●	●			●	●	●	●	●	●	●	●	●

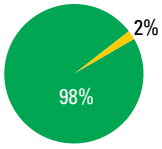
Legend: FMC ● PMC ● NMC ●

Encroachment Data

Mission Areas	Threatened and Endangered Species	Munitions Restrictions	Spectrum	Maritime Sustainability	Airspace	Air Quality	Noise Restrictions	Adjacent Land Use	Cultural Resources	Water Quality/Supply	Wetlands	Range Transients
	Encroachment Factors											
Strategic Attack	●	●	●		●	●	●	●	●	●	●	●
Counterair	●	●	●		●	●	●	●	●	●	●	●
Counterspace												
Counterland	●	●	●		●	●	●	●	●	●	●	●
Countersea												
Information Operations												
Electronic Combat Support	●	●	●		●	●	●	●	●	●	●	●
Command and Control												
Air Drop	●	●	●		●	●	●	●	●	●	●	●
Air Refueling	●	●	●		●	●	●	●	●	●	●	●
Spacelift												
Special Operations	●	●	●		●	●	●	●	●	●	●	●
Intelligence, Surveillance, and Reconnaissance	●	●	●		●	●	●	●	●	●	●	●

Legend: Minimal ● Moderate ● Severe ●

Summary Percent Distribution



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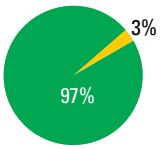
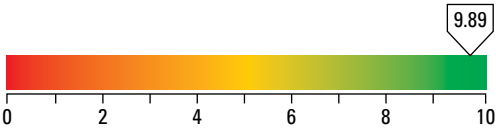
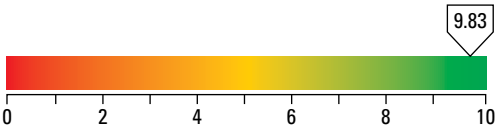


Overall Capability Score



Overall Encroachment Score



Summary Observations

- Airspace
- Strategic Attack, Electronic Combat Support

Summary Observations

- Cultural Resources
- Counterland, Air Drop, Special Operations

Figure 3-15 Air Force Capability and Encroachment Assessment Detail (continued)

Air Force Range: Yukon

Capability Data

Mission Areas	Landspace	Airspace	Seaspace	Underseaspace	Targets	Threats	Scoring & Feedback System	Infrastructure	Range Support	Small Arms Ranges	Collective Ranges	MOUT Facilities	Suite of Ranges
Strategic Attack	PMC	PMC			PMC	FMC	PMC	FMC	FMC			FMC	PMC
Counterair	FMC	FMC			FMC	FMC	PMC	FMC	FMC			FMC	FMC
Counterspace	FMC	FMC			FMC	FMC	FMC	FMC	FMC			FMC	FMC
Counterland	PMC	PMC			PMC	FMC	PMC	FMC	FMC			FMC	PMC
Countersea													
Information Operations	FMC	FMC			FMC	FMC	FMC	FMC	FMC			FMC	FMC
Electronic Combat Support	PMC	FMC			FMC	FMC	FMC	FMC	FMC			FMC	FMC
Command and Control	PMC	FMC			FMC	FMC	FMC	FMC	FMC			FMC	FMC
Air Drop	PMC	PMC			PMC	FMC	FMC	FMC	FMC			FMC	PMC
Air Refueling	FMC	FMC			FMC	FMC	FMC	FMC	FMC			FMC	FMC
Spacelift	FMC	FMC			FMC	FMC	FMC	FMC	FMC			FMC	FMC
Special Operations	FMC	FMC			FMC	FMC	FMC	FMC	FMC			FMC	PMC
Intelligence, Surveillance, and Reconnaissance	FMC	FMC			FMC	FMC	FMC	FMC	FMC			FMC	FMC

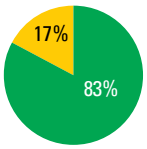
Legend: FMC, PMC, NMC

Encroachment Data

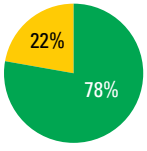
Mission Areas	Threatened and Endangered Species	Munitions Restrictions	Spectrum	Maritime Sustainability	Airspace	Air Quality	Noise Restrictions	Adjacent Land Use	Cultural Resources	Water Quality/Supply	Wetlands	Range Transients
Strategic Attack	PMC	PMC	FMC		PMC	FMC	PMC	PMC	FMC	FMC	PMC	FMC
Counterair	FMC	PMC	FMC		PMC	FMC	FMC	PMC	FMC	FMC	FMC	FMC
Counterspace	FMC	FMC	PMC		FMC	FMC	FMC	FMC	FMC	FMC	FMC	FMC
Counterland	PMC	PMC	FMC		PMC	FMC	PMC	PMC	FMC	FMC	PMC	FMC
Countersea												
Information Operations	FMC	FMC	FMC		PMC	FMC	FMC	PMC	FMC	FMC	FMC	FMC
Electronic Combat Support	FMC	FMC	PMC		PMC	FMC	PMC	PMC	FMC	FMC	FMC	FMC
Command and Control	FMC	FMC	FMC		FMC	FMC	FMC	FMC	FMC	FMC	FMC	FMC
Air Drop	PMC	PMC	FMC		PMC	FMC	FMC	PMC	FMC	FMC	PMC	FMC
Air Refueling	FMC	FMC	FMC		FMC	FMC	FMC	FMC	FMC	FMC	FMC	FMC
Spacelift	FMC	FMC	FMC		FMC	FMC	FMC	FMC	FMC	FMC	FMC	FMC
Special Operations	FMC	FMC	FMC		PMC	FMC	FMC	FMC	FMC	FMC	FMC	FMC
Intelligence, Surveillance, and Reconnaissance	PMC	FMC	FMC		FMC	FMC	FMC	FMC	FMC	FMC	FMC	FMC

Legend: Minimal, Moderate, Severe

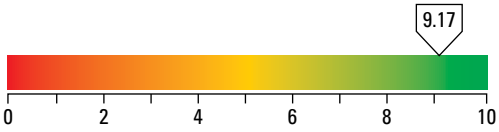
Summary Percent Distribution



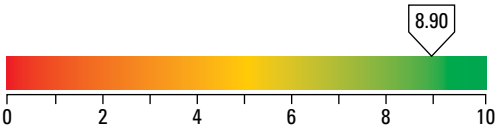
Summary Percent Distribution



Overall Capability Score



Overall Encroachment Score



Summary Observations

- Landspace, Suite of Ranges, Airspace, Targets, Scoring and Feedback System
- Strategic Attack and Counterland

Summary Observations

- Airspace, Adjacent Land Use, T&E Species, Munitions Restrictions, Noise, and Spectrum

Air Force Training Range Summary Capability and Encroachment Assessment Results

The results of the Air Force's overall range capability and encroachment assessments, based on data received from 35 Ranges/Range Complex are presented side-by-side in Table 3-12. Specific consideration of the relationship between encroachment and capability is an emerging concept that will be further developed in future reports.

Table 3-12 Air Force Range Capability and Encroachment Assessment Comparison

Range Name	Capability Score (ranked from lowest to highest)	Encroachment Score
Adirondack	7.77	8.96
Airburst	8.28	8.86
Atterbury	8.98	8.23
Avon Park	9.62	9.32
Blair Lakes	7.31	9.09
Barry M. Goldwater Range–East Complex	8.77	9.13
Bollen	8.90	9.43

Table 3-12 Air Force Range Capability and Encroachment Assessment Comparison (continued)

Range Name	Capability Score (ranked from lowest to highest)	Encroachment Score
Cannon	5.17	9.05
Claiborne	6.56	10
Dare County	9.95	9.95
Edwards (Test Range)	8.79	8.43
Edwards (Training Range)	7.02	8.43
Eglin	8.5	8.52
Falcon	6.88	9.77
Grand Bay	9.58	9.49
Grayling	9.39	9.49

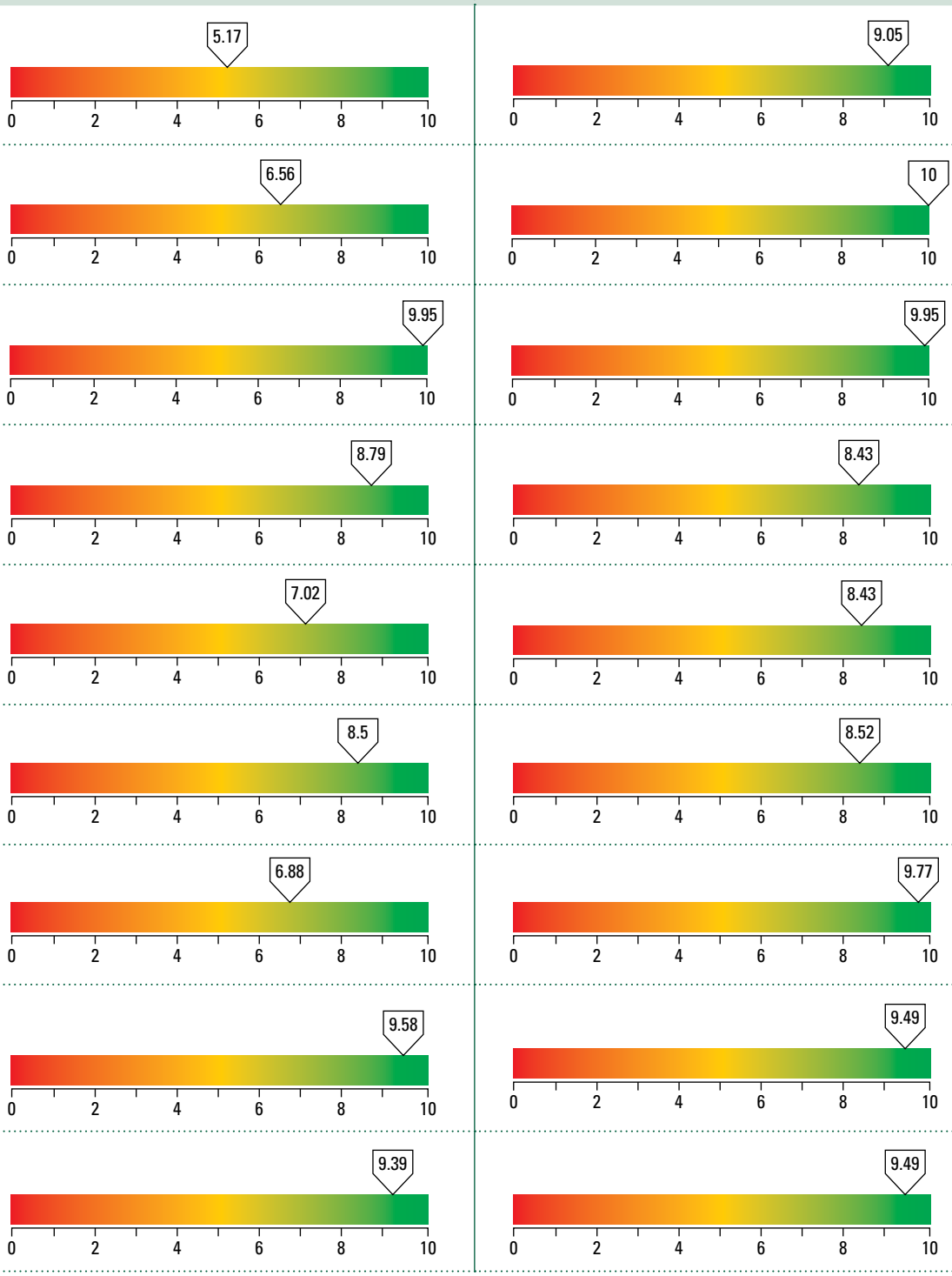


Table 3-12 Air Force Range Capability and Encroachment Assessment Comparison (continued)

Range Name	Capability Score (ranked from lowest to highest)	Encroachment Score
Hardwood	9.17	8.99
Holloman (Oscura, Red Rio and Centennial)	8.04	8.42
Jefferson	8.75	8.66
McMullen	8.42	8.92
Melrose	9.05	9.32
Mountain Home	10	9.89
Nevada Test and Training Range (NTTR)	8.22	8.62
Oklahoma	7.31	9.09
Pilsung	7.12	9.34

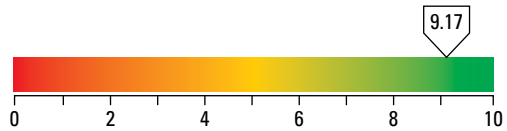
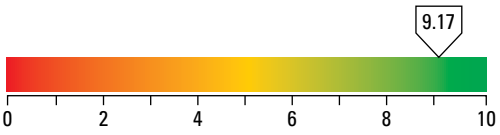
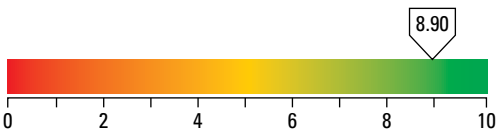


Table 3-12 Air Force Range Capability and Encroachment Assessment Comparison (continued)

Range Name	Capability Score (ranked from lowest to highest)	Encroachment Score
Poinsett	10	10
Polygone	4.38	5.27
Razorback	9.88	9.78
Shelby Gulfport	8.04	8.90
Siegenburg	4.03	5.52
Smokey Hill	9.85	10
Tori Shima	2	7.5
Townsend	9.85	9.72
Utah Test and Training Range	9.89	9.83

Table 3-12 Air Force Range Capability and Encroachment Assessment Comparison (continued)

Range Name	Capability Score (ranked from lowest to highest)	Encroachment Score
Yukon		

3.3 Summary and Conclusion

With the establishment of this baseline data, it is expected that DoD and Services will be able to systematically evaluate the status of training ranges in a consistent and reliable manner that is comparable over time to enhance informed decision making. Decision makers, planners, and analysts can use the capabilities and encroachment data to develop strategies to mitigate range and training area shortfalls, bring required capabilities to standards, and address negative impacts from encroachment. These benefits will aid in improving range sustainment plans and investment priorities.

The ability to see data in a common framework across Service mission areas will allow the Office of the Secretary of Defense (OSD) and the Services to analyze range data in a number of ways, at various levels, which will aid in the identification of trends and the assessment of the sustainability of ranges. The DoD will continue to provide necessary guidance to improve assessment methods, data quality, and reliability, and exercise its oversight responsibilities to ensure ranges and operational areas meet the Department's training requirements.

4 Department of Defense's Comprehensive Training Range Sustainment Plan

NDAA Section 366(a)(1) requires DoD to develop a comprehensive training range sustainment plan. In response, DoD has established a comprehensive range planning and management program under its SRI.

4.1 Management Structure

The DoD SRI provides a flexible and adaptive planning framework that guides continuing, cooperative, and coordinated range sustainment efforts between DoD and Services, as well as interaction with other government agencies and non-governmental organization (NGO) stakeholders beyond installation boundaries.

The SRI is characterized by an array of policy, organizational, programming, outreach, legislative, and related efforts to address near-term training requirements and foster long-term range sustainability. This broad-based framework supports:

- Individual and joint range requirements and needs of DoD and the Services
- Identification of Service-specific and DoD-wide encroachment and range sustainability issues
- Evaluation of the availability, accessibility, and usability of existing range resources
- Development of overarching program goals, articulation of the actions and activities necessary to achieve them, and the establishment of milestones to validate progress
- Initiation of program legislative, regulatory, and outreach activities as required

4.1.1 Department of Defense

The Office of the Under Secretary of Defense for Personnel and Readiness (OUSD [P&R]) has lead responsibility for developing and overseeing implementation of DoD's comprehensive training range sustainment plan. To ensure consideration of the full spectrum of readiness issues, OUSD(P&R) works with DoD Senior Readiness Oversight Council (SROC). The SROC is the decision-making body and advisory board for matters pertaining to readiness. Its responsibilities include reviewing range sustainment policies and issues, overseeing readiness-related activities, providing recommendations to the Secretary of Defense on readiness policy matters, and providing reports on current and projected readiness issues.[7]

The Sustainable Ranges Integrated Product Team (IPT) reports to the SROC on range sustainment issues. This IPT operates on two levels. An Overarching Integrated Product Team (OIPT) acts as the coordination forum for the development of range sustainment strategies. A Working Integrated Product Team (WIPT), co-chaired by the Office of the Deputy Under Secretary of Defense for Installations and Environment (DUSD [I&E]), and Office of the Director, Operational Test and Evaluation (DOT&E), meets regularly and reports to the OIPT. Both the OIPT and the WIPT work collaboratively with other DoD and Service organizations on range sustainability issues.

In 2005, DoD Sustainable Ranges WIPT established a set of shared goals, actions, and milestones which guide preliminary range sustainability activities through FY2011. This common

7 Department of Defense Directive 5149.02, Senior Readiness Oversight Council, 23 July 2002.

framework of goals and milestones enables DoD and the Services to make meaningful comparisons and measurements of past performance and progress towards achieving near and long-term objectives. In developing DoD-wide framework, programmatic guidance and DoD Directives (DoDD) (*e.g.*, DoDD 3200.15, *Sustainment of Ranges and Operating Areas*) were used to identify common goals and milestones across the Services.[8] Section 4.2 identifies these overarching program goals.

4.1.2 The Military Services

While the establishment of fundamental training policy and oversight of DoD-wide training range sustainment activities is the responsibility of OUSD(P&R), the Services implement most SRI initiatives. Each Service has one or more headquarters-level offices responsible for overseeing the development and operational implementation of Service-specific range sustainment policies and programs. These offices coordinate SRI activities with appropriate stakeholder organizations within their Service to ensure the full range of operational, training and readiness, infrastructure, environmental, encroachment, and fiscal considerations are integrated into programs. Section 4.3 identifies the responsible Service offices.

4.2 Goals, Actions, and Milestones

Goals have been established for four critical range sustainment areas: Modernization & Investment, Operations & Maintenance, Environment, and Encroachment. For each are, actions necessary to achieve the supporting goals and milestones have been identified for the FY2005–FY2011 timeframe. Programmatic goals and milestones are reviewed and updated as necessary to ensure the SRI continues to effectively address training requirements, as well as constraints or limitations on the use of ranges that may arise in the future. DoD provides the following updates to its goals, actions, and milestones which address NDAA Sections 366(a)(3)(A) and (B).

4.2.1 Modernization and Investment

Goal—Resource for standardized land management structure and operations that mitigate encroachment and provide for range sustainment. Maximize and sustain the availability of military range infrastructure and land assets.

Table 4-1 Modernization and Investment Actions and Milestones

2005 Actions and Milestones	Progress to Date
OSD and U.S. Joint Forces Command (USJFCOM) establish global JNTC infrastructure requirements. As part of the JNTC concept, sites and systems will be required to create a realistic joint environment for training/mission rehearsals of joint tasks. These sites and systems will require certification of their capability to support their joint training role. Certification of sites and systems will be event independent and ensure the technical infrastructure is capable of supporting the selected event with the evolving standards and architectures.	Navy The Southern California Offshore Range and the Virginia Capes (VACAPES) range capability. Accreditation of Joint Task Force Exercises (JTFEX) on the east and west coasts is complete. Update—The Naval Strike and Air Warfare Center has been certified and accredited by USJFCOM. Marine Corps The Marine Air Warfare Training Squadron One at Marine Corps Air Station, Yuma, Arizona has been certified and accredited. Update—The accreditation/certification process for the Marine Corps Air Ground Combat Center and the Marine Corps Mountain Warfare Training Center was initiated in 2007.
OSD, USJFCOM, and Services establish JNTC technical standards to ensure future interoperability between JNTC systems. Office of the Deputy Under Secretary of Defense (Readiness) has initiated an effort to develop a set of Open Net-Centric Interoperability Standards for Test and Training (ONISTT). This effort has laid the standards framework and is currently pursuing the air-to-air piece. In the meantime, a Test and Training Enabling Architecture is being pursued as a middleware solution to enable range interoperability for existing systems. A DoD Training Community of Interest has been chartered to, among other things, be the umbrella point of contact for Service Oriented Architecture efforts involving the Training Community.	Navy Navy is supporting ONISTT goals and objectives to develop a net-centric approach to interoperability and standards through the funded Tactical Combat Training System (TCTS), which is interoperable with the U.S. Air Force (USAF) P5 Combat Training System. TCTS is the training instrumentation system used to establish the ONISTT use-case. Update—Navy continues actively supporting achievement of ONISTT goals and objectives. Marine Corps Conducted JNTC-sponsored Research, Development, and Testing and Evaluation (RDT&E) on the compatibility of legacy range systems with the Test and Training Enabling Architecture. Update—Continued conducting JNTC-sponsored RDT&E on certain legacy range systems to ensure compatibility with the Test and Training Enabling Architecture.

8 *Guidance for Fiscal Years 2006–2011 Sustainable Ranges Programs*, memorandum from the Under Secretary of Defense for Personnel and Readiness, 26 June 2003.

Table 4-1 Modernization and Investment Actions and Milestones (continued)

2005 Actions and Milestones	Progress to Date
Services continue to develop and annually update Service Range Complex Plans. Although at different stages of maturity, all the Services are actively working on development and implementation of standardized plans.	Navy Navy previously completed 12 out of 16 RCMPs. Update—All 16 Navy RCMPs are complete. The first RCMP update is scheduled to begin in 2009. Army Army developed a standardized, automated RCMP tool. The first format test was completed in 2006. Update—Army updated the RCMP tool based on lessons learned and the tool was fielded in January 2008. Marine Corps Marine Corps previously reported it was working towards completion of its sixth RCMP with two additional RCMPs awaiting funding. Update—RCMPs were completed for MCB Camp Lejeune and MCAS Cherry Point. RCMPs are also underway for MCB Hawaii, Marine Corps Air Ground Combat Center (MCAGCC) Twentynine Palms, the Bob Stump Training Range Complex, and MCAS Yuma. An additional RCMP is in the initial stage for MCB Camp Pendleton; RCMPs for MCB Camp Butler, Okinawa, and MCB Quantico are pending.
Services identify and document management processes for determining range requirements.	Navy Navy has established a Range Sustainment Program and made organizational changes to better assess and manage Navy ranges. Update—Navy is continuing to examine its range management practices. Army The Army Range and Training Land Program Range Modernization Requirements process is outlined in Army Regulation (AR) 350-19, Army Sustainable Range Program. Update—Army updated its Range Requirements Module to automate the identification and calculation of range requirements for installations. Marine Corps Marine Corps previously reported the 2006 creation of the Marine Corps Training Ranges RCD. The RCD defines required capabilities that will allow Marine Corps training ranges to support the training for mission essential taskings over a 10-year planning horizon. Update—The Marine Corps Training Ranges RCD remains the Marine Corps' validated requirement for ranges and training areas.
OSD and Services develop requirements for a web-based library of best practices.	Navy Navy maintains the Joint Services Pollution Prevention and Sustainability Technical Library which contains guidance documents and links to Navy, DoD, and other Service range management and sustainability information. Army Army has developed the SRPWeb Portal, which is a single entry point for Army SRP information, tools, and capabilities related to SRP activities and management. The SRPWeb Portal is a tool for outreach, integrated management, and facilitates information exchange.

9 DoD Directive 5105.71, *Department of Defense Test Resource Management Center*, 8 March 2004.

4.2.2 Operations and Maintenance

Goal—Resource for standardized land management structure and operations that mitigates encroachment and provide for range sustainment. Maximizes and sustains the availability of military range infrastructure and land assets.

Table 4-2 Operations and Maintenance Actions and Milestones

2005 Actions and Milestones	Progress to Date
OSD and Services conduct at least six WIPT meetings and report to SROC.	Complete/Ongoing OSD and the Services representatives participate in regularly scheduled Sustainable Ranges WIPT meetings. Meeting results are reported to OIPT.
Services ensure that plans for new ranges consider the entire life cycle.	Complete/Ongoing Service range management programs ensure new range sustainability by implementation of life cycle management approaches.
Services brief WIPT on range sustainment funding.	Complete/Ongoing Range sustainment funding is a regular topic at WIPT meetings. Update—Service range sustainment funding data is provided in Section 4.4 of this Report to Congress.
DoD begins to develop requirements for career program.	OSD The DoD Defense Acquisition University has developed a set of courses within Acquisition Management specifically aimed at elements of the professional RDT&E range workforce. Army Army completed its eight-module Range Officer Professional Development Program to support the Range Officer career track. Marine Corps Marine Corps has taken steps to include standardizing manning and training towards career development of range professionals. Update—Continued process actions required for career development of range professionals.
OSD and Services continue to develop range clearance policy.	Navy Navy's Operational Range Clearance (ORC) policy is in effect. and is being implemented through the completion of ORC Plans. It was previously reported that 2 of 10 ORC Plans were completed. Update—2 additional plans have been completed (for a total of 4 of 10 ORCs) Five additional ORCs are scheduled for completion in calendar year 2008, with the final plan estimated to be completed during FY2010. Army Developed policy to address clearance of operational ranges (AR 350-19). Range clearance is conducted to allow safe access to ranges and preclude accumulation of munitions and debris (Section 4-12, AR 350-19). Air Force Air Force has a rigorous range clearance policy in place, as described in Air Force Instruction 13-212, Volume 1. This policy requires that Air Force Major Command (MAJCOM) Range Offices safely clear UXO from ranges consistent with the stated mission and for continuing range viability. Marine Corps: Marine Corps has completed the study, U.S. Marine Corps Operational Range Clearance and Processing Plan, and is developing a Marine Corps range clearance order. Update—Continued actions to develop a Marine Corps range clearance order.

4.2.3 Environmental

Goal—Focus the environmental management systems to fully support sustained access to ranges.

Table 4-3 Environmental Actions and Milestones

2005 Actions and Milestones	Progress to Date
Services continue to assess off-range migration of munitions constituents.	Army Army's Operational Range Assessments will be conducted in two phases: Phase I (FY2005–FY2009) and, where required, Phase II, (starting FY2010). Phase I assessments use existing information and site visits to develop an understanding of the potential for munitions constituents to move off range and present an unacceptable risk to surrounding communities and the environment. Ranges placed in the "Inconclusive" category during the Phase I assessment will require a Phase II quantitative assessment. Update—As of 30 November 2007, all Phase I assessments have been funded. Through September 2007, the Army had completed assessments at 159 installations. At those installations, 5,407 ranges on 5,272,907 acres were assessed. 1,832 ranges (34%) on 46 installations will require a Phase II assessment. The Army is preparing reports for 40 more installations and plans to complete the remaining Phase I assessments by the end of FY2009. Navy Navy has completed 13 range assessments under the Range Sustainability Environmental Program Assessment (RSEPA). 11 assessments have been for training range complexes, and two for major range and test facility base (MRTFB) sites. Marine Corps Marine Corps conducted 8 site visits between FY2004 and FY2006, and has initiated associated analysis and modeling. Update—During FY2007, Marine Corps conducted an additional five site visits. six of the 13 total assessments have been completed and reports are currently being drafted; seven assessments are still ongoing. During FY2008, Marine Corps plans to conduct an additional two site visits. All operational ranges will be reassessed at a minimum of every five years once the initial baseline assessment has been completed. Air Force In March 2006, Air Force signed-out guidance for the execution and implementation of munitions constituent migration assessments at operational test and training ranges. Update—By the end of FY2007, all Tier I Operational Ranges owned and operated by Air Force have been assessed; assessments at Tier II and Tier III ranges are ongoing. To date, no off-range contamination has been discovered as a result of the Operational Range Assessments.
Services conduct required remediation.	Army Army is currently conducting remediation activities at the Massachusetts Military Reservation. Navy To date, completed Navy range assessments do not show off-range migration of munitions constituents that present an unacceptable risk to human health or to the environment. Marine Corps To date, Marine Corps range assessments do not show off-range migration of munitions constituents that pose an unacceptable risk to human health or the environment. All operational ranges will be reassessed at a minimum of every five years once the initial baseline assessment is complete.

Table 4-3 Environmental Actions and Milestones (continued)

2005 Actions and Milestones	Progress to Date
Services complete more than 80% of required reviews and updates of Integrated Natural Resource Management Plans (INRMP) and Integrated Cultural Resource Management Plans (ICRMP).	Army Army has completed 169 out of 172 required INRMPs. The total number of required Army INRMPs was reduced from 177 to 172 due to the consolidation of 5 Hawaiian training areas into 1 INRMP for reporting purposes. The Army has completed 133 out of 143 required ICRMPs. Update—Army continues reviewing and updating required INRMPs and ICRMPs. Navy Navy has completed 23 of 79 INRMPs and 23 of 74 ICRMPs. Navy conducts annual reviews to keep ICRMPs and INRMPs current and updates them as necessary. Navy also continuously evaluates the need for additional ICRMPs and INRMPs and updates requirements as necessary. Marine Corps Marine Corps previously reported completion of 16 of 17 required INRMPs, and 12 ICRMPs. Update—All 17 required INRMPs have been completed. Headquarters Marine Corps guidance anticipated requiring ICRMP completion by remaining installations. Full implementation programmed.
Services brief the WIPT on selected RDT&E projects.	Complete/Ongoing Discussion of range-related RDT&E projects regularly occurs at WIPT meetings.

4.2.4 Encroachment

Goal—Maximize the accessibility of DoD ranges by minimizing restrictions brought about by encroachment factors. Implement sustainment outreach efforts that will improve public understanding of DoD requirements for training and testing, and support coalition-building and partnering on range sustainment issues important to DoD readiness.

Table 4-4 Encroachment Actions and Milestones

2005 Actions and Milestones	Progress to Date
OSD and Services coordinate encroachment quantification efforts. OSD coordinates with Services through bi-weekly meetings of Sustainable Ranges WIPT and meetings of DoD Natural Infrastructure Capability Work Group. Encroachment quantification efforts and progress are discussed when applicable. **OSD to report annually on encroachment quantification developments in Sustainable Ranges Report.**	Navy Navy completed initial development of a encroachment database to include issues identified by installations, ranges, and regions identified in Encroachment Action Plans (EAPs), as well as Commander, Fleet Forces Command, and Commander, Pacific Fleet through the Tactical Training Theater Assessment and Planning (TAP) program. The database will serve as a regularly updated source of information used to identify encroachment and capability issues, validate program funding requests, and to prepare reports for senior leadership. Update—Navy is continuing refinement of its encroachment data collection and management processes. Army The Installation Status Report (ISR)-Infrastructure provides facility-level ratings for each range and its supporting infrastructure to include ratings from related encroachment criteria as well as improvement costs. The Encroachment Condition Module is an objective, centralized GIS database that quantifies encroachment on Army training lands and ranges. Data has been collected and finalized for 44 installations. ISR-Natural Infrastructure, which will replace ISR-Environment, will provide an analysis of the capability of natural infrastructure to support mission requirements at the base, region, and HQDA level. ISR Natural Infrastructure will tie range capability to encroachment factors. Marine Corps Marine Corps previously reported its Training Range Encroachment Information System Tool (TREIS-T) was entering proof-of-concept phase. The TREIS-T is designed to automate range and training capability analyses, and interface with and provide capabilities assessment data to the Marine Corps' Range and Training Area Management System and the RCMPs. Update—During 2007, TREIS-T went through proof-of-concept testing. In addition, Encroachment Control Plans (ECPs) were being prepared to provide each installation with management processes, strategic planning, and range resources to combat encroachment so that ranges and training areas could continue to support realistic training. ECPs for MCAS Beaufort, SC; its supporting Townsend Bombing Range, GA; and MCAS Cherry Point, NC are completed and pending command endorsement. ECPs at MCAS Yuma, AZ and MCB Quantico, VA are underway. ECP at MAGTFTC/MCAGCC Twentynine Palms, CA is scheduled to begin in FY2008. Air Force The Air Force Natural Infrastructure Management concept continues to evolve. One portion of this effort is the Natural Infrastructure Assessment (NIA) Process to evaluate the availability or lack of availability of the Natural Infrastructure (NI) needed to support current and future mission requirements at our major installations and ranges. This assessment includes quantifying mission impacts caused by encroachment. This process will assist commanders in identifying and prioritizing initiatives to address mission inefficiencies and encroachment, and leverage excess capacities to extract military value.

Table 4-4 Encroachment Actions and Milestones (continued)

2005 Actions and Milestones	Progress to Date
OSD and Services continue to identify candidate locations for buffer initiatives and execute agreements subject to funding limits to support range operations. The Services are developing programs to support new authority under 10 USC 2684a on conservation buffer partnerships. OSD is developing a program guide to provide an overarching structure to these already successful Service-based programs.	OSD OSD continues to update its REPI program guidance in coordination with the services. OSD also reports annually on the REPI program to Congress through a separate REPI Annual Report. Navy Navy previously reported issuing Chief of Naval Operations Instruction 11010.40, establishing the Navy's Encroachment Partnering Program. Update—Navy has completed 13 EAPs at installations/ranges, is finalizing EAPs at another13 locations, and is awarding EAPs at 10 new locations in FY08. The EAPs are identifying potential Navy EP buffering acquisitions. In FY07, Navy signed 4 new multi-year Encroachment Protection Agreements and acquired a buffer parcel at NAS Whidbey Island. Army Army had 16 approved Army Compatible Use Buffers (ACUBs) in 2006. The Army had an additional 50% increase in the number of approved ACUBs in 2007. Update—Army increased the number of approved ACUBs locations from 16 to 22 in FY2007, and completed 2 ACUB projects. There are currently five additional ACUBs pending approval. Marine Corps Published the Marine Corps Installation Commanders' Guide to Encroachment Partnering in 2006 to assist planning and execution per 10 USC 2684a, as amended, authority. Update—Continued evaluation, planning, and execution of Encroachment Partnering opportunities per 10 USC 2684a authority. Air Force Air Force previously reported submitting projects to DUSD(I&E) for funding under REPI. Update—For FY2007, the Air Force submitted 13 projects for REPI funding consideration. Of the 13 projects submitted, 3 (McChord AFB, Warren Grove Bombing Range, and Eglin AFB) were approved.
OSD to develop Service-wide range inventory and database using Geographic Information System (GIS).	Currently, OSD maintains a Service-wide inventory of ranges and installations using GIS, which is provided in list and map format in the appendices of this report. DoD's Range Use Standardization Working Group's Range GIS Sub-Group provides guidance and recommendations to ensure Service-level GIS programs support sharing and access to range GIS data to facilitate cross-Service range use. Army Army is updating its operational range data layers (Operational Range Inventory Sustainment) and storing this GIS data on a central server/repository under the Office of the Assistant Chief of Staff for Installation Management (OACSIM). Marine Corps The Marine Corps maintains its inventory of ranges and installations using GIS, which is available on the Range and Training Area Management System (RTAMS). Navy The Navy utilizes geo-based systems to support the sustainability and operations all of its ranges: sea, land, and air. They vary in function from data warehousing and map publishing, to visualization and modeling, to geographic characteristics of the range itself, or the activities that feature in and around it.
OSD and Services participate in at least two national or regional meetings with key stakeholders on range sustainability issues.	Completed/Ongoing. OSD and the Services continue to participate in national and regional meetings with key sustainable ranges stakeholders. Update—OSD and Service personnel continue engaging stakeholders through multiple forums, including: ‣ The biannual Range Sustainment conference, which invites DoD and non-DoD stakeholders from the range sustainment field, was last held in Orlando in July 2007; the next conference will be in Phoenix in August 2009. ‣ The Joint Services Environmental Management Conference ‣ The Environmental Council of the States ‣ The Southeast Regional Partnership for Planning and Sustainability (SERPPAS) ‣ The Western Regional Partnership (WRP)

Table 4-4 Encroachment Actions and Milestones (continued)

2005 Actions and Milestones	Progress to Date
Conduct periodic updates to Air Installations Compatible Use Zones (AICUZ) and Range Air Installations Compatible Use Zones (RAICUZ) studies. The Services are actively reviewing the adequacy of their respective AICUZ and RAICUZ plans, and updating them as necessary.	Army Army does not use AICUZ or RAICUZ to manage noise. The Blast Noise Model is one tool used by the Army to support testing and training operations. Another tool used by the Army is the Small Arms Range Noise Assessment Model, a software program that provides the capability to calculate and display noise level contours for firing operations on small arms ranges. The noise module of the Range Manager's Tool Kit, an automated tool developed by the Army and Marine Corps to quickly display the noise impacts associated with live fire training, enables range officers to assess noise impacts on a day-to-day basis. Operational Noise Management Plans are also used by many Army installations to manage noise and its impacts on testing and training. Update—Operational Noise Management Plans were completed at 17 installations in 2007 and 16 are planned for completion in 2008. Marine Corps Completed a Noise Management Program Review in 2006. Marine Corps installation AICUZ and RAICUZ studies planned and executed per Office of the Chief of Naval Operations Instruction 11010.36 and 3550.1 respectively. AICUZ program studies at MCB Hawaii Kaneohe Bay were completed in FY2006. The RAICUZ program studies at MCB Quantico were completed in FY2006 and MCB Camp Pendleton in FY2007. Update—Marine Corps continued to evaluate and plan for additional studies. An AICUZ study is scheduled to be completed at Marine Corps Air Facility Quantico in FY2008. RAICUZ studies at Townsend Range, Chocolate Mountain Aerial Gunnery Range, and Barry M Goldwater Range-West are on target to be completed in FY2008. Air Force Air Force previously identified the AICUZ program as the backbone of Air Force encroachment prevention efforts, and the initiation of development and implementation of RAICUZ program elements. Update—Air Force bases continue to successfully participate in local land use planning processes. In FY2007, seven AICUZ reports were updated to reflect new mission operations. In FY2008, eight AICUZ reports are expected to be updated. After BRAC realignments are completed, there will be an increase in the number of AICUZ report updates. A follow-on project to test the RAICUZ framework was awarded, and the project and its preliminary results are being evaluated. Air Force hopes to integrate the results with a related effort funded by DoD Office of Economic Adjustment (OEA). This "purple" effort is designed to identify the primary compatibility issues outside our standard AICUZ compatibility zones- both geographically (ranges and airspace *vs.* airfields) and issue-wise (increased emphasis on rural land development issues, energy, bird aircraft strike hazard, light emissions, *etc.*). Navy Navy AICUZ and RAICUZ studies are planned and executed according to OPNAVINSTs 11010.36B and 3550.1A respectively. Navy has recently completed all RAICUZ studies for its range complexes. Navy is finalizing updated AICUZ's at NAS North Island, Pensacola, Patuxent River, Corpus Christi, and NAF El Centro. All Navy air installations and outlying landing fields have a current AICUZ.
Issue Outreach Policy	Navy Navy RCMPs incorporate an ongoing proactive engagement/outreach strategy conveying the Navy's environmental stewardship initiatives in balance with the need to train at its ranges as part of the TAP program. Army Complete. Army developed its Sustainable Range Program Outreach Policy and Communications Plan in 2003. The plan provides policy guidance and tools that assist installations in effectively communicating live training requirements and encroachment challenges. Its two main components are the Core Messages and Training Support Package. Update—Army is currently in the process of updating the Training Support Package and developing additional outreach tools and resources for installations. The update is currently scheduled for completion by the end of FY2008. Marine Corps Published the Marine Corps Community Plans and Liaison Office (CPLO) Campaign Plan in 2005. It remains the source document for proactive engagement and outreach strategy. Marine Corps Installations East CPLO conducted a workshop in October 2006 to coordinate regional issues in promoting Marine Corps installations operational capabilities while balancing the concerns and needs of neighboring communities and governmental and non-governmental stakeholders. Update—The Marine Corps conducted a service-wide CPLO workshop in July 2007 during the Sustaining Military Readiness Conference in Orlando, FL.

4.3 Sustainability Office Designations

Section 366(a)(3)(D) requires DoD to designate within OSD and each of the Military Departments an office with lead responsibility for overseeing implementation of DoDs' Sustainable Ranges Comprehensive Plan. Table 4-5 identifies the responsible offices.

4.4 Funding Requirements

NDAA Section 366(a)(3)(C) requires DoD and the Services to report on funding requirements associated with implementing range sustainability initiatives. DoD has acknowledged in previous reports that it faces several challenges in meeting this requirement.

Table 4-5 Responsible Training Range Offices within OSD and the Military Departments

Organization	Office with Designated Responsibility
Office of the Secretary of Defense (OSD)	OUSD(P&R) Director, Military Training, and Sustainable Ranges Office of the Deputy Under Secretary of Defense (Readiness)
Air Force	Deputy Chief of Staff for Operations, Plans, and Requirements Director of Current Operations and Training Ranges and Airspace Division (HQ USAF [Headquarters United States Air Force]/A3O-AR)
Army	Office of the Deputy Chief of Staff, G-3/5/7, Training Directorate Training Support Systems Division (DAMO-TRS)
Navy	Office of the Chief of Naval Operations, Materiel Readiness, and Logistics (N4) Fleet Readiness Division (N43) Range Modernization and Investment (N433) and Range Operations and Maintenance (N433) Environmental Readiness Division (N45) Operational Environmental Readiness Planning Branch (N456) Commander, Naval Installations Command (CNIC)/ Ashore Readiness Division (N46)
Marine Corps	Commanding General, Training, and Education Command Range and Training Area Management Division[10] Range Modernization & Investment Range Operations & Maintenance Deputy Commandant for Installations and Logistics Facilities and Services Division[11] Environmental Encroachment

One challenge is that the Services manage their range sustainment funding in a manner that best suits the way their ranges are operated to meet their specific missions. A more significant challenge is that, within DoD, funding for range sustainment efforts is spread across and embedded within different appropriations (*e.g.*, operations & maintenance, military personnel, procurement, and military construction) and program elements (*e.g.*, manpower, training, environmental, real property, utilities, *etc.*). While the details may differ to some degree among the Services based upon their particular command structure, mission, and financial processes, each experiences similar challenges which create difficulties with accurate and consistent tracking and reporting of range sustainment funding.

In an attempt to develop a common framework across the Services for consistently and accurately training reporting range sustainment funding, a Sustainable Ranges Funding Subgroup was formed under the WIPT. The subgroup examined funding strategies and categorizations used by the Services for their training range sustainability efforts. The group developed four main categories as a common starting point from which to report training range sustainment funding data. The categories and their descriptions are provided in Table 4-6.

These categories serve as an initial framework being explored by DoD and the Services to track, report, and project the need for future range sustainment fiscal resources. The ability to

Table 4-6 DoD Sustainable Ranges Initiative Funding Categories

Funding Category	Description
Modernization and Investment	Research, development, acquisition, and capital investments in ranges and range infrastructure. It includes related items such as real property purchases, construction, and procurement of instrumentation, communication systems, and targets.
Operations & Maintenance	Funds allocated for recurring activities associated with operating and managing a range and its associated infrastructure, including funds dedicated to range clearance, real property maintenance, and range sustainment plan development.
Environmental	Funds dedicated to environmental management of ranges, including range assessments, response actions, and natural and cultural resource management planning and implementation.
Encroachment	Funds dedicated to actions to optimize accessibility to ranges by minimizing restrictions that do or could limit ranges activities, including outreach and buffer projects.

10 Executive Agent for Ranges

11 Executive Agent for Installations

track the status of resources and juxtapose against the results of the range encroachment and capabilities assessments described in Section 3, will give DoD increased capability to address progress on resolving range sustainment issues. Taken together, this ability represents an important management tool that allows leadership to make informed decisions about both the adequacy of existing resources, and the need for additional investment of sustainment dollars. This year's effort is the first attempt at collecting actual range sustainment financial data and, as such will, require refinement. Future funding will necessarily be subject to change, and is presented for planning purposes only. Service-wide range sustainability funding levels for FY2008 and FY2009 are provided in Table 4-7.

Table 4-7 Service Training Range Sustainment Funding ($M)

Service	Fiscal Year	
Air Force	FY2008	FY2009
Modernization & Investment	$60.425	$61.987
Operations & Maintenance	$197.567	$205.688
Environmental	$31.812	$23.900
Encroachment	$6.570*	N/A
Air Force Total	**$296.374**	**$301.575**
Army	FY2008	FY2009
Modernization & Investment	$321.532	$339.323
Operations & Maintenance	$217.751	$293.522
Environmental	$77.951	$84.534
Encroachment	$129.150	$137.290
Army Total	**$807.024**	**$914.459**
Marine Corps	FY2008	FY2009
Modernization & Investment	$25.535	$53.182
Operations & Maintenance	$33.696**	$42.567**
Environmental	$5.700	$5.700
Encroachment	$5.000	$5.000
Marine Corps Total	**$69.931**	**$106.449**
Navy	FY2008	FY2009
Modernization & Investment	$84.982	$92.905
Operations & Maintenance	$174.207	$177.865
Environmental	$12.300	$9.970
Encroachment	$8.000	$11.000
Navy Total	**$279.489**	**$291.740**
All Services	FY2008	FY2009
Service Total	**$1,452.818**	**$1,614.223**

* *Estimated value*

** *Funds for real property maintenance and funds provided via Base Operating Support are not included as these programs are centrally managed and breakouts to range-specific expenditures were not available.*

*** *Range Clearance funds are part of a POM 2010 initiative.*

4.5. Overview of Legislative and Regulatory Initiatives

To support DoD with its national security mission, Congress has entrusted nearly 30 million acres of land—some 1.1% of the total land area of the United States—to DoD to use efficiently and to care for properly. DoD is fully committed to environmental stewardship and the sustainable management of natural resources on the land it manages, both today and in the future.

As it became clear that the military's ability to realistically train was being negatively impacted by expanding restrictions, DoD sought limited relief from Congress in a package of focused legislative and regulatory initiatives included in fiscal year defense authorization proposals. This section of the FY2008 Sustainable Ranges Report addresses FY03 NDAA Sections 366(a)(4)(c) and FY04 320(a)(2-3) requirements to report on such initiatives.

4.5.1 The Readiness and Range Preservation Initiative

In 2002, as part of the FY2003 defense authorization proposal, DoD submitted to Congress an eight-provision legislative package known as the Readiness and Range Preservation Initiative (RRPI). The purpose of RRPI is to sustain DoD test and training resources, obtain clarification on the applicability of specific environmental statutes to military readiness activities, and provide DoD with flexibility in selected aspects of environmental statutes to assist the Services in balancing both military needs and environmental protection. Under RRPI, DoD is, and will remain, subject to the same regulatory requirements as other federal agencies when performing the same types of regulated activities. Limited relief was sought only for issues that have no private-sector equivalent, such as military training, testing, and related readiness activities. The eight DoD RRPI provisions address the following areas:

- Land Conservation Partnerships
- Surplus Property Conveyance
- Migratory Bird Treaty Act (MBTA)
- Endangered Species Act (ESA)
- Marine Mammal Protection Act (MMPA)

- Clean Air Act (CAA)
- Resource Conservation and Recovery Act (RCRA)
- Comprehensive Environmental Response Compensation and Liability Act (CERCLA)

Land Conservation Partnerships, Surplus Property Conveyance, and the Migratory Bird Treaty Act

The 107th Congress enacted provisions related to Land Conservation Partnerships, Surplus Property Conveyance, and the MBTA. The Land Conservation Partnerships and Surplus Property Conveyance provisions have allowed DoD to cooperate with state and local governments, NGOs, and other private entities to more effectively plan for growth surrounding our ranges by allowing DoD to work toward preserving habitat for imperiled species, and assuring that development and land uses are compatible with the training and testing activities which occur on our installations. The implementation of programs under these two provisions have led to partnering efforts to purchase, lease, or otherwise protect/preserve lands around DoD properties with the outcome being mutually beneficial to the military and the local communities by simultaneously enhancing the ability to train and further conservation goals.

The MBTA provision provided DoD with an interim regulatory exemption to address the incidental take of migratory birds that may occur as a result of military activities during the period when the Fish and Wildlife Service (FWS) drafted regulations to address the issue. The interim exemption expired on 30 March 2007, the effective date of those regulations.[12] Under the 2007 FWS regulations, the Armed Forces are allowed to take migratory birds during the course of military readiness activities. If the Services determine that a proposed or ongoing readiness activity may result in a significant adverse effect on a population of a migratory bird species, they must confer and cooperate with the FWS to develop appropriate and reasonable conservation measures to minimize or mitigate such efforts. The Secretary of Interior retains the power to withdraw or suspend the authorization allowing takes from such readiness activities in particular circumstances. The Services continue to be responsible for addressing activities other than those associated with military readiness in accordance with the memorandum of understanding (MOU) developed under Executive Order (EO) 13186, *Responsibilities of Federal Agencies to Protect Migratory Birds*.

The Endangered Species Act and Marine Mammal Protection Act

The 108th Congress passed two additional RRPI provisions pertaining to the ESA and the MMPA. The ESA provision authorizes the use of DoD INRMPs that benefit threatened and endangered species as a substitute for critical habitat designation under Section 4 of the ESA. DoD INRMPs require installations to plan and implement conservation and protection activities for listed and candidate species and for critical habitats that occur on the installation. The Services work cooperatively, from initial draft to final copy, with FWS and the states at each level of INRMP development. Mutual agreement on the adequacy and protectiveness of the plans is achieved when the INRMP is signed for approval by the installation commander, with written concurrence provided by the FWS, its Regional Director, and equivalent state officials. The effectiveness and validation of INRMP management actions are assessed during periodic reviews conducted by the installations, FWS, and the States. The DoD continues to be subject to all other requirements under the ESA.

With regard to the MMPA, DoD worked closely with the National Oceanic and Atmospheric Administration, the Department of the Interior, the Marine Mammal Commission, and other stakeholders to develop a revised definition of "harassment" of marine mammals as it applies to military readiness activities. The revised definition does not exempt DoD from complying with the MMPA, but requires greater scientific evidence of harm and consideration of the impacts to military readiness in the issuance of permits for incidental takes.

CAA, RCRA, and CERCLA Provisions

The DoD submitted the remaining three RRPI provisions to the 107th, 108th, and 109th Congresses. Through the provisions the Department requested that Congress:

- Allow DoD and states up to three years from the start of new military readiness activities to satisfy CAA State Implementation Plan (SIP) general conformity requirements when existing units are relocated or new units are moved to an installation
- Codify the premise that the use of military munitions on operational ranges does not constitute the generation of solid or hazardous wastes as defined under RCRA
- Codify the premise that the use of military munitions on operational ranges does not constitute a release as defined under CERCLA, provided that the munitions remain on

12 See 72 Federal Register 8931.

the range where they were used and there is no migration of munitions constituents from an operational range to off-range areas

The Department did not include similar language in its FY2009 budget submission. See Section 5.6 for an additional explanation regarding this subject.

4.5.2 State Legislative Initiatives

State of Oklahoma

The State of Oklahoma recently enacted a comprehensive anti-encroachment bill that covers all military assets in the State which rely on real data rather than arbitrarily established distances from installation boundaries. Under 11 Oklahoma Statues Section 43-101.1, any municipality that is wholly or in part within an AICUZ study area, JLUS area, ACUB, or an Environmental Noise Management Plan (ENMP) area of an active duty, National Guard, or Reserve military installation may enact a city ordinance restricting or prohibiting future uses for that incorporated area which lies within the AICUZ, JLUS, ACUB, or ENMP area, and which may expose residents to excessive noise, accident potential, or interfere with military operations, including aircraft operations. Such ordinances restrict or prohibit future uses which release airborne substances that would: impair visibility or otherwise interfere with military operations; produce light emissions which would interfere with pilot vision and aerial or ground-based night vision training; produce electrical emissions which would interfere with military ground, aircraft communications, and navigation equipment; attract birds or waterfowl; allow structures within specified distances of defined aircraft approach, departure, transitional surfaces, or beneath low-level military aircraft training routes; or expose persons to excessive noise. The statute has been provided to both Kansas and Texas for consideration in the upcoming 2008 legislative sessions.

State of Wisconsin

In 2005, the State of Wisconsin passed Act 26 which established a Council on Military and State Relations to assist the governor with developing and implementing strategies designed to enhance the State's military installations, and to assist military base commanders interact more effectively with local zoning entities. Under Wisconsin's Smart Growth statute, if a city, village, town, county, or regional planning commission (local governmental unit) creates a development plan or master plan (comprehensive plan) or amends an existing comprehensive plan, the plan must contain mandatory planning elements, including the maps and plans of military bases with which the local government unit shares common territory. In 2007, the State legislature introduced Assembly Bill 120 to further minimize incompatible land use and reduce citizen complaints. The bill requires sellers of real property to disclose on a State-mandated real estate condition report when the property lies within one mile of a military base, and to have property buyers acknowledge that the property lies within one mile of the boundaries of a military base.

State of Nevada

The State of Nevada in 2007 passed Senate Bill 269 to increase coordination and communication between local governments and military bases as a means of addressing civilian encroachment on military installations. The bill, which was signed in May 2007, became effective on 1 October 2007, requiring certain land use decisions to take into account the presence of military installations. It also requires the commander of a military installation be given the same notice of changes in master plans/zoning ordinances afforded to other neighbors if the military installation is within 3,000 feet of property undergoing change, a distance state regulators felt was appropriate in light of future aircraft technological advances. While the bill does not prohibit development near military bases, it does guarantee that the military is made aware of proposed land use changes and potential incompatible land uses, and allows the military to participate in public meetings and voice any concerns it may have. The bill also requires responsible planning commissions to place terms and conditions to protect the safety and security of military installations in any conditional use permits that may be issued.

4.5.3 Service Legislative Initiatives

Navy and Bureau of Land Management Memorandum of Understanding

The Navy initiated a legislative proposal to amend the Federal Land Policy and Management Act as part of the FY2008 defense authorization proposal. The proposal gave the Secretary of the Interior the authority to grant temporary and limited authorizations for the military to conduct training on BLM land in Nevada. The proposal was designed to help ensure military units have access to land resources to support joint field training between Naval aviation units and Army ground units as a means of preventing surface-to-air fratricide events. For this kind of training to be effective, Army surface-to-air Patriot missile batteries would need to be placed on BLM land underlying the Navy's Fallon Training Range Complex Special Use Airspace, an action that would require either a land use authorization or a more formal land withdrawal. In September 2007, the action to amend the law transitioned to an interagency action to establish a formal MOU between the Navy and BLM enabled the desired

training benefits for both the Navy and Army. Formal staffing of the MOU between Navy, Army, and BLM offices continues to progress, with the signing of the memorandum expected to occur early CY2008.

4.5.4 Section 320 Impacts

For purposes of the FY2008 Report to Congress, none of the Services reported impacts on military training and testing resulting from the CAA, RCRA, or CERCLA in FY2007.

4.6 Compatible Land Use and Outreach

4.6.1 The Readiness and Environmental Protection Initiative

The REPI program supports DoD compatible land use and conservation partnering initiatives and projects at ranges and installations across the country, and is a critical component of DoD's SRI.

REPI implements the authority authorized by Congress in 2002 under 10 U.S.C. § 2684a by providing DoD funding to the Services to enter into agreements with private conservation organizations and with state and local governments. Such agreements allow the Services to cost-share with these partners the acquisition of conservation/restrictive-use easements and other interests in land from willing sellers.

Prior to the enactment of 10 U.S.C. § 2684a, the Sikes Act was the primary authority for DoD to enter into cooperative agreements with state and local governments, NGOs, and individuals to maintain and improve natural resources. This authority was almost entirely directed toward protection of resources within DoD installation boundaries and partnerships took the form of working relationships to protect and revitalize species through various installation habitat enhancement efforts.

The REPI program, however, has allowed DoD to work collaboratively with stakeholders outside the installations' boundaries to help prevent encroachment on military land by preserving high-quality habitat and/or limiting incompatible development near ranges and installations.

A 2007 RAND Corporation study assessing the REPI program found that "Initial results suggest that REPI is having a positive effect." The success of the program is evident by the increasing level of support provided by Congress as well as by the effectiveness of the buffer projects themselves being carried out and the new partnerships being leveraged.

In FY2005, the first year of program funding, Congress appropriated $12.5 million to DUSD(I&E) to fund compatible land use projects at seven DoD installations. In FY2006, Congress increased REPI funding to $37 million, which was applied toward projects at 19 installations. In FY2007, $40 million was appropriated and applied toward projects at 26 installations. In FY2008, funding was further increased to $46 million, which is going toward projects at 31 installations.

For additional information on the REPI program and the military's efforts to reduce encroachment through use of the 10 U.S.C. § 2684a authority, please refer to DoD's 2008 Report to Congress on the Readiness and Environmental Protection Initiative, at *https://www.denix.osd.mil/portal/page/portal/denix/range/Compatible:REPICongress*.

4.6.2 DoD Joint Land Use Study Program

DoD's Office of Economic Adjustment (OEA) manages the Joint Land Use Study (JLUS) program. JLUS is a cooperative land use planning effort between affected local governments and military installations that seeks to anticipate, identify, and prevent growth conflicts by helping state and local governments better understand and incorporate technical data developed under Service AICUZ, RAICUZ, and Operational Noise Management Program studies into local planning programs. When a Service believes an installation may be experiencing incompatible development problems, or that there is the likelihood for incompatible development that could adversely affect the military mission, the Service may nominate the installations for a JLUS to an OEA. Each of the Services takes advantage of OEA's JLUS program, finding it an effective tool for bringing communities and the military together to mutually address development issues and needs.

4.6.3 Outreach and Education

Outreach and stakeholder involvement efforts provide the basis for a successful SRI. Internal and external education and coalition building/partnerships, are methods used to engage stakeholders and advance the SRI mission. DoD also supports facilitating information exchange to foster interest and understanding among stakeholders.

The DoD has developed numerous SRI tools to facilitate outreach, education, and training of DoD personnel on engagement with stakeholders and potential partners. DoD developed the public Sustainable Ranges website on the Defense Environmental Network Information eXchange (DENIX)—an information portal for environment, safety, and occupational health news—as an early initiative to inform communities of the SRI. This website provides users with information on recent initiatives, tools and training resources,

SRI policies, partnership opportunities, and an informative compatible land use discussion page. DoD continues to update and expand the SRI website to keep the public and military communities informed of SRI progress and activities. (*https://www.denix.osd.mil/sustainableranges*)

To complement the SRI website, DoD released a series of primers or guidebooks in 2006 outlining best practices in a reader-friendly format to be used by both the military and stakeholders. These primers were developed through partnerships between DoD, professional and educational associations, conservation organizations, and state and local governments to facilitate communication and expand collaboration between communities, governments, and military installations. By using the primer series, military installation personnel can better understand local government management and legislative processes, and exercise best practices to facilitate encroachment discussions with community stakeholders. Likewise, state and local governments can utilize these guidebooks to understand the importance of mission sustainability, and recognize the military's historical and cultural role within the community, as well as efforts to interact and partner beyond the fence line. DoD distributes primers individually or as a series, upon requests from partners such as Service officials, other Federal agency representatives, state and local officials, and conservation and land use groups. The series is also displayed at conferences.

In 2007, DoD released two additional primers titled *Strengthening Military-Community Partnerships: Land Use, Clean Energy and Mission Change, and Supporting Defense Communities: State and Military Lessons Learned*. The first introduces the subject of defense community sustainability, and offers background and examples of possible policy options to address sustainability issues (*e.g.* model legislation for state governments, guidance on clean energy, and sustainable environmental practices). The second primer assesses lessons learned from implementation of relevant legislation, and offers case studies on how to strengthen military-community partnerships.

Another tool developed by DoD for use in supporting the SRI is the range tour. Beginning in 2004, DoD personnel working to support the SRI have been conducting educational range tours to facilitate communication between specific military installations, stakeholder groups, and partnering agencies. The purposes of range tours vary. In some instances, the tour is designed to highlight installation natural resource programs; in other cases, participants are given the opportunity to view urban development and learn about how encroachment factors related to incompatible growth can inhibit range activities. When possible, participants view live testing and training activities allowing them to better appreciate military training. Every range tour highlights DoD's commitment to mission requirements while simultaneously conserving, and when possible promoting the Nation's natural resources. Range tours also provide participants with a forum to interact with natural resource managers, Service personnel, and occasionally the Installation Commanding Officer. Open dialogue during these tours is encouraged—both the range tour participants and base personnel are expected to ask "hard questions" of one another. Although range tours are limited, DoD's goal is to develop the range tour method as a common dialogue practice between DoD and stakeholders.

National Conference

From 30 July through 3 August, DoD held the 2007 Sustaining Military Readiness Conference, designed to bring together DoD personnel and partners from the operational, planning, and cultural and natural resources conservation communities. Approximately 900 individuals representing DoD, other government agencies, and NGOs engaged in discussions and educational training to promote military readiness through conservation, compatible land use planning, and encroachment mitigation. Workshops and sessions offered valuable insight and skills for mission success. Speakers presented best practices across DoD and the private sector on sustaining testing and training ranges. Following the four-day conference, participants had the opportunity to attend field trips supplementing the discussions and applying lessons learned in the field. Attendee feedback indicated the high utility of this conference, and strongly supported future conference of this nature. The next Sustaining Military Readiness Conference will be held in Phoenix, AZ, in August 2009.

4.6.4 Partnerships and Collaboration

Effective partnerships and coalitions at the national, regional, and state and local levels are necessary to ensure the sustainability of military testing and training. DoD and military installations engage stakeholders and partners at each of these levels to promote cooperation and collaboration in support of military readiness and range sustainability.

National Level

In order to facilitate interagency cooperation at the national level, DoD is supporting an Intergovernmental Personnel Act (IPA) position to build relationships and address specific SRI issues and focus areas. The IPA is a program designed to involve intergovernmental officials in the implementation of Federal policies and programs.

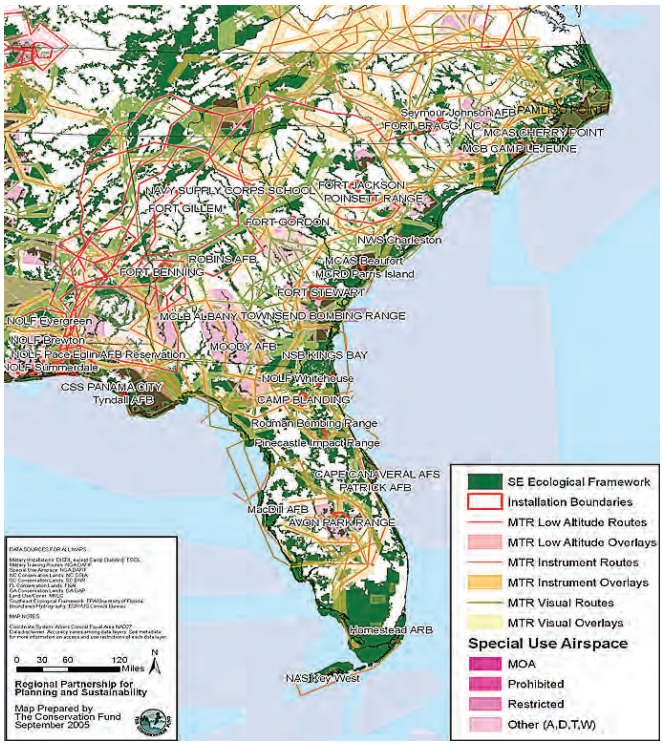
The IPA liaison coordinates with the Department of Interior, the U.S. Department of Agriculture, and the Environmental Protection Agency (EPA); oversees regional level initiatives; and fulfills a representative role on the Federal Lands Protection Program Work Group. These responsibilities support initiatives to improve the REPI program, as well as the SRI goals to coordinate and collaborate on a national level and ensure other agencies receive information pertaining to DoD range sustainability initiatives and joint projects.

Regional Level

At the regional level, DoD has established two partnerships that address sustainability issues: SERPPAS and WRP. These two partnerships address sustainability and compatible land use issues relating to shared airspace and natural resources, urban sprawl, and installation boundaries and metropolitan areas that cross state lines.

In 2005, state environmental and natural resource officials from across the southeast partnered with DoD and other federal agencies to form SERPPAS to promote better collaboration when making resource-use decisions. SERPPAS works to prevent encroachment around military lands, encourage compatible resource-use decisions, and improve coordination among regions, states, communities, and Military Services. The region covered by SERPPAS (as seen in Figure 4-1) includes the states of North Carolina, South Carolina, Georgia, Alabama, and Florida. Federal partners include DoD, US FWS, USDA Forest Service, EPA, and the National Oceanic and Atmospheric Administration.

Figure 4-1 Southeast Regional Partnership for Planning and Sustainability Focus Areas



The mission of SERPPAS is to seize opportunities and solve problems in ways that provide mutual and multiple benefits to the partners, sustain the individual and collective mission of partner organizations, and secure the future for all the partners, the region, and the nation. This mission is being accomplished through identifying opportunities for mutual gain among all partner groups, effectively addressing differences among the partners, and focusing on identifying solutions to complex problems. SERPPAS partners have identified four primary objectives that support the SERPPAS mission:

- Promote improved regional, state, and local coordination
- Manage, sustain, and enhance national defense, natural, economic, and human resources
- Develop and complete regional projects supporting the sustainment of natural, economic, and national defense resources related to base realignment planning in the southeast region
- Develop a GIS Sustainability Decision Support Tool that integrates federal, DoD, Military Service, and state data for use in regional planning by both SERPPAS and the States.

The DoD's second regional pilot effort, the WRP (Figure 4-2), continues to build momentum after a successful initial meeting in the fall of 2007. Several key issues (*e.g.* wildlife corridors; coordinating and sharing GIS data; border, energy, and disaster management) were identified as starting points for potential projects under the WRP framework. A DoD executive team has been formed to coordinate and communicate WRP-related activities to the Service principals, OSD leadership, and regional partners. Working groups for wildlife corridor issues and GIS coordination have been formed and have started work on various initiatives. DoD representatives involved in border issues, energy, and disaster management are currently forming working groups with interested stakeholders.

Participants in these subgroups and in the principals' forum include DoD personnel and Service members from the Southwest region, senior staff from federal agencies such as the BLM and Department of Homeland Security (DHS); representatives from Arizona, California, Nevada, New Mexico and Utah and other interested stakeholders. Part of the working group's tactical planning includes coordinating

Figure 4-2 Western Regional Partnership Focus Areas

with parallel ongoing efforts led by the Western Governors' Association (WGA). The WGA is well-positioned within the west to provide guidance and issue-related support to the nascent WRP. Participation in appropriate WGA endeavors provides a venue for effective articulation of DoD interests throughout the western U.S.

State and Local Levels

The DoD has entered into and cultivated many partnerships at the state and local levels. Although mission preparedness and sustainability of testing and training resources are frequently discussed in regards to national security, it is the daily military activities at the state level, and within local cities and counties across the nation where communities are directly influenced.

Recognizing that military installations provide significant economic benefits, many states have begun working to ensure the continued viability of the military operations they host. Texas is home to 18 military installations that employ over 220,000 people, and significantly contribute to the Texas economy and social system. As a result, the State has adopted an interventionist approach to this military-community relationship. State legislation has taken a two-pronged course to preserving military operational sustainability: establishing the Texas Military Preparedness Commission and creating the Texas Military Value Revolving Loan Account.

The Texas Military Preparedness Commission, which is located within the Governor's office, was borne out of a number of pre-existing defense-related groups. The Commission tracks and assesses the status of installations and their surrounding communities, and offers policy recommendations for maintaining positive interaction between the two. The Texas Military Value Revolving Account is meant to offset costs associated with such changes, such as base closures and realignments. The State helps local communities adjust their economies to make up for losing installations, or helps communities facing an influx of military personnel and their families to provide increased services. Like Texas, Georgia, South Carolina, North Carolina, and Florida have taken similar steps to ensure the continued success of military operations in their states.

In August 2007, the W.K. Kellogg Foundation purchased 326 acres of land adjoining the Army National Guard at Fort Custer Training Center in Michigan to provide encroachment relief. The land will become open green space and be managed by the Calhoun Conservation District as limited-use public space. The Michigan ANG will develop an environmental management plan for the property to

limited-use public space. The Michigan ANG will develop an environmental management plan for the property to maintain threatened and endangered species, and allow outdoor recreation opportunities for the public.

To aid in the issues affecting civilians living near or around military communities, county governments are collaborating with DoD and various organizations, such as the National Association of Counties (NACo), a national resource organization for the advocacy of county governments. From 13-17 July 2007, NACo held its 72nd Annual Conference and Expo to highlight the partnership with state and local governments to promote mission sustainability and compatible land use planning. During the workshop, NACo focused on how counties, military installations, and communities can address training constraints and community concerns around testing and training ranges using collaborative communication processes. NACo has become a valuable partner in SRI outreach efforts by providing liaison support between counties and DoD.

Ultimately, The SRI's outreach and partnering goals are to create open lines of communication between military installations and local, state, and Federal stakeholders. DoD does not seek to simply inform their stakeholders, but also to engage them in the military sustainability process and encourage them to collaborate across many partnering levels. Together, civilians and the military can sustain the future of their communities through partnering, mission sustainability, and land management.

4.6.5 Service Outreach and Communication Efforts

The Services are in varying phases of developing and implementing Service-specific outreach and communication programs to support range sustainment and compatible land use issues. The following are two examples of current Service outreach initiatives.

Army: Training Support Systems Division

The Army has developed a focused community research concept and is in the process of implementing it at select installations around the country. The concept is built primary and secondary research. Primary research activities include community stakeholder interviews, roundtable sessions, and community surveys, while secondary research activities include news media analysis, demographic analysis, and elected official background analysis. The goals of this research are to:

- Identify stakeholder issues, attitudes, and beliefs
- Determine if the current community environment is one of support or opposition
- Determine the appropriate messages and audiences for inclusion in communication planning

Navy and Marine Corps: Naval Air Station Whiting Field Community Planning Liaison

Naval Air Station Whiting Field, the Navy's primary base for fixed-wing training and home to all helicopter training for the Navy, Marine Corps, and Coast Guard, provides a notable illustration of successful military-community partnership. Whiting Field is located in Santa Rosa County, Florida, one of the fastest growing counties in the nation. As such, there is tremendous residential and commercial development in the areas surrounding the installation and this development encroaches on flight training, thus threatening mission readiness.

In order to help reduce these pressures, Whiting Field has a formal community planning liaison officer who works with officials from area municipalities and Santa Rosa County, as well as the Governor's office. The responsibilities of this officer are to:

- Sit on planning and advisory boards
- Brief the community about the Navy's needs and scope of operations
- Interact with local officials on a daily basis

According to State law, local officials are required to seek input from bases about land management plans. By establishing and maintaining productive relationships, Whiting Field has used this legal requirement to weigh in and influence development plans to the benefit of sustaining military operations.

4.6.6 Description of Readiness Benefits

To address Congressional reporting requirements, the Services were asked to discuss and give examples of how legislative provisions, regulatory initiatives, and related activities have, or are expected to, benefit military readiness and enhance or improve military range sustainment efforts. A summary of these discussions and example military benefits stemming from legislative and regulatory initiatives is provided in the following paragraphs.

Compatible Land Use and Encroachment Prevention

The inherent potential for accidents and annoyances associated with military training make some types of development incompatible or unsuitable for locations in the immediate vicinity of airports and airfields. The authority in 10 USC 2684a has its greatest impact in areas that are currently not developed but have potential for growth in the future, and will be most helpful in those situations where zoning and other land use controls cannot be used because the issue is not an appropriate use of existing local government power. The authority is less beneficial to those areas that are already heavily developed because of the difficulties bases face in finding cities, counties, or other partners who are willing to fund acquisition of development rights.

In the McChord AFB North Clear Zone project, the base is partnering with Pierce County, Washington, to acquire the development rights for undeveloped land in the North Clear Zone. The clear zone is the area immediately beyond the end of the runway that possesses a high potential for accidents. The acquisition of undeveloped land in the McChord AFB clear zone will prevent further development in an area of highest accident potential, and has contributed to enhanced readiness by increasing the safety of the airlift mission for Fort Lewis.

The State of Florida and local jurisdictions in northwest Florida have recognized the importance of maintaining the mission capability of Eglin AFB, and have enthusiastically engaged Air Force personnel in a number of conservation and compatible land use initiatives. The Eglin AFB project will result in the acquisition of interest in land near Navy Outlying Landing Field (NOLF) Choctaw, a military airfield located on the greater Eglin Military Reservation, but managed and used by the Navy. NOLF Choctaw provides flight training for Navy, Marine Corps, Coast Guard, and Air Force pilots. This project proposal will prevent residential development in an area currently used by the Navy for touch-and-go carrier training, and by all the Services for primary flight training on existing T-34C aircraft and new Joint Primary Aircraft Training System T-6A aircraft. This project will limit local citizen exposure to increased aircraft noise levels if new F-35 Joint Strike Fighter training operations are conducted at the facility.

The Warren Grove Bombing Range, located in New Jersey, provides aerial bombing and gunner training for active duty Navy and Marine Corps units, as well as Air Force active duty, Guard, and Reserve units. The Warren Grove Bombing Range project will involve the acquisition, by the New Jersey Conservancy, of 851 acres of currently abandoned or unmanaged lands adjacent to the bombing range and the Pine Barren's preserve. The Pine Barrens, also known as the Pinelands, was designated the nation's first National Reserve in 1978, and was designated a United Nations International Biosphere Reserve in 1983. Ownership by the New Jersey Conservancy will result in the implementation of vegetation management practices designed to minimize the risk of fire from military training exercises. Vegetation control practices to decrease the likelihood of training-induced fires will not only minimize the number of days that the range is closed to the military, but will reduce the occurrence of natural wildfires and protect private property near the range. Section 364 of the FY2008 NDAA specifically requires the Air Force to report on efforts to implement safety measures and further study encroachment issues at the range.

In December 2007, the Air Force Real Property Agency completed the first property exchange at an active installation using special authorities granted by DoD and the Services under 10 USC 2869. Under 10 USC 2869, the Services are authorized to exchange excess non-BRAC or surplus BRAC property with any party who will provide needed construction projects, property, or housing needed by the Services, or enter into support agreements with the Services to limit encroachment. The transfer occurred at Charleston Air Force Base, South Carolina, where an excess tract of land was exchanged for property owned by South Carolina Electric and Gas located within the bases runway clear zone, preventing potential future development within the zone that could impact the base's flying operations.

Migratory Bird Protection Act

It is illegal to take, possess, buy, or sell migratory birds without a valid permit under the MBTA. While regulations implementing MBTA authorized permits for intentional take of migratory birds for activities such as scientific research, education, and depredation control, there has been no permit process to specifically address the incidental take of migratory birds under the MBTA. The development, review, submission, and approval of environmental permits is recognized by most stakeholders as a lengthy and time consuming process due to the individual responsibilities of the applicant, the regulatory agency, and input from the public. As noted in Section 4.5.3, during the period of time in which the Secretary of Interior was developing regulations to address incidental takes, DoD was exempt from the MBTA. General knowledge that the MBTA's permitting provisions did not apply during this period had a beneficial effect on Service readiness by reducing the length of delays that would otherwise be attributable to the permitting process, and by allowing training and testing activities to be conducted in accordance with standards and

completed in a timely manner. The exemption also diminished the potential for lawsuits enjoining the training and testing associated with the execution of military readiness activities.

Endangered Species Act

In addition to the requirement under ESA Section 7 regarding consultation for actions that may affect listed species, when an area on or near a military range is designated as critical habitat under the ESA, it triggers an additional requirement to consult with the U.S. Fish and Wildlife Service and/or National Marine Fisheries Service, as appropriate, for any action that may affect the designated critical habitat. This may require the preparation of a biological assessment or similar document to assess the impacts of range operations on critical habitat as well as listed species located on or near the range, which can delay scheduled activities. In addition to adversely impacting military readiness, the requirement can strain personnel and operations due to the unexpected need for resources that were not previously considered in the budgeting process. If the operations are determined to result in the destruction or adverse modification of critical habitat, or result in jeopardy of or take of listed species, range operations will likely be restricted and possibly stopped.

The RRPI provision allowing the use of approved INRMPs that benefit threatened and endangered species as a substitute for critical habitat designations under the ESA provides installations greater flexibility in managing their natural resources in a manner that benefits both military readiness and the environment. This reduces restrictions on training and testing and decreases the administrative burden associated with managing military ranges.

4.7 Readiness Reporting Improvements

As robust encroachment and capabilities assessments are conducted under the SRI, DoD is enhancing its DRRS by establishing a range component to address range resource and readiness issues. DoD actions to better integrate range readiness issues into the DRRS are consistent with the Section 366(b) requirement to improve readiness reporting by reflecting the training and readiness impacts caused by constraints on the use of military lands, marine areas, and airspace.

4.7.1 The Defense Readiness Reporting System

The GWOT and U.S. military involvement in Iraq and Afghanistan have reinforced the urgent need for a robust readiness reporting system that can provide accurate, relevant, and timely information to support the full range of operational planning, as well as offer risk assessments of multiple simultaneous contingencies in the context of Defense Strategy. DoDD 7730.65, *Department of Defense Readiness Reporting System*, authorized the establishment of a readiness assessment network to calculate the capabilities and preparedness of military units to conduct wartime missions and other contingencies.

The DRRS provides the means to manage and report on the readiness of DoD and the Services by building upon existing processes and readiness assessment tools to establish a capabilities-based, adaptive, near real-time readiness reporting system. It is currently capable of reporting on the availability of resources needed to support a mission in six resource pillars: Personnel, Equipment, Services, Training, Ordinances, and Facilities. It establishes a mission-focused, capabilities-based, common framework that provides the Combatant Commanders, Military Services, Joint Chiefs of Staff, and other key DoD users a data-driven collaborative environment in which to evaluate, in near real-time, the readiness and capability of our Armed Forces to carry out their national security missions.

The DRRS enables commanders and force managers to look across DoD for required capabilities, identify organizations with those capabilities, and then determine the readiness of the organizations to provide the capability. Readiness to provide needed capabilities for missions is established based upon available resource and the ability of an organization to execute its METs and METLs, and to support the Joint Force Commander's JMETLs to prescribed standards.

4.7.2 Relationship with Other Readiness Systems

The DRRS also links to broader DoD Transformation initiatives such as training, logistics, and personnel systems. Additionally, the METs considered in the DRRS provide the building blocks to support existing readiness processes, including the Request for Forces, Force Management, Joint Readiness, and Adaptive Planning tools. Effectively linking the DRRS with other existing and planned systems and decision support tools will further enable the emerging DoD requirement of on-demand creation and revision of executable plans, with up-to-date options, in near real time, as circumstances require. The Services are in various stages of improvement in establishing links to the DRRS Program. These ongoing readiness initiatives are currently focused on providing a robust organizational readiness view using information contained in the relevant authoritative databases and made available through Enhanced Status of Resources and Training Systems.

4.7.3 Range Readiness as a Component of DRRS

For reporting range readiness through the DRRS, DoD is planning to establish either a pillar or a sub-pillar within DRRS that will report "range as a resource" for supporting the mission. Based on existing DRRS capabilities and evolving range readiness reporting requirements, various conceptual approaches will be developed and validated to define the system's functional requirements. The information gathered from this process will be used by the DRRS development team to design, implement, and deploy range specific readiness into the system. A detailed work plan and general conceptual approaches are under development.

Initially, the core missions assigned to the operational forces will be used for mapping their association to range missions. Using this relationship as a baseline, DoD is planning to conduct pilot tests to validate the concept and ability to manage supporting data and assessments up through the DRRS system. These pilot tests will form the basis of the functional requirements to build the initial range readiness pages in the system. The conceptual relationships for reporting readiness is provided in Figure 4-3.

The establishment of distinct range tabs within the DRRS will follow these steps:

[1] Business process definition

- [a] Service range area chain of command and organization
- [b] Range mission and task definition
- [c] Metrics development for assessment of mission capability
- [d] Assessment of data sources and processes that can support the proposed metrics

[2] Field test for concepts and assessment of supporting information systems

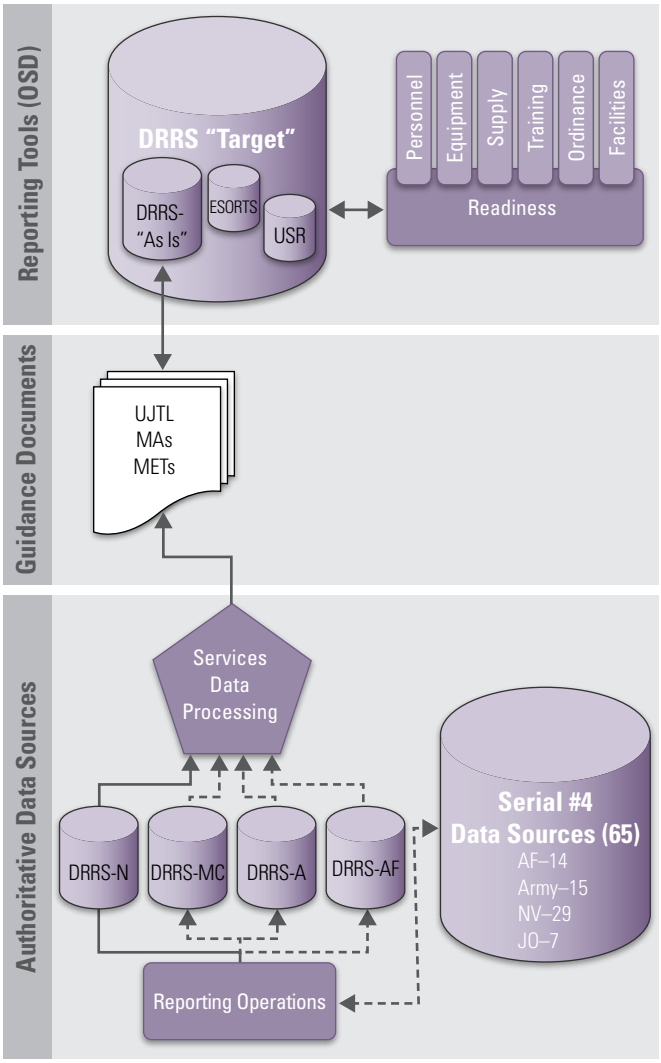
[3] Development of the DRRS functional requirements document

[4] Development of the DRRS systems requirements documents

[5] Roadmap for future developments

As part of the DRRS change management process, DoD has released serial guidance to refine the actions required to meeting DoDD 7730.65. The issues and focus areas necessary to meet this range readiness reporting roadmap are being coordinated with the DRRS Program Office. The intention is to establish a process that is structured enough to manage positive movement towards the goals of range readiness reporting, while allowing for flexibility and the ability to adapt to the certain changes in a dynamic and evolving readiness management system.

Figure 4-3 Conceptual Relationships for Reporting Readiness



4.8 Range Information Enterprise

As the SRI continues to mature, the need to maintain, access, analyze and share range specific data to support reporting requirements and to inform decision makers also is maturing. DoD continues to encourage Service development of distributed information system solutions that satisfy Service and range needs, and the ability to share summary data and support specific information requests from OSD and other users. Such needs include:

- Congressional reporting requirements
- Range inventories, capacity, and capabilities
- Range readiness reporting
- Investment planning
- Budget management
- Range sustainability initiatives
- Asset management

Information management efforts conducted under the Range Information Enterprise will be based upon strategy aligned to DoD and federal information sharing goals and policies (e.g., Net-Centric Data Strategy). All efforts will contribute to the development of a shared data environment that will support range management decision-making and reporting.

4.9 Range Inventory Summary

NDAA Section 366(c) requires DoD and the Services to develop and maintain a training range inventory. This section represents a summary of the Service inventories, and provides current inventory information. DoD believes an accurate inventory is necessary to support range management and planning processes. In addition to the requirement to maintain a training range inventory as set forth in NDAA Section 366(c), DoD has issued specific policy directives that require the Services to develop and utilize sound GIS-based range inventories and scientific data as the basis for decision-making that supports training and testing mission activities. Specific inventory details for each Service is provided in Appendix C, while a more detailed description of DoD and Service range sustainment policies are provided in Appendix E.

The Sustainable Ranges Report Inventory is organized into the following components:

- Regional Range and Special Use Airspace (SUA) Maps—These maps display the location of DoD training and testing ranges and SUA around the world using a GIS database that integrates data from the Services and the National Geospatial Intelligence Agency (NGA). Each Service maintains geospatial information on their training and testing ranges.
- Tabular Range Inventory—This component of the inventory provides a list of range complexes, range descriptions, and available range types. The Services maintain more detailed inventories that are used to support their specific range management and sustainment processes.
- SUA Inventory—This portion of the inventory provides a list of SUA and includes information relating to the controlling agency, associated range complex or installation, altitudes, users (Military Service), and area.
- Military Training Route Inventory—The Military Training Route (MTR) inventory includes a listing of the three types of routes: visual routes, instrument routes, and slow routes. The inventory provides information on each MTR, including the originating agency, scheduling agency, effective times, and route length.

The Sustainable Ranges Report Inventory is built on Service inventories and information pulled from Service-supporting information management systems. When compiled, this inventory provides a comprehensive picture of DoD training and testing assets. In order to provide a Service-level perspective on range inventories, the following highlights some of the key components of the Service range inventories.

4.9.1 Army Range Inventory Description

Background

The Army complies with Congressional and DoD range inventory requirements by providing a comprehensive GIS-based inventory of all operational ranges with the Army Operational Range Inventory. All real property that satisfies the definition of a military range as defined in DoDD 3200.15 and in Title 40, Section 266.201 of the Code of Federal Regulations is evaluated. The inventory serves as a base of information for supporting sustainable ranges management initiatives, and providing environmental analysis and mapping to range and training land programs.

The initial inventory of Army active and inactive ranges was completed in December 2002. The Active/Inactive Range Inventory recorded over 10,500 ranges on 479 installations and training sites worldwide. In June 2004, the Operational Range Inventory Sustainment (ORIS) project was established. Quality Assurance/Quality Control (QA/QC) measures are performed to ensure that the data is as accurate and precise as possible. An update of all installations and training sites having operational ranges will be completed in 2008, in accordance with DoDD 3200.15.

Data Elements, Sources, and Updates

The Army inventory follows previous review processes, and uses the ORIS database as its primary data source. Currently, a total of 478 installations and training sites have been updated. Next years report will contain updated data for all installations and training sites that have operational ranges.

Databases and Applications

Data collected for the inventory is stored in the Army Mapper (formerly known as the GIS Repository), the OACSIM geospatial database of record, and the HQDA repository for installation-related geospatial data. Aside from the range footprint, the inventory database contains a number of tabular data elements including range name, size, range uses, and year built. Range footprints and minimal attribute information are viewable by all Army Knowledge Online users in the Army Mapper's interactive on-line mapping application. A range query tool is currently being developed and will be available to all users through the mapping application.

In February 2007, the OACSIM established an Integrated Working Group (IWG) to resolve discrepancies between the Range Inventory and the OACSIM's real property database. The IWG has developed a plan of action that will resolve the discrepancies by eliminating the Range Inventory and consequently instituting a process for adding new range facilities into the Real Property Inventory.

4.9.2 Air Force Range Inventory Description

The Air Force Testing and Training Range Inventory is managed and administered by the Headquarters USAF Ranges and Airspace Division. The Inventory is comprised of four parts:

- U.S. air-to-ground ranges
- Overseas ranges operated by the Air Force
- Detailed SUA information
- Detailed MTR information

The inventory is based on data elements from a variety of sources, and is in GIS format. The format allows the inventory to be searched, filtered, and displayed on a map for quick analysis. Inventory elements are stored in a variety of formats, from tabular data to geographic information sources. MAJCOM reports are also used to update capabilities. Every 56 days, the airspace tables are updated with information from the NGA, while range information is continuously updated. The entire inventory receives an annual review.

4.9.3 Marine Corps Range Inventory Description

The Marine Corps Training and Education Command's Range and Training Area Management Division (TECOM/RTAM) is responsible for managing the Marine Corps range complex inventory. The Marine Corps' range complexes refer to a collection of training areas and ranges, airspace areas, and other designated attributes for training. The inventory provides a detailed list of land, air, sea, and undersea space that comprise the Marine Corps range complexes. The intent of the range inventory is to support Marine Corps range management and sustainment processes, including capabilities assessment, investment strategy, encroachment management, operational planning, and environmental management.

The Marine Corps first developed the inventory for the *2004 Sustainable Ranges Report* based on information available in the RTAMS. RTAMS is a web-enabled, institutional-level, centrally managed system. It provides Commanders, operating units, range managers, and all cross-Service users with a single source access for all range-related capabilities and resources. RTAMS uses established and developing data metrics and software. The range complex information available in RTAMS was the primary source for the initial range complex inventory. The 2008 Marine Corps inventory will follow previous review processes and use the RTAMS database and the RCMPs as primary data sources.

The Marine Corps range complex inventory is currently maintained on RTAMS, as well as in a spreadsheet format. It uses a number of data fields (name, claimant organization, location, size, and range type) and provides GIS data with numerous data layers. The Inventory is updated annually and has been significantly improved upon during the last few years due to the initiation of RCMPs which catalogue range complex baseline attributes and capabilities, and include a comprehensive inventory of ranges and SUA. The RTAMS inventory review process is led by TECOM/RTAM, using a QA/QC process to ensure inventory consistency and accuracy.

4.9.4 Navy Range Inventory Description

The Navy range complex inventory is a detailed list of land, air, sea, and undersea space that comprise the Navy range complexes. It encompasses major fleet training ranges, OPAREAs, SUA, and MRTFB sites, referred to as range complexes. The inventory does not capture individual ranges and training areas not associated with a range complex. The intent of the range inventory is to support Navy range management and sustainment processes, including capabilities assessment, investment strategy, encroachment management, operational planning, and environmental management.

The Navy inventory has improved over the years due to the initiation of the TAP Program, which included the preparation of RCMPs. RCMPs catalogue range complex baseline assets and capabilities, and include a comprehensive inventory of ranges, OPAREAs, and SUA.

OPNAV N43 first developed the inventory for the 2004 Sustainable Ranges Report based on multiple sources that included the Navy's Ranges to Readiness Study, active/inactive range survey (2000), Fleet Training Area/Range Directory (Naval Warfare Assessment Station, Corona, 2003), Fleet OPAREA Instruction, and FACSFAC Instructions. The inventory is currently maintained in a relational database, as part of the Tactical Training and Testing Ranges Repository and Management System (TRAMS), and in a spreadsheet format. As the inventory spreadsheet is updated, the TAP Repository (TAPR) database will be updated. Additional detail on the range complex inventory is provided as part of the RCMPs to include scheduling, operations, encroachment, and capabilities information. In the future, the inventory and associated information will be integrated into the TAPR.

The inventory is updated annually annual basis using the best available sources of information, as described above. The main source of information for the updates is RCMP, which will be updated biannually to coincide with the POM development cycle, beginning in FY2009. The updates will include an assessment of each range complex's inventory and capabilities. For the remaining range complexes, range instructions and manuals will be used to update the inventory.

The inventory review process involves a review by the United States Pacific Fleet and the United States Fleet Forces Command to ensure the most current information is reflected in the inventory. Additionally, the Navy has a QA/QC process that ensures consistency and accuracy of the inventory.

The Fleet Forces Command will use the inventory as the basis for the Navy training area geospatial library now under development in the TRAMS/Environmental Information Management System (TRAMS/EIMS) project. Space and Warfare Systems Center Charleston and Naval Facilities Engineering Command developed EIMS to meet a fleet requirement for "a single, comprehensive Navy GIS-based information management system and databases for operational and environmental planning to support operational requirements, at sea environmental issues, and range/OPAREAs compliance and encroachment concerns." TRAMS was originally developed as the TAPR with the goal of hosting all TAP-generated training area data, much of which is geospatial. However, the TAPR became TRAMS as the program moved beyond hosting only TAP data. The fleets recognized the need for a single authoritative geospatial library in EIMS, based on a comprehensive Navy training area inventory and built on maps provided by the NGA, DoD's mapping authority. The foundational maps from NGA will include training area boundaries, with all other geospatial information developed by TAP and other authoritative sources layered on top. NGA will provide web-based geospatial information so that when it updates training area boundaries, it will update the foundational maps in EIMS as well. Complete, foundational maps for all fleet ranges complexes are currently being worked on with the schedule dependant upon RCMP completion.

5 The Way Ahead

As DoD's SRI has continued to mature over the last six years, DoD and the Services have made significant progress in being able to identify and act upon the external pressures that constrain the use of training and testing range resources. Of particular importance have been the effective utilization of Section 2864a authorities and encroachment partnering activities, the progress made in further refining the comprehensive DoD-wide range inventory, and the development of clear criteria and standard methods for assessing the adequacy of range resources against current and anticipated training requirements. Looking to the future, DoD must build upon the early successes of the SRI while continually evaluating needs and requirements associated with a constantly changing environment to ensure the long-term sustainability of military range resources. The following subsections discuss measures that DoD believes will further enhance range capabilities, the management of range resources, and the overall effectiveness of the SRI.

5.1 Report Format

The *2008 Sustainable Ranges Report* is intended to serve as a baseline for future reports on the SRI. The report presents information in a more concise format, will provide Congress a consistent report that highlights the continued evolution of DoD's SRI, and allows progress against Congressional reporting requirements and internal goals and milestones to be more readily determined. The format will continue to be refined as needed to achieve a desired level of consistency in the presentation of critical policy and guidance documents, as well as status and updates on existing and emerging implementation tools.

5.2 Compatible Land Use/Encroachment Partnering Activities

The DoD will continue to work with Congress, other federal agencies, states, Native American tribes, local governments, NGOs, and other stakeholders to take full advantage of legislative and regulatory initiatives that support compatible land use and encroachment prevention around military installations. The DoD and the Services have found outreach and partnering on such issues to be the most effective way to address today's encroachment problems while minimizing future problems and ensuring the long-term sustainability of our range resources.

5.3 Use of Range Inventory and Encroachment and Capability Tools

The DoD will make greater use of its comprehensive range inventory and standardized assessment methodology to evaluate encroachment impacts and range capabilities in a manner that is consistent across the Services. The tools developed to date will assist DoD and Service leadership with

identifying at-risk ranges, recognizing emerging issues, and informing decisions about focusing new or additional range sustainment efforts. These actions will enhance the abilities of DoD and the Services to meet training requirements, and will allow for accurate and expedited responses to internal and Congressional requests for related information.

5.4 Management Reviews

The SRI has matured to the point that as with any complex initiative it would benefit from regular management reviews. While the current WIPT structure will remain in place, a formal review process is going to be instituted by ODUSD(P&R) in 2008 as a management tool. As part of this process, the previously established goals, actions, and milestones will be reviewed and assessed for their continued relevancy, and revised or replaced to more accurately reflect current and future program conditions and range requirements.

5.5 Overarching Data Management Strategy

Range data is currently stored in multiple formats across DoD and the Services. Given these characteristics, and the prominent role that the range inventory and encroachment and capability assessments play in the SRI, an overarching data management strategy is a critical component of the review process. It is envisioned that such a strategy will be developed under the Range Information Enterprise. Reporting range readiness up the Service chains and through the DRRS will likely be the primary focus of initial data management efforts conducted under this overarching data management strategy.

5.6 Reconsideration of Section 320 Reporting Requirements

The DoD believes that as the SRI and Service range sustainability programs continue to mature, the reporting requirements of FY2004 NDAA Section 320 (requirements that DoD report on encroachment and the impact of certain legal requirements on operational ranges) have been overcome by events, and should be reviewed and revoked by Congress.

The *REPI Report to Congress*, required separately under Section 2822 of the FY2006 NDAA, describes in significant detail DoD's efforts to address encroachment around military installations using Congressional authorities granted under Section 2684a, and as such, satisfies the intent of the Section 320 requirement to report on encroachment on military installations and ranges.

The DoD's RRPI legislative package, first submitted in 2002 as part of the FY2003 defense authorization proposal, clearly expresses concerns regarding the potential operational impacts attributable to specific and limited requirements of the CAA, RCRA, and CERCLA. These concerns have been articulated in subsequent fiscal year defense authorization proposals and previous Sustainable Ranges Reports, presented to Congress in various other forums, and are well established in the public record. While DoD has continued to submit the CAA, RCRA, and CERCLA provisions under RRPI to maximize training and readiness flexibility, the Services have not reported impacts from the legislation and implementing regulations in either the FY2007 Sustainable Ranges Report or in this year's update. In addition, the provisions were not formally submitted as part of the FY2007 and FY2008 defense authorization proposals.

Because the Section 320 requirement to report on encroachment is redundant with REPI reporting requirements, and the *Sustainable Ranges Report* explicitly evaluates encroachment on training and testing ranges via the capability and encroachment analysis, no additional value is added through inclusion of the requirement in the annual *Sustainable Ranges Report*. Likewise, for reasons discussed in previous paragraphs, DoD believes the Section 320 requirement to report on CAA, RCRA, and CERCLA adds no value to DoD's annual report on sustainable ranges and should also be reviewed and revoked by Congress.

A National Defense Authorization Act Language

The National Defense Authorization Act for Fiscal Year 2003

Sec. 366. Training Range Sustainment Plan, Global Status of Resources and Training System, and Training Range Inventory.

[a] Plan Required—(1) The Secretary of Defense shall develop a comprehensive plan for using existing authorities available to the Secretary of Defense and the Secretaries of the military departments to address training constraints caused by limitations on the use of military lands, marine areas, and airspace that are available in the United States and overseas for training of the Armed Forces.

[2] As part of the preparation of the plan, the Secretary of Defense shall conduct the following:

[A] An assessment of current and future training range requirements of the Armed Forces; and

[B] An evaluation of the adequacy of current Department of Defense resources (including virtual and constructive training assets as well as military lands, marine areas, and airspace available in the United States and overseas) to meet those current and future training range requirements.

[3] The plan shall include the following:

[A] Proposals to enhance training range capabilities and address any shortfalls in current Department of Defense resources identified pursuant to the assessment and evaluation conducted under paragraph (2);

[B] Goals and milestones for tracking planned actions and measuring progress;

[C] Projected funding requirements for implementing planned actions; and

[D] Designation of an office in the Office of the Secretary of Defense and in each of the military departments that will have lead responsibility for overseeing implementation of the plan.

[4] At the same time as the President submits to Congress the budget for fiscal year 2004, the Secretary of Defense shall submit to Congress a report describing the progress made in implementing this subsection, including:

[A] The plan developed under paragraph (1);

[B] The results of the assessment and evaluation conducted under paragraph (2); and

[C] Any recommendation that the Secretary may have for legislative or regulatory changes to address training constraints identified pursuant to this section.

[5] At the same time as the President submits to Congress the budget for each of fiscal years 2005 through FY2008, the Secretary shall submit to Congress a report describing the progress made in implementing the plan and any additional actions taken, or to be taken, to address training constraints caused by limitations on the use of military lands, marine areas, and airspace.

[b] Readiness Reporting Improvement—Not later than 30 June 2003, the Secretary of Defense, using existing measures within the authority of the Secretary, shall submit to Congress a report on the plans of the Department of Defense to improve the Global Status of

Resources and Training System to reflect the readiness impact that training constraints caused by limitations on the use of military lands, marine areas, and airspace have on specific units of the Armed Forces.

[c] Training Range Inventory—(1) The Secretary of Defense shall develop and maintain a training range inventory for each of the Armed Forces—

[A] To identify all available operation training ranges;

[B] To identify all training capacities and capabilities available at each training range; and

[C] To identify all training constraints caused by limitations on the use of military lands, marine areas, and airspace at each training range.

[2] The Secretary of Defense shall submit an initial inventory to Congress at the same time as the President submits the budget for fiscal year 2004, and shall submit an updated inventory to Congress at the same time as the President submits the budget for fiscal years 2005 through 2008.

[d] GAO Evaluation—The Secretary of Defense shall transmit copies of each report required by Subsections (a) and (b) to the Comptroller General. Within 60 days after receiving a report, the Comptroller General shall submit to Congress an evaluation of the report.

[e] Armed Forces Defined—In this section, the term "Armed Forces" means the Army, Navy, Air Force, and Marine Corps.

National Defense Authorization Act for Fiscal Year 2007

Sec. 348. Five-Year Extension of Annual Report on Training Range Sustainment Plan and Training Range Inventory.

Section 366 of the Bob Stump National Defense Authorization Act for Fiscal Year 2003 (Public Law 107-314; 116 Stat. 2522; 10 USC 113 note) is amended—

[1] in Subsections (a)(5) and (c)(2), by striking `fiscal years 2005 through 2008' and inserting `fiscal years 2005 through 2013'; and

[2] in Subsection (d), by striking `within 60 days of receiving a report' and inserting `within 90 days of receiving a report'.

The National Defense Authorization Act for Fiscal Year 2004

Sec. 320. Report Regarding Impact of Civilian Community Encroachment and Certain Legal Requirements on Military Installations and Ranges and Plan to Address Encroachment.

[a] Study Required—The Secretary of Defense shall conduct a study on the impact, if any, of the following types of encroachment issues affecting military installations and operational ranges:

[1] Civilian community encroachment on those military installations and ranges whose operational training activities, research, development, test, and evaluation activities, or other operational, test and evaluation, maintenance, storage, disposal, or other support functions require, or in the future may require, safety or operational buffer areas. The requirement for such a buffer area may be due to a variety of factors, including air operations, ordnance operations and storage, or other activities that generate or might generate noise, electromagnetic interference, ordnance arcs, or environmental impacts that require or may require safety or operational buffer areas.

[2] Compliance by the Department of Defense with State Implementation Plans for Air Quality under Section 110 of the Clean Air Act (42 USC 7410).

[3] Compliance by the Department of Defense with the Solid Waste Disposal Act (42 USC 6901 et seq.) and the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 USC 9601 et seq.).

[b] Matter to be Included with Respect to Civilian Community Encroachment—With respect to paragraph (1) of Subsection (a), the study shall include the following:

[1] A list of all military installations described in Subsection (a)(1) at which civilian community encroachment is occurring.

[2] A description and analysis of the types and degree of such civilian community encroachments at each military installation included on the list.

[3] An analysis, including views and estimates of the Secretary of Defense, of the current and potential future impact of such civilian community encroachment on operational training activities, research, development, test, and evaluation activities, and other significant operational, test

and evaluation, maintenance, storage, disposal, or other support functions performed by military installations included on the list. The analysis shall include the following:

[A] A review of training and testing ranges at military installations, including laboratories and technical centers of the military departments included on the list; and

[B] A description and explanation of the trends of such encroachment, as well as consideration of potential future readiness problems resulting from unabated encroachment.

[4] An estimate of the costs associated with the current and anticipated partnerships between the Department of Defense and non-Federal entities to create buffer zones to preclude further development around military installations included on the list, and the costs associated with the conveyance of surplus property around such military installations for purposes of creating buffer zones.

[5] Options and recommendations for possible legislative or budgetary changes necessary to mitigate current and anticipated future civilian community encroachment problems.

[c] Matters to Be Included With Respect to Compliance with Specified Laws—With respect to paragraphs (2) and (3) of Subsection (a), the study shall include the following:

[1] A list of all military installations and other locations at which the Armed Forces are encountering problems related to compliance with the laws specified in such paragraphs.

[2] A description and analysis of the types and degree of compliance problems encountered.

[3] An analysis, including views and estimates of the Secretary of Defense, of the current and potential future impact of such compliance problems on the following functions performed at military installations.

[A] Operational training activities.

[B] Research, development, test, and evaluation activities.

[C] Other significant operational, test and evaluation, maintenance, storage, disposal, or other support functions.

[4] A description and explanation of the trends of such compliance problems, as well as consideration of potential future readiness problems resulting from such compliance problems.

[d] Plan to Respond to Encroachment Issues—On the basis of the study conducted under Subsection (a), including the specific matter required to be addressed by Subsections (b) and (c), the Secretary of Defense shall prepare a plan to respond to the encroachment issues described in Subsection (a) affecting military installations and operational ranges.

[e] Reporting Requirements—The Secretary of Defense shall submit to the Committee on Armed Services of the Senate and the Committee on Armed Services of the House of Representatives the following reports regarding the study conducted under subsection (a), including the specific matters required to be addressed by subsections (b) and (c):

[1] Not later than January 31, 2004, an interim report describing the progress made in conducting the study and containing the information collected under the study as of that date.

[2] Not later than January 31, 2006, a report containing the results of the study and the encroachment response plan required by subsection (d).

[3] Not later than January 31, 2007, and each January 31 thereafter, through January 31, 2010 a report describing the progress made in implementing the encroachment response plan.

B Service Mission Area Descriptions and Definitions

Army

Movement and Maneuver—The related tasks and systems that move forces to achieve a position of advantage in relation to the enemy. It includes those tasks associated with employing forces in combination with direct fire or fire potential (maneuver), force projection (movement), and mobility and counter-mobility. Movement and maneuver are the means by which commanders concentrate combat power to achieve surprise, shock, momentum, and dominance. For the purposes of the encroachment and capability assessments discussed in Chapter 3 of this report, each range will be assessed for its ability to support three movements and maneuver task areas:

- Infantry
- Armor
- Aviation

Fire Support—The related tasks and systems that provide collective and coordinated use of Army indirect fires, joint fires, and offensive information operations. It includes those tasks associated with integrating and synchronizing the effects of these types of fires with the other operating functions to accomplish operational and tactical objectives. For the purposes of the encroachment and capability assessments discussed in Chapter 3 of this report, each range will be assessed for its ability to support two fire support task areas:

- Field Artillery
- Air Defense Artillery

Intelligence—The related tasks and systems that facilitate understanding of the enemy, terrain, weather, and civil considerations. It includes those tasks associated with intelligence, surveillance, and reconnaissance. The intelligence operating function is a flexible and adjustable architecture of procedures, personnel, organizations, and equipment that provide relevant information and products relating to the threat, civil populace, and environment to commanders.

Sustainment—The related tasks and systems that provide support and services to ensure freedom of action, extend operational reach, and prolong endurance. Sustainment facilitates uninterrupted operations through means of adequate logistic support. It is accomplished through supply systems, maintenance, and other services that ensure continuous support throughout an operation.

Command and Control—The related tasks and systems that support commanders in exercising authority and direction. It includes those tasks associated with acquiring friendly information, managing all relevant information, and directing and leading subordinates. Command and control has two components: the commander and the command and control system. Information systems—including communications systems, intelligence-support systems, and computer networks—form the backbone of command and control systems. They allow commanders to lead from anywhere in their AO. Through command and control, commanders initiate and integrate all operating functions.

Protection—The related tasks and systems that preserve the force so the commander can apply maximum combat power. Preserving the force includes protecting personnel (combatant and noncombatant), physical assets, and information of the United States and multinational partners. For the purposes of

the encroachment and capability assessments discussed in Chapter 3 of this report, each range will be assessed for its ability to support three protection task areas:

- Engineering
- Chemical
- Military Police

Navy

Strike Warfare (STW)—The set of friendly force air, surface, subsurface, and land-based offensive tactics and operations associated with identifying, targeting, and engaging fixed, mobile, and time-sensitive land-based targets using air-to-ground (A-G) weapons. The STW range also supports tactics and operations associated with manned and unmanned Tactical Airborne Reconnaissance, Unmanned Combat Air Vehicles, Suppression of Enemy Air Defenses (SEAD), Close Air Support (CAS), and engagement of fixed and mobile land-based targets using naval surface gunfire and sea-launched cruise missiles.

Electronic Combat (EC)—The set of friendly offensive and defensive tactics and operations associated with Electronic Attack and Electronic Protect activities. The EC range function supports identifying, degrading, or denying hostile forces the effective use of their battlefield surveillance, targeting radar and electro-optical systems, communications, counter-fire equipment, and electronically fused munitions. It is a subset of Command and Control Warfare.

Anti-Air Warfare (AAW)—The set of friendly force offensive and defensive surface-to-air (S-A) and air-to-air (A-A) tactics and operations associated with defending friendly air, surface, and land forces from emergent hostile air threats, whether launched from air, surface, or subsurface platforms. The AAW range function also supports the set of friendly force offensive A-A tactics and operations associated with gaining and maintaining air superiority or air supremacy of the battle space. The AAW range function supports the use of electronic decoys and electronic jammers used by friendly forces for the purpose of counter-targeting against airborne threats.

Anti-Surface Warfare (ASUW)—The set of friendly force air, surface, and subsurface offensive and defensive tactics and operations associated with detection, surveillance, and engagement of contacts, critical contacts of interest, and hostile at-sea surface forces. In addition to traditional training against large ships, the ASUW range function also supports a variety of training activities against small boats, swarm attacks, and fast-moving surface vessels. The ASUW range function may also support offensive tactics and operations against designated surface targets located in ports, harbors, and anchorages.

Mine Warfare (MW)—The set of friendly force air, surface, and subsurface offensive and defensive tactics and operations associated with mine-laying and Mine Counter Measures (MCM). Offensive minelaying operations aim to dislocate the enemy war efforts and improve the security of friendly sea lines of communications by destroying, or threatening to destroy, enemy seaborne forces. MCM includes active measures (to locate and clear mined areas), passive measures (to include small object avoidance and ship routing around high threat areas), and self-protective measures (ship signature reduction).

Amphibious Warfare (AMW)—The set of friendly force offensive and defensive tactics and operations associated with providing expeditionary forces capable of projecting power ashore from the sea to accomplish a specific objective. The AMW range function may support establishing and sustaining landing forces ashore for extended periods or putting landing forces ashore only for a short period of time before withdrawing them. The AMW range function supports virtually every type of ship, aircraft, weapon, special operations force, and landing force employed in concerted military efforts described by the Operational Maneuver from the Sea (OMFTS) doctrine, which includes Expeditionary Maneuver Warfare, and Ship to Objective Maneuver. As a result, the AMW range function supports tactics and operations associated with all phases of ESG and MEU missions using OMFTS, including both amphibious assault and vertical assault tactics. The AMW range function does not support specific post-landing tactics and operations.

Anti-Submarine (ASW)—The set of friendly force air, surface, and subsurface offensive and defensive tactics and operations associated with countering hostile and potentially hostile submarine threats. The ASW range function may support open-ocean, choke point, and littoral anti-submarine missions, including detection, classification, surveillance, localization, tracking, and attack.

Naval Special Warfare (NSW)—The set of friendly force air, surface, subsurface, and land-based offensive and defensive tactics and operations associated with the five principal NSW missions: Combating Terrorism, Counter Proliferation, Special Reconnaissance, Direct Action, and Unconventional Warfare. The NSW range function supports identifying, targeting, and engaging fixed, mobile, and time sensitive land-based targets using the entire inventory of NSW weapons.

Marine Corps

Individual Level Training: The set of core and core plus skills associated with the USMC Individual Training Standards (ITS) for each element of a Marine Air Ground Task Force (MAGTF). Accordingly, the Individual Level training range provides and supports the most basic training environment associated with the MAGTF Aviation Combat Element (ACE), Ground Combat Element (GCE) – and Combat Service Support Element (CSSE) – The Individual Level training range also reinforces basic infantry combat skills and supports those specific training requirements and skills associated with progressive USMC ITS and the program of instruction at each USMC Formal School.

Unit Level Training: The set of friendly force small unit offensive and defensive tactics and operations associated with expeditionary MAGTF forces against hostile or potentially hostile forces. The Unit Level training range supports all types of aircraft, weapons, special operations forces, landing forces, and ground forces employed in concerted military efforts described by the Marine Corps' Expeditionary Maneuver Warfare (EMW) doctrine, which includes Operational Maneuver from the Sea (OMFTS) and Ship to Objective Maneuver (STOM). It includes tactics and operations associated with all training phases of small unit level missions of a MAGTF.

Marine Expeditionary Unit Level Training: The set of friendly force offensive and defensive tactics and operations associated with expeditionary MAGTF forces against hostile or potentially hostile forces. The MEU Level training range supports all types of aircraft, weapons, special operations forces, landing forces, and ground forces employed in concerted military presence and engagement efforts described by the USMC's EMW doctrine, to include OMFTS and STOM.

Marine Expeditionary Brigade Level Training: The set of friendly force offensive and defensive tactics and operations associated with small-scale contingency expeditionary MAGTF forces against hostile or potentially hostile forces. The MEB Level training range supports all types of aircraft, weapons, special operations forces, landing forces, and ground forces that will be employed in concerted crisis response military efforts that are characterized by high-density, high-risk operations.

Air Force

Strategic Attack—Offensive action conducted by command authorities aimed at generating effects that most directly achieve our national security objectives by affecting the adversary's leadership, conflict-sustaining resources, and strategy.

Counterair—Operations to attain and maintain a desired degree of air superiority by the destruction, degradation, or disruption of enemy forces. Counterair's two elements, offensive counterair (OCA) and defensive counterair (DCA), enable friendly use of contested airspace and disable the enemy's offensive air and missile capabilities to reduce the threat posed against friendly forces.

Counterspace—Kinetic and nonkinetic operations conducted to attain and maintain a desired degree of space superiority by the destruction, degradation, or disruption of enemy space capability. Counterspace operations have an offensive and a defensive component.

Counterland—Air and space operations against enemy land force capabilities to dominate the surface environment and prevent the opponent from doing the same. Counterland is composed of two discrete air operations for engaging enemy land forces: air interdiction, in which air maneuver indirectly supports land maneuver or directly supports an air scheme of maneuver, and close air support (CAS), in which air maneuver directly supports land maneuver.

Countersea—Specialized collateral tasks performed in the maritime environment such as sea surveillance, antiship warfare, protection of sea lines of communications through antisubmarine and antiair warfare, aerial minelaying, and air refueling in support of naval campaigns with the objective of gaining control of the medium and, to the extent possible, dominating operations either in conjunction with naval forces or independently.

Information Operations—Actions taken to influence, affect, or defend information, systems, and/or decision-making of an adversary's "observe-orient-decide-act" (OODA) loop while protecting our own.

Electronic Combat Support—Actions involving the use of electromagnetic and directed energy to control the electromagnetic spectrum or to attack the enemy across the electromagnetic battlespace. The operational elements of electronic warfare operations are electronic attack, electronic protection, and electronic warfare support.

Command and Control—The battlespace management process of planning, directing, coordinating, and controlling forces and operations. It involves the integration of a system of procedures, organizational structures, personnel, equipment, facilities, information, and communications designed to enable a commander to exercise authority and direction across the range of military operations.

Air Drop—Air Drop is the delivery of personnel and materiel from an aircraft in flight to a drop zone (DZ). Most airdrop procedures use parachutes to deliver loads to the ground, such as heavy equipment, container delivery systems, and personnel. Another airdrop procedure is free fall delivery. This involves dropping relatively small items, such as packaged meals or unbreakable objects like hay bales without the use of a parachute. Airdrop allows commanders to project and sustain combat power into areas where a suitable ALZ or a ground transportation network may not be available.

Air Refueling—The in-flight transfer of fuel between tanker and receiver aircraft.

Spacelift—The delivery of satellites, payloads, and materiel to space.

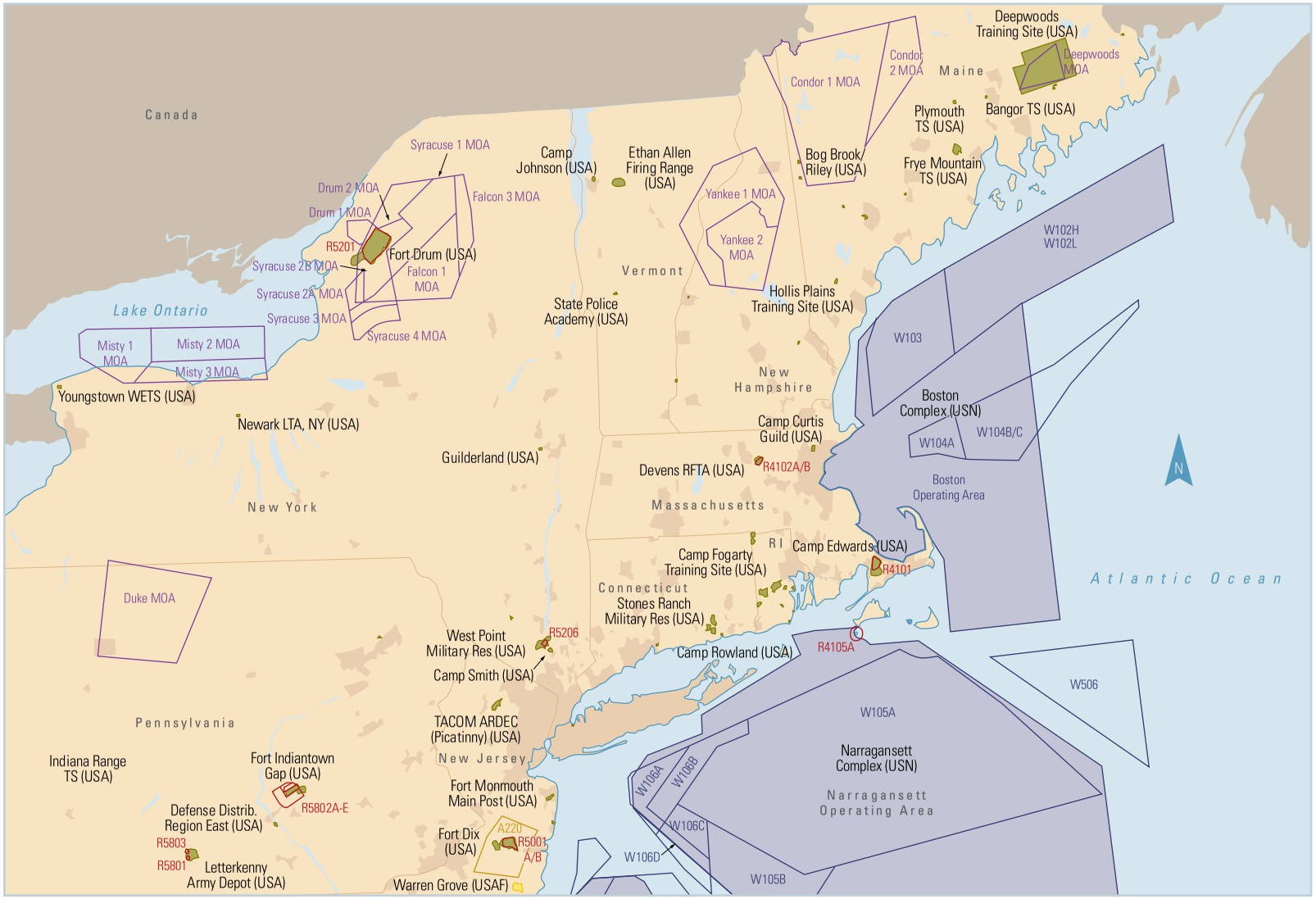
Special Operations—The use of special airpower operations (denied territory mobility, surgical firepower, and special tactics) to conduct the following special operations functions: unconventional warfare, direct action, special reconnaissance, counterterrorism, foreign internal defense, psychological operations, and counterproliferation.

Intelligence, Surveillance & Reconnaissance—Activities involving the systematic observation of air, space, surface, or subsurface areas, places, persons, or things, by visual, aural, electronic, photographic, or other means; obtaining specific information about the activities and resources of an enemy or potential enemy through visual observation or other detection methods; or by securing data concerning the meteorological, hydrographic, or geographic characteristics of a particular area; and the resulting product of such activities.

C

Maps and Inventory of Ranges, Range Complexes, and Special Use Areas

Figure C-1 DoD Regional Range Complexes: Northeast



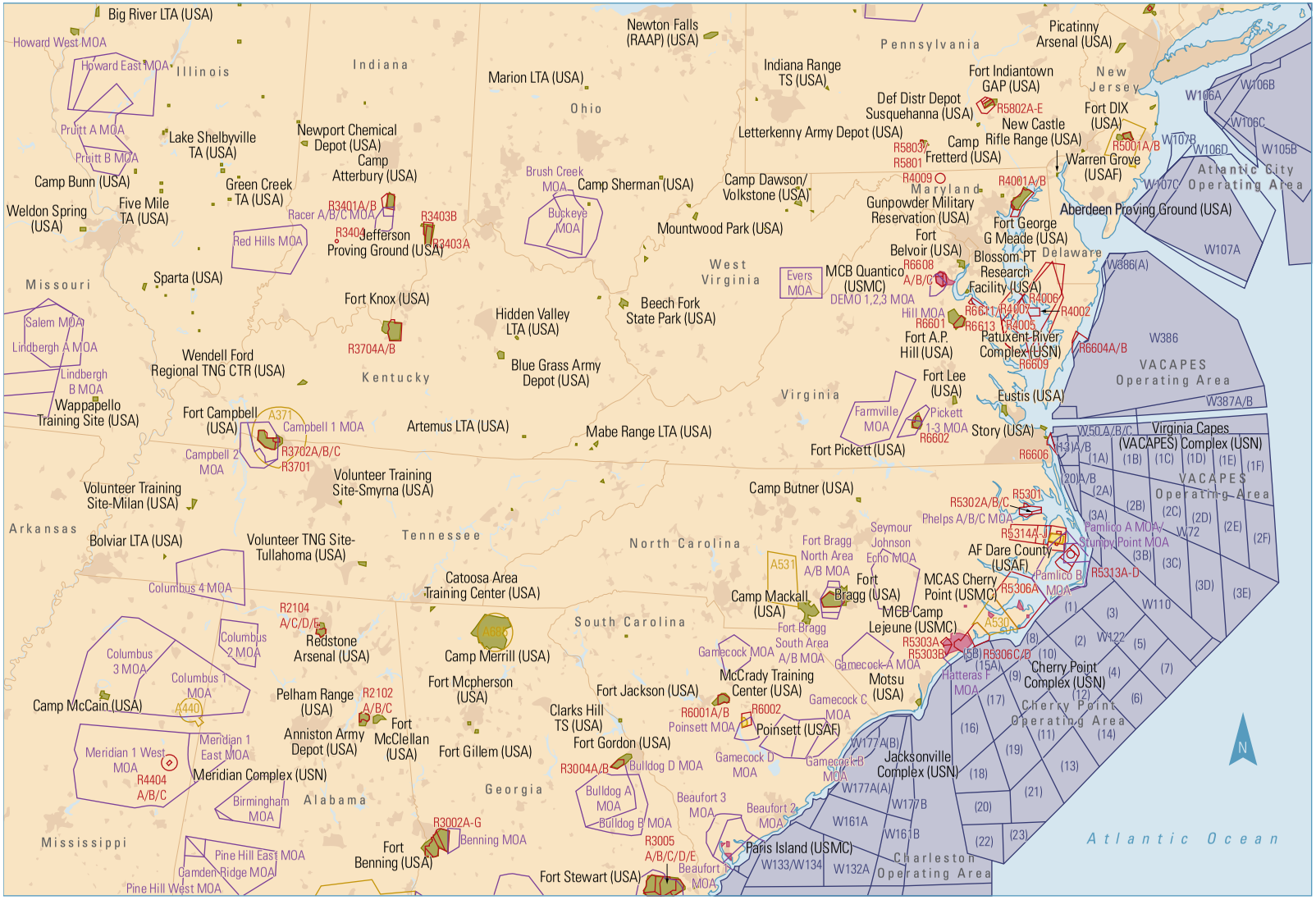
Testing and Training Ranges
Northeast

DoD Ranges
- U.S. Marine Corps
- U.S. Navy
- U.S. Air Force
- U.S. Army

Special Use Airspace
- Alert Area
- Military Operating Area (MOA)
- Restricted Area
- Warning Area
- Surface/Subsurface Operating Areas
- U.S. Census Populated Places

Sources: IVT, DISDI, 2004; ORIS, USAEC, 2007; NGA DAFIF, 2008; Atlantic Fleet Inst 3120.26E, 1993.

Figure C-2 DoD Regional Range Complexes: Mid-Atlantic



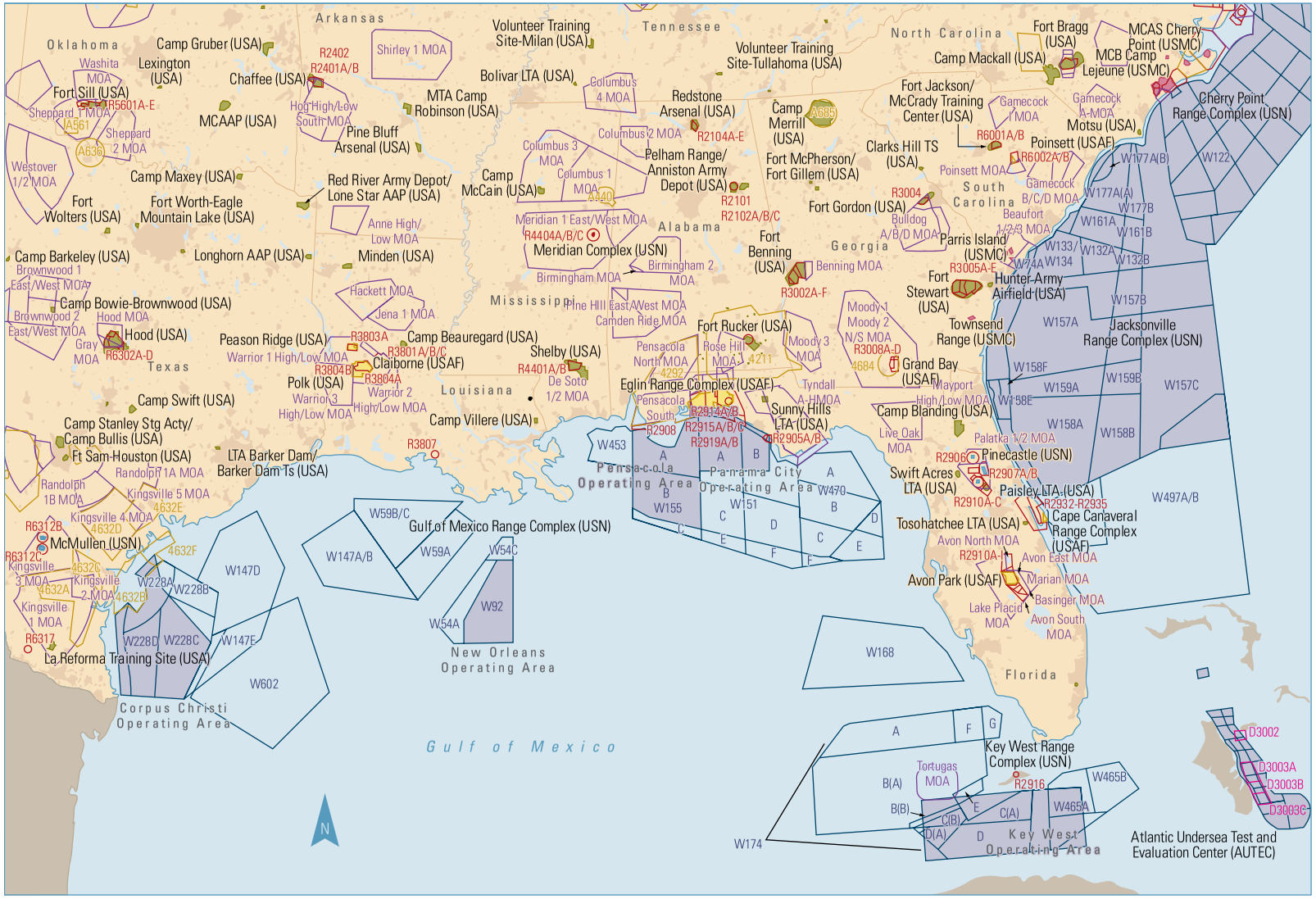
Testing and Training Ranges
Mid-Atlantic

DoD Ranges
- U.S. Marine Corps
- U.S. Navy
- U.S. Air Force
- U.S. Army

Special Use Airspace
- Alert Area
- Military Operating Area (MOA)
- Restricted Area
- Warning Area
- Surface/Subsurface Operating Areas
- U.S. Census Populated Places

Sources: IVT, DISDI, 2004; ORIS, USAEC, 2007; NGA DAFIF, 2008; Atlantic Fleet Inst 3120.26E, 1993.

Figure C-3 DoD Regional Range Complexes: Southeast



Testing and Training Ranges
Southeast

DoD Ranges
- U.S. Marine Corps
- U.S. Navy
- U.S. Air Force
- U.S. Army
- Surface/Subsurface Operating Areas

Special Use Airspace
- Alert Area
- Military Operating Area (MOA)
- Restricted Area
- Warning Area
- Danger and Prohibited Area

- U.S. Census Populated Places

50 0 Nautical Miles

100 50 0 Miles

Sources: IVT, DISDI, 2004; ORIS, USAEC, 2007; NGA DAFIF, 2008; Atlantic Fleet Inst 3120.26E, 1993

Figure C-4 DoD Regional Range Complexes: Northwest

Testing and Training Ranges
Northwest

DoD Ranges
- U.S. Marine Corps
- U.S. Navy
- U.S. Air Force
- U.S. Army

Special Use Airspace
- Alert Area
- Military Operating Area (MOA)
- Restricted Area
- Warning Area
- Surface/Subsurface Operating Areas
- U.S. Census Populated Places

50 0 Nautical Miles

50 0 Miles

Sources: IVT, DISDI, 2004; ORIS, USAEC, 2007; NGA DAFIF, 2008; FACSFAC San Diego Inst 3120.1E, 2000

Figure C-5 DoD Regional Range Complexes: Southwest

Testing and Training Ranges
Southwest

DoD Ranges
- U.S. Marine Corps
- U.S. Navy
- U.S. Air Force
- U.S. Army

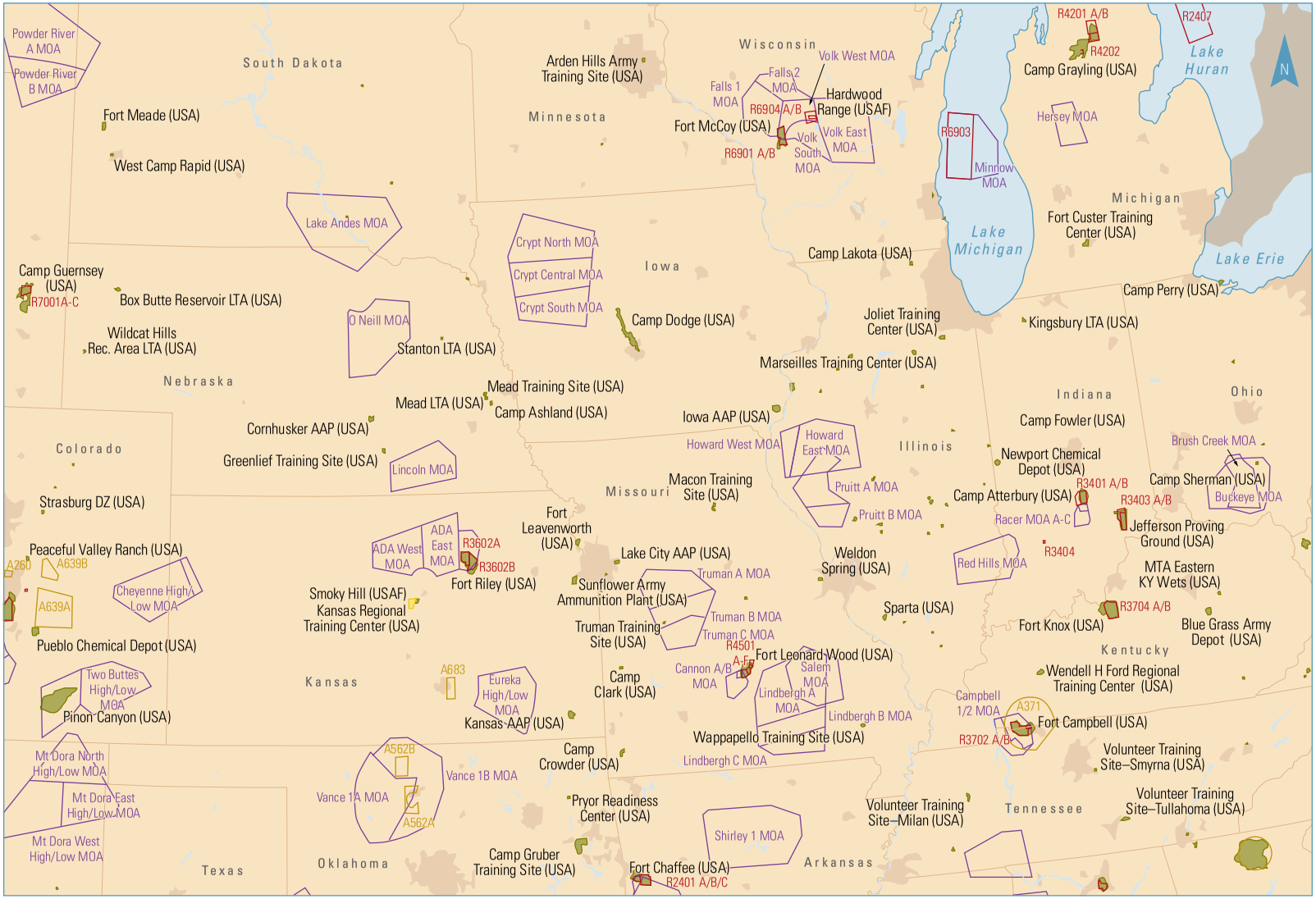
Special Use Airspace
- Alert Area
- Military Operating Area (MOA)
- Restricted Area
- Warning Area
- Surface/Subsurface Operating Areas
- U.S. Census Populated Places

50 0 Nautical Miles

50 0 Miles

Sources: IVT, DISDI, 2004; ORIS, USAEC, 2007; NGA DAFIF, 2008; FACSFAC San Diego Inst 3120.1E, 2000

Figure C-6 DoD Regional Range Complexes: Midwest



Testing and Training Ranges
Midwest

DoD Ranges
- U.S. Marine Corps
- U.S. Navy
- U.S. Air Force
- U.S. Army

Special Use Airspace
- Alert Area
- Military Operating Area (MOA)
- Restricted Area
- Warning Area
- Surface/Subsurface Operating Areas
- U.S. Census Populated Places

50 0 Nautical Miles

100 50 0 Kilometers

Sources: IVT, DISDI, 2004; ORIS, USAEC, 2007; NGA DAFIF, 2008; Atlantic Fleet Inst 3120.26E, 1993

Figure C-7 DoD Regional Range Complexes: Alaska

Testing and Training Ranges
Alaska

DoD Ranges
- U.S. Marine Corps
- U.S. Navy
- U.S. Air Force
- U.S. Army
- Surface/Subsurface Operating Areas

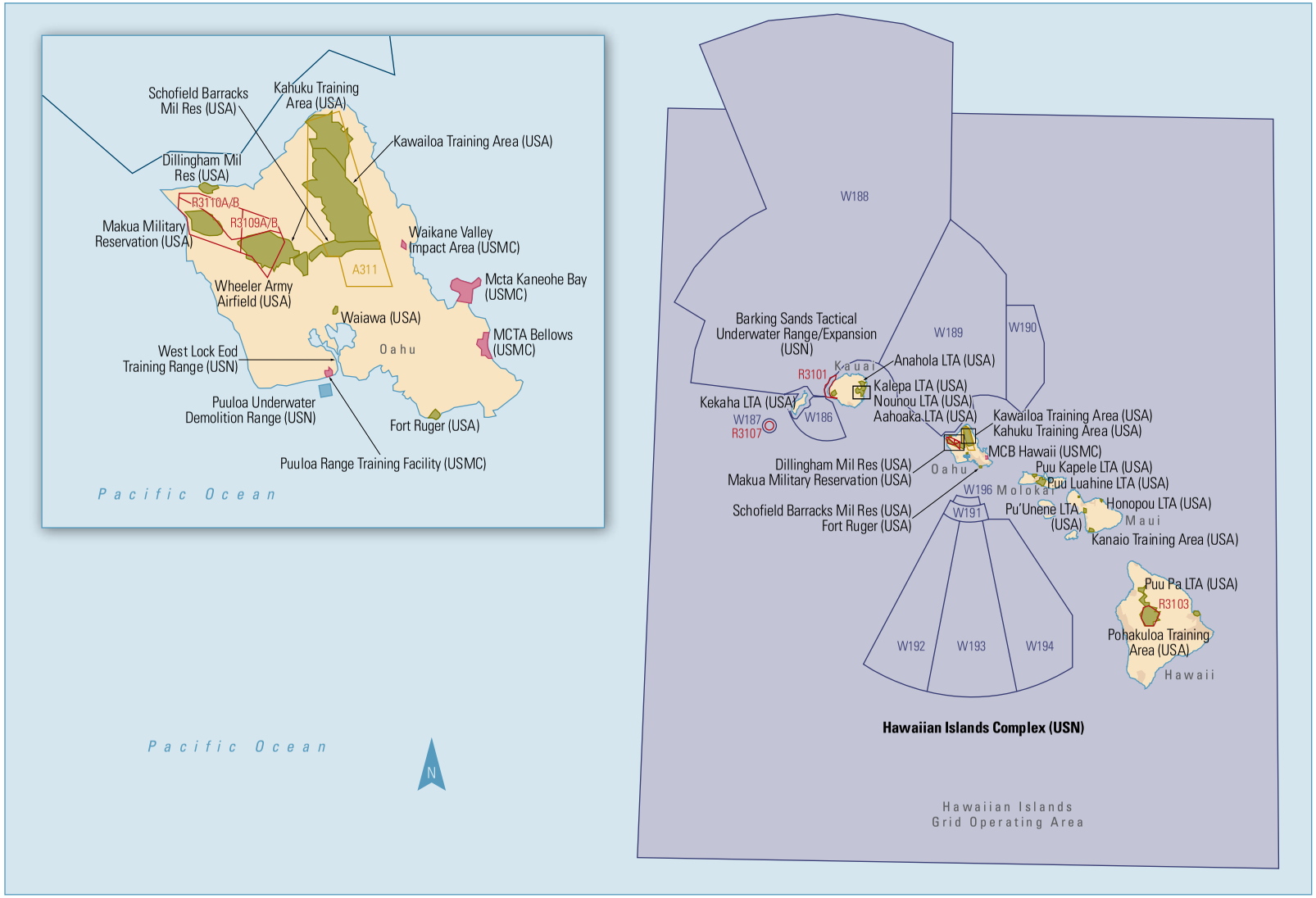
Special Use Airspace
- Alert Area
- Military Operating Area (MOA)
- Restricted Area
- Warning Area
- Danger and Prohibited Area

- U.S. Census Populated Places

50 0 Nautical Miles
100 50 0 Miles

Sources: IVT, DISDI, 2004; ORIS, USAEC, 2007; NGA DAFIF, 2008; FACSFAC San Diego Inst. 3120.1E, 2000.

Figure C-8 DoD Regional Range Complexes: Hawaii



Testing and Training Ranges
Hawaii

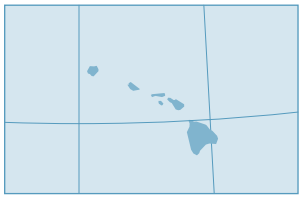
DoD Ranges
- U.S. Marine Corps
- U.S. Navy
- U.S. Air Force
- U.S. Army
- Surface/Subsurface Operating Areas

Special Use Airspace
- Alert Area
- Military Operating Area (MOA)
- Restricted Area
- Warning Area
- Danger and Prohibited Area

- U.S. Census Populated Places

50 0 Nautical Miles

100 50 0 Miles



Sources: IVT, DISDI, 2004; ORIS, USAEC, 2007; NGA DAFIF, 2008; FACSFAC San Diego Inst. 3120.1E, 2000.

Figure C-9 DoD Regional Range Complexes: Europe

Army Ranges

1 Appendorf LTA
2 Area Ockstadt
3 Babenhausen LTA
4 Bamberg Army Airfield
5 Bamberg TA G
6 Baumholder LTA
7 Benelux TSC
8 Boeblingen LTA
9 Breitenwald LTA
10 Burgebrach LTA
11 Bug LTA
12 Butzbach LTA
13 Camp Darby
14 Camp Pond Training Area
15 Cao Malnisio
16 Cellina-Meduna
17 Conn Barracks
18 Dittelbrunn
19 Ederle
20 Fahr River Crossing
21 Foce Del Reno
22 Foce Fume Serchio
23 Fontaniva
24 Friedberg LTA
25 Gerlachshausen Swim Site
26 Giessen Depot Training Area
27 Grafenwoehr Training Area
28 Grossauheim
29 Grossostheim LTA
30 Harvey Barracks
31 Hohe Warte
32 Hohenfels
33 Kattervach Kaserne
34 Klosterforst
35 Kunigundenruh LTA
36 Lampertheim Training Area
37 Larson Barracks
38 Longare
39 LTA 6910
40 Mainz-Layenhof
41 Messel Small Arms Range
42 Michelfeld
43 Monte Carpegna
44 Monte Ciaurlec
45 Monte Romano
46 Oberdachstetten LTA
47 Oftersheim Small Arms Range
48 P-Series
49 Pfaendhausen
50 Podeldorf LTA
51 Ray Barracks Training Area
52 Reese Range Complex
53 Rheinblick LTA
54 Riverside
55 Rivoli Bianchi
56 Roman Hill
57 Rottershausen
58 San Giorgio
59 Sand Dunes
60 Santa Severa
61 Schweinheim-Aschaffenburg LTA
62 Schwetzingen LTA
63 South Hauptsmoor LTA
64 Sulzheim
65 T-Series
66 Tiergarten
67 Urlas LTA
68 Wackernheim Small Arms Ranges
69 Warner Barracks

Testing and Training Ranges
Europe

DoD Ranges

- U.S. Marine Corps
- U.S. Navy
- U.S. Air Force
- U.S. Army
- Surface/Subsurface Operating Areas

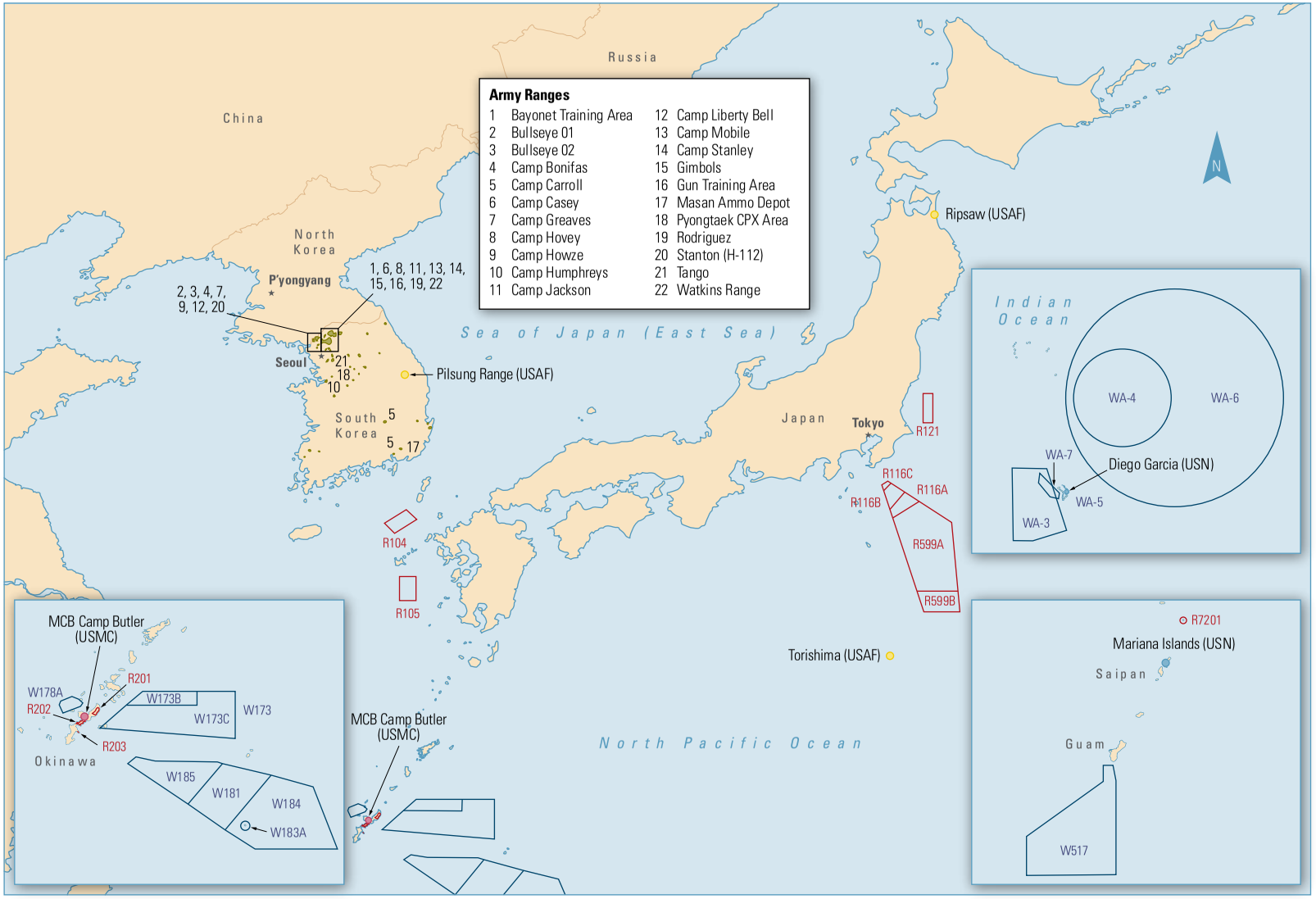
Special Use Airspace

- Alert Area
- Military Operating Area (MOA)
- Restricted Area
- Warning Area
- Danger and Prohibited Area

- U.S. Census Populated Places

50 0 Nautical Miles
100 50 0 Miles

Figure C-10 DoD Regional Range Complexes: West Pacific and Indian Ocean



Testing and Training Ranges
West Pacific and Indian Ocean

DoD Ranges

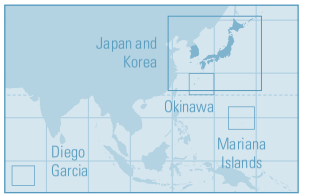
- U.S. Marine Corps
- U.S. Navy
- U.S. Air Force
- U.S. Army
- Surface/Subsurface Operating Areas

Special Use Airspace

- Alert Area
- Military Operating Area (MOA)
- Restricted Area
- Warning Area
- Danger and Prohibited Area

- U.S. Census Populated Places

50 0 Nautical Miles
100 50 0 Miles



Sources: IVT, DISDI, 2004; ORIS, USAEC, 2007; NGA DAFIF, 2008; Atlantic Fleet Inst 3120.26E, 1993

Table C-1 Range Complex Inventory

Training and Testing Range Complex Inventory

Military Service	Range Complex	United States (US) or Overseas (OS)	State or Country	Command/ Component	Range Description				Range Type											
					Land Area for Ranges (acres)	Special Use Airspace (sq nm)	Sea Surface Area (sq nm)	Underwater Tracking Area (sq nm)	Air-to-Air or Air-to-Surface	Air-to-Ground	Land Maneuver	Land Impact Area	Land Firing Range	C2W/EW	Ocean Operating Area	MOUT	Underwater Tracking Range	Amphibious Area	Other
Army	Fort Richardson	US	AK	USARPAC	54,541	163	0	0	N	N	Y	Y	Y	N	N	N	N	N	Y
	Fort Wainwright	US	AK	USARPAC	922,589	0	0	0	N	N	N	Y	Y	N	N	Y	N	N	Y
	Fort Benning	US	GA	TRADOC	168,119	422	0	0	N	N	Y	Y	Y	N	N	Y	N	N	Y
	Fort Bliss	US	TX	TRADOC	1,096,153	1,597	0	0	N	N	Y	Y	Y	N	N	N	N	N	Y
	Fort Bragg	US	NC	FORSCOM	142,985	1,718	0	0	N	N	Y	Y	Y	N	N	Y	N	N	Y
	Fort Carson/Pinon Canyon	US	CO	FORSCOM	358,504	1,153	0	0	N	N	Y	Y	Y	N	N	Y	N	N	Y
	Fort Drum	US	NY	FORSCOM	98,524	299	0	0	N	N	Y	Y	Y	N	N	Y	N	N	Y
	Dillingham MIL RES	US	HI	USARPAC	600	0	0	0	N	N	Y	N	N	N	N	N	N	N	Y
	Kahuka Training Area	US	HI	USARPAC	8,833	0	0	0	N	N	Y	N	N	N	N	N	N	N	Y
	Kawailoa Training Area	US	HI	USARPAC	23,455	0	0	0	N	N	Y	N	N	N	N	N	N	N	Y
	Makua MIL RES	US	HI	USARPAC	4,228	0	0	0	N	N	N	Y	Y	N	N	N	N	N	Y
	Pohakuloa Training Area	US	HI	USARPAC	109,950	0	0	0	N	N	Y	Y	Y	N	N	N	N	N	Y
	Schofield Barracks MIL RES	US	HI	USARPAC	11,442	0	0	0	N	N	Y	Y	Y	N	N	Y	N	N	Y
	Fort Hood	US	TX	FORSCOM	199,758	500	0	0	N	N	Y	Y	Y	N	N	Y	N	N	Y
	Fort Irwin	US	CA	FORSCOM	585,638	560	0	0	N	N	Y	Y	Y	N	N	N	N	N	Y
	Fort Knox	US	KY	TRADOC	101,220	113	0	0	N	N	Y	Y	Y	N	N	Y	N	N	Y
	Orchard (Gowen Field) Training Area	US	ID	ARNG	138,847	0	0	0	N	N	Y	Y	Y	N	N	N	N	N	Y
	Fort Pickett	US	VA	ARNG	38,699	161	0	0	N	N	Y	Y	Y	N	N	Y	N	N	Y
	Fort Polk	US	LA	FORSCOM	138,126	5,471	0	0	N	N	Y	Y	Y	N	N	Y	N	N	Y
	Camp Ripley	US	MN	ARNG	50,929	0	0	0	N	N	Y	Y	Y	N	N	Y	N	N	Y
	Camp Shelby	US	MS	ARNG	133,193	0	0	0	N	N	Y	Y	Y	N	N	N	N	N	Y
	Fort Sill	US	OK	TRADOC	85,002	153	0	0	N	N	Y	Y	Y	N	N	N	N	N	Y
	Fort Stewart	US	GA	FORSCOM	274,291	556	0	0	N	N	Y	Y	Y	N	N	Y	N	N	Y
	White Sands Missile Range	US	NM	ATEC	3,531,715	7,321	0	0	N	N	N	Y	Y	N	N	N	N	N	Y
	Yakima Training Center	US	WA	FORSCOM	324,313	0	0	0	N	N	Y	Y	Y	N	N	N	N	N	Y
	Yuma Proving Ground	US	AZ	ATEC	1,033,361	1,500	0	0	N	N	Y	N	Y	N	N	N	N	N	Y
	Aberdeen Proving Ground	US	MD	AMC	64,250	133	0	0	N	N	Y	N	Y	N	N	N	N	N	Y

Training and Testing Range Complex Inventory

Military Service	Range Complex	United States (US) or Overseas (OS)	State or Country	Command/ Component	Range Description				Range Type											
					Land Area for Ranges (acres)	Special Use Airspace (sq nm)	Sea Surface Area (sq nm)	Underwater Tracking Area (sq nm)	Air-to-Air or Air-to-Surface	Air-to-Ground	Land Maneuver	Land Impact Area	Land Firing Range	C2W/EW	Ocean Operating Area	MOUT	Underwater Tracking Range	Amphibious Area	Other
Army	Fort A.P. Hill	US	VA	MDW	74,263	928	0	0	N	N	Y	Y	Y	N	N	N	N	N	Y
	Camp Atterbury	US	IN	ARNG	31,889	0	0	0	N	N	Y	Y	Y	N	N	N	N	N	Y
	Camp Blanding	US	FL	ARNG	68,543	0	0	0	N	N	Y	Y	Y	N	N	Y	N	N	Y
	Fort Campbell	US	KY, TN	FORSCOM	94,121	931	0	0	N	N	Y	Y	Y	N	N	Y	N	N	Y
	Fort Dix	US	NJ	USARC	28,002	104	0	0	N	N	Y	Y	Y	N	N	N	N	N	Y
	Dugway Proving Ground	US	UT	ATEC	763,093	0	0	0	N	N	Y	Y	Y	N	N	N	N	N	Y
	Camp Grayling	US	MI	ARNG	147,711	8,680	0	0	N	N	Y	Y	Y	N	N	N	N	N	Y
	Camp Gruber	US	OK	ARNG	46,887	0	0	0	N	N	Y	N	Y	N	N	N	N	N	Y
	Fort Indiantown Gap	US	PA	ARNG	14,869	0	0	0	N	N	Y	Y	Y	N	N	Y	N	N	Y
	Fort Jackson	US	SC	TRADOC	29,532	0	0	0	N	N	Y	Y	Y	N	N	N	N	N	Y
	Fort Leonard Wood	US	MO	TRADOC	53,502	175	0	0	N	N	Y	Y	Y	N	N	N	N	N	Y
	Fort Lewis	US	WA	FORSCOM	77,577	0	0	0	N	N	Y	Y	Y	N	N	Y	N	N	Y
	Fort McClellan	US	AL	ARNG	40	0	0	0	N	N	Y	N	N	N	N	Y	N	N	Y
	Fort McCoy	US	WI	USARC	135,601	0	0	0	N	N	Y	Y	Y	N	N	N	N	N	Y
	Camp San Luis Obispo	US	CA	ARNG	4,852	0	0	0	N	N	Y	Y	Y	N	N	N	N	N	Y
	Fort Riley	US	KS	FORSCOM	92,209	107	0	0	N	N	Y	Y	Y	N	N	Y	N	N	Y
	Camp Roberts	US	CA	ARNG	41,051	64	0	0	N	N	Y	Y	Y	N	N	N	N	N	Y
	Fort Rucker	US	AL	TRADOC	58,204	0	0	0	N	N	Y	Y	Y	N	N	N	N	N	Y
	Camp Beauregard	US	LA	ARNG	12,558	0	0	0	N	N	Y	Y	Y	N	N	N	N	N	Y
	Bog Brook/Riley Deepwoods Training Site	US	ME	ARNG	341,015	0	0	0	N	N	Y	N	Y	N	N	Y	N	N	Y
	Camp Bowie	US	TX	ARNG	8,697	0	0	0	N	N	Y	N	Y	N	N	N	N	N	Y
	Biak Training Center	US	OR	ARNG	27,801	0	0	0	N	N	Y	N	Y	N	N	N	N	N	Y
	Camp Crowder	US	MO	ARNG	4,098	0	0	0	N	N	Y	Y	Y	N	N	N	N	N	Y
	Fort Custer Training Center	US	MI	ARNG	7,487	0	0	0	N	N	Y	Y	Y	N	N	Y	N	N	Y
	Camp Dawson	US	WV	ARNG	4,363	0	0	0	N	N	Y	Y	Y	N	N	Y	N	N	Y
	Ethan Allen Firing Range	US	VT	ARNG	10,686	0	0	0	N	N	Y	Y	Y	N	N	N	N	N	Y
	Camp Edwards	US	MA	ARNG	13,285	13	0	0	N	N	Y	Y	Y	N	N	N	N	N	Y
	Eustis/Fort Story	US	VA	TRADOC	3,923	0	0	0	N	N	Y	Y	Y	N	N	N	N	N	Y

Training and Testing Range Complex Inventory

Military Service	Range Complex	United States (US) or Overseas (OS)	State or Country	Command/ Component	Range Description				Range Type											
					Land Area for Ranges (acres)	Special Use Airspace (sq nm)	Sea Surface Area (sq nm)	Underwater Tracking Area (sq nm)	Air-to-Air or Air-to-Surface	Air-to-Ground	Land Maneuver	Land Impact Area	Land Firing Range	C2W/EW	Ocean Operating Area	MOUT	Underwater Tracking Range	Amphibious Area	Other
Army	Fort Gordon	US	GA	TRADOC	49,149	0	0	0	N	N	Y	Y	Y	N	N	N	N	N	Y
	Camp Grafton	US	ND	TRADOC	11,380	0	0	0	N	N	Y	N	Y	N	N	N	N	N	Y
	Camp Guernsey	US	WY	ARNG	35,062	46	0	0	N	N	Y	Y	Y	N	N	N	N	N	Y
	Hunter-Liggit	US	CA	USARC	153,872	113	0	0	N	N	Y	N	Y	N	N	N	N	N	Y
	Keaukhana MIL RES	US	HI	ARNG	434	0	0	0	N	N	Y	Y	Y	N	N	N	N	N	N
	Fort Lee	US	VA	TRADOC	3,097	69	0	0	N	N	Y	Y	Y	N	N	N	N	N	Y
	Limestone Hills Training Area	US	MT	ARNG	19,120	0	0	0	N	N	Y	N	Y	N	N	N	N	N	Y
	Camp McCain	US	MS	ARNG	12,741	0	0	0	N	N	Y	N	Y	N	N	N	N	N	Y
	McCrady Training Center	US	SC	ARNG	14,506	0	0	0	N	N	Y	N	Y	N	N	N	N	N	Y
	Camp Minden	US	LA	ARNG	13,637	0	0	0	N	N	Y	N	Y	N	N	N	N	N	N
	Navajo	US	AZ	ARNG	28,349	0	0	0	N	N	Y	N	Y	N	N	N	N	N	Y
	Parks RFTA	US	CA	USARC	1,985	0	0	0	N	N	Y	Y	Y	N	N	N	N	N	Y
	Redstone Arsenal	US	AL	AMC	25,505	25	0	0	N	N	Y	N	Y	N	N	N	N	N	N
	Camp Perry	US	OH	ARNG	343	0	0	0	N	N	Y	Y	Y	N	N	N	N	N	Y
	Camp Rilea	US	OR	ARNG	4,188	0	0	0	N	N	Y	N	Y	N	N	Y	N	N	Y
	Camp Robinson	US	AR	ARNG	30,837	0	0	0	N	N	Y	Y	Y	N	N	Y	N	N	Y
	Fort Sam Houston/Camp Bullis	US	TX	MEDCOM	27,600	0	0	0	N	N	Y	Y	Y	N	N	Y	N	N	Y
	Camp Santiago	US	PR	ARNG	12,044	0	0	0	N	N	Y	Y	Y	N	N	N	N	N	Y
	Wendell H. Ford Regional Training Center	US	KY	ARNG	7,174	0	0	0	N	N	Y	Y	Y	N	N	N	N	N	Y
	West Point MIL RES	US	NY	USMA	14,101	4	0	0	N	N	Y	Y	Y	N	N	N	N	N	Y
	Camp Williams	US	UT	ARNG	25,000	0	0	0	N	N	Y	Y	Y	N	N	Y	N	N	Y
	Stewart River	US	AK	ARNG	25,519	0	0	0	N	N	Y	N	Y	N	N	N	N	N	N
	Camp Butner	US	NC	ARNG	4,550	0	0	0	N	N	Y	Y	Y	N	N	N	N	N	Y
	TS Caswell	US	ME	ARNG	1,094	0	0	0	N	N	Y	N	Y	N	N	N	N	N	N
	Catoosa	US	TN	ARNG	1,515	0	0	0	N	N	Y	Y	Y	N	N	N	N	N	Y
	Camp Clark	US	MO	ARNG	997	0	0	0	N	N	Y	Y	Y	N	N	N	N	N	Y
	Fort Devens	US	MA	USARC	4,588	0	0	0	N	N	Y	Y	Y	N	N	N	N	N	Y
	MTA Camp Dodge	US	IA	ARNG	4,025	0	0	0	N	N	Y	Y	Y	N	N	Y	N	N	Y

Training and Testing Range Complex Inventory

Military Service	Range Complex	United States (US) or Overseas (OS)	State or Country	Command/ Component	Range Description				Range Type										
					Land Area for Ranges (acres)	Special Use Airspace (sq nm)	Sea Surface Area (sq nm)	Underwater Tracking Area (sq nm)	Air-to-Air or Air-to-Surface	Air-to-Ground	Land Maneuver	Land Impact Area	Land Firing Range	C2W/EW	Ocean Operating Area	MOUT	Underwater Tracking Range	Amphibious Area	Other
Army	Florence Training Site	US	AZ	ARNG	25,489	61	0	0	N	N	Y	Y	Y	N	N	N	N	N	Y
	Fort William Henry Harrison	US	MT	ARNG	6,314	0	0	0	N	N	Y	N	Y	N	N	Y	N	N	Y
	Camp Ashland - Greenleaf Training Site	US	NE	ARNG	4,263	0	0	0	N	N	Y	N	Y	N	N	N	N	N	Y
	Macon Training Site	US	MT	ARNG	3,062	0	0	0	N	N	Y	N	Y	N	N	N	N	N	Y
	Marseilles Training Site	US	IL	ARNG	2,617	0	0	0	N	N	Y	Y	Y	N	N	N	N	N	Y
	Camp Maxey	US	TX	ARNG	6,562	0	0	0	N	N	Y	Y	Y	N	N	N	N	N	Y
	McAlester AAP	US	OK	AMC	2,245	0	0	0	N	N	Y	N	Y	N	N	N	N	N	Y
	Milan Volunteer Training Site	US	TN	ARNG	2,391	0	0	0	N	N	Y	N	Y	N	N	N	N	N	Y
	Roswell	US	NM	ARNG	5,376	0	0	0	N	N	Y	N	Y	N	N	N	N	N	N
	Smith	US	NY	ARNG	1,763	0	0	0	N	N	Y	Y	Y	N	N	N	N	N	Y
	Kansas Regional Training Site (Smokey Hills)	US	KS	ARNG	3,404	0	0	0	N	N	Y	Y	Y	N	N	N	N	N	Y
	Stones Ranch MIL RES	US	CT	ARNG	5,753	0	0	0	N	N	Y	N	Y	N	N	N	N	N	Y
	Tullahoma MIL RES	US	TN	ARNG	6,553	0	0	0	N	N	Y	N	Y	N	N	N	N	N	Y
	Camp Villere	US	LA	ARNG	654	0	0	0	N	N	Y	N	Y	N	N	N	N	N	Y
	Wappapellots	US	MO	ARNG	2,187	0	0	0	N	N	Y	N	Y	N	N	N	N	N	Y
	Camp Wismer	US	WS	ARNG	3,319	0	0	0	N	N	Y	N	Y	N	N	N	N	N	Y
	Anniston Army Depot	US	AL	AMC	88	0	0	0	N	N	N	N	Y	N	N	N	N	N	Y
	Arden Hills Army Training Site	US	MN	ARNG	1,796	0	0	0	N	N	Y	N	N	N	N	N	N	N	Y
	Auburn	US	ME	ARNG	203	0	0	0	N	N	Y	N	Y	N	N	N	N	N	Y
	Austin Training Property	US	NE, SD	ARNG	409	0	0	0	N	N	N	N	N	N	N	N	N	N	Y
	Bangor Training Center	US	ME	ARNG	189	0	0	0	N	N	Y	N	Y	N	N	N	N	N	Y
	Barker Dam Training Site	US	TX	ARNG	572	0	0	0	N	N	Y	N	N	N	N	N	N	N	Y
	Belton LTA	US	MO	USARC	461	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	Black Mountain	US	NM	ARNG	2,114	0	0	0	N	N	Y	N	Y	N	N	N	N	N	N
	Blossom Point Research Facility	US	MD	AMC	1,643	0	0	0	N	N	Y	N	Y	N	N	N	N	N	Y
	Blue Grass Army Depot	US	KY	AMC	175	0	0	0	N	N	Y	N	Y	N	N	N	N	N	Y
	Buckman	US	FL	ARNG	68	0	0	0	N	N	N	N	N	N	N	N	N	N	Y
	Bucksnort Gun Club	US	MO	ARNG	10	0	0	0	N	N	N	N	Y	N	N	N	N	N	N

Training and Testing Range Complex Inventory

Military Service	Range Complex	United States (US) or Overseas (OS)	State or Country	Command/ Component	Range Description				Range Type										
					Land Area for Ranges (acres)	Special Use Airspace (sq nm)	Sea Surface Area (sq nm)	Underwater Tracking Area (sq nm)	Air-to-Air or Air-to-Surface	Air-to-Ground	Land Maneuver	Land Impact Area	Land Firing Range	C2W/EW	Ocean Operating Area	MOUT	Underwater Tracking Range	Amphibious Area	Other
	Buhl Training Site	US	ID	ARNG	162	0	0	0	N	N	Y	N	Y	N	N	N	N	N	N
	Camp Adair	US	OR	ARNG	523	0	0	0	N	N	Y	N	Y	N	N	N	N	N	Y
	Camp Curtis Guild	US	MA	ARNG	623	0	0	0	N	N	Y	N	Y	N	N	N	N	N	Y
	Camp Davis	US	ND	ARNG	82	0	0	0	N	N	Y	N	Y	N	N	N	N	N	Y
	Camp Fogarty Training Site	US	RI	ARNG	17,755	0	0	0	N	N	Y	Y	Y	N	N	N	N	N	Y
	Camp Fretterd	US	MD	ARNG	424	0	0	0	N	N	Y	N	N	N	N	N	N	N	Y
	Camp Hartell	US	CT	ARNG	31	0	0	0	N	N	Y	N	Y	N	N	N	N	N	Y
	Camp Johnson	US	VT	ARNG	591	0	0	0	N	N	Y	N	Y	N	N	N	N	N	Y
	Camp Mackall	US	NC	FORSCOM	8,403	0	0	0	N	N	Y	N	N	N	N	N	N	N	Y
	Camp Merrill	US	GA	TRADOC	340,358	0	0	0	N	N	Y	N	Y	N	N	N	N	N	N
	Camp Murray	US	WA	ARNG	113	0	0	0	N	N	N	N	N	N	N	N	N	N	Y
	Camp Rowland	US	CT	ARNG	38	0	0	0	N	N	N	N	N	N	N	N	N	N	Y
	Camp Sherman	US	NC	ARNG	430	0	0	0	N	N	Y	Y	Y	N	N	N	N	N	N
	Camp Stanley Storage Activity	US	TX	AMC	82	0	0	0	N	N	N	N	Y	N	N	N	N	N	N
	Camp Swift	US	TX	ARNG	11,663	0	0	0	N	N	Y	N	Y	N	N	N	N	N	Y
	Camp Varnum	US	RI	ARNG	18	0	0	0	N	N	Y	N	N	N	N	N	N	N	Y
	Camp Withycombe	US	OR	ARNG	165	0	0	0	N	N	Y	N	N	N	N	N	N	N	Y
	Casper Armory	US	WY	ARNG	27	0	0	0	N	N	Y	N	Y	N	N	N	N	N	N
	Chaffee	US	AR	ARNG	63,519	81	0	0	N	N	Y	Y	Y	N	N	N	N	N	Y
	Clinton Training Site	US	PA	USARC	154	0	0	0	N	N	Y	N	Y	N	N	N	N	N	Y
	Colorado Springs Training Site	US	CO	ARNG	309	1	0	0	N	N	N	N	Y	N	N	N	N	N	Y
	Cpt. Euripides Rubio Jr. Center	US	PR	USARC	51	0	0	0	N	N	N	N	N	N	N	N	N	N	Y
	De Bremond Training Center	US	NM	ARNG	1,343	0	0	0	N	N	Y	N	Y	N	N	N	N	N	N
	Defense Distribution Depot Susquehanna	US	PA	AMC	0	0	0	0	N	N	N	N	Y	N	N	N	N	N	Y
	Deseret Chemical Depot	US	UT	AMC	549	0	0	0	N	N	N	N	Y	N	N	N	N	N	Y
	Dona Ana Range Camp	US	NM	ARNG	64	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	Duffield Industrial Park	US	VA	ARNG	74	0	0	0	N	N	N	N	N	N	N	N	N	N	Y

Training and Testing Range Complex Inventory

Military Service	Range Complex	United States (US) or Overseas (OS)	State or Country	Command/ Component	Range Description				Range Type										
					Land Area for Ranges (acres)	Special Use Airspace (sq nm)	Sea Surface Area (sq nm)	Underwater Tracking Area (sq nm)	Air-to-Air or Air-to-Surface	Air-to-Ground	Land Maneuver	Land Impact Area	Land Firing Range	C2W/EW	Ocean Operating Area	MOUT	Underwater Tracking Range	Amphibious Area	Other
Army	East Haven Rifle Range	US	CT	ARNG	113	0	0	0	N	N	Y	Y	N	N	N	N	N	N	Y
	Eastern Kentucky Gun Club	US	KY	ARNG	13	0	0	0	N	N	Y	N	Y	N	N	N	N	N	N
	Floyd Edsal Training Center	US	NV	ARNG	1,525	0	0	0	N	N	Y	N	Y	N	N	N	N	N	Y
	Fort Allen	US	PR	ARNG	423	0	0	0	N	N	Y	N	N	N	N	N	N	N	Y
	Fort Belvoir	US	VA	MDW	2,178	0	0	0	N	N	Y	Y	N	N	N	N	N	N	Y
	Fort George G. Meade	US	MD	MDW	129	0	0	0	N	N	Y	N	N	N	N	N	N	N	Y
	Fort Gillem	US	GA	FORSCOM	472	0	0	0	N	N	Y	N	N	N	N	N	N	N	Y
	Fort Huachuca	US	AZ	TRADOC	73,840	815	0	0	N	N	Y	Y	Y	N	N	N	N	N	Y
	Fort Leavenworth	US	KS	TRADOC	4,285	0	0	0	N	N	Y	N	Y	N	N	N	N	N	Y
	Fort Meade	US	SD	ARNG	6,090	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	Fort Monmouth	US	NJ	AMC	104	0	0	0	N	N	Y	N	Y	N	N	Y	N	N	Y
	Fort Nathaniel Greene	US	RI	USARC	96	0	0	0	N	N	Y	N	Y	N	N	N	N	N	Y
	Fort Wingate Missile Launch Complex	US	NM	ATEC	6,526	0	0	0	N	N	N	N	Y	N	N	N	N	N	N
	Fort Wolters	US	TX	ARNG	4,061	0	0	0	N	N	Y	Y	Y	N	N	N	N	N	Y
	Frye Mountain Training Site	US	ME	ARNG	5,137	0	0	0	N	N	Y	N	Y	N	N	N	N	N	N
	Fort McPherson	US	GA	FORSCOM	21	0	0	0	N	N	Y	N	Y	N	N	N	N	N	Y
	Gardiner	US	ME	ARNG	106	0	0	0	N	N	Y	N	Y	N	N	N	N	N	Y
	Greely	US	AK	USARPAC	631,643	0	0	0	N	N	Y	Y	Y	N	N	Y	N	N	Y
	Green River Launch Complex	US	UT	ATEC	3,944	0	0	0	N	N	N	N	Y	N	N	N	N	N	N
	Guilderland	US	NY	ARNG	291	0	0	0	N	N	N	N	Y	N	N	N	N	N	Y
	Gunpowder MIL RES	US	MD	ARNG	227	0	0	0	N	N	Y	N	N	N	N	N	N	N	Y
	Happy Valley (Carlsbad)	US	NM	ARNG	721	0	0	0	N	N	Y	N	Y	N	N	N	N	N	N
	Hawthorne Army Depot	US	NV	AMC	35,633	0	0	0	N	N	Y	Y	Y	N	N	N	N	N	N
	Henry H. Cobb Jr. - Pelham	US	AL	ARNG	22,139	0	0	0	N	N	Y	Y	Y	N	N	N	N	N	Y
	Hollis Plains Training Site	US	ME	ARNG	412	0	0	0	N	N	Y	N	Y	N	N	N	N	N	Y
	Hunter Army Airfield	US	GA	FORSCOM	2,742	0	0	0	N	N	Y	N	Y	N	N	N	N	N	Y
	Idaho Falls Training Site	US	ID	ARNG	1,081	0	0	0	N	N	Y	N	Y	N	N	N	N	N	N
	Idaho Launch Complex	US	ID	ATEC	315	0	0	0	N	N	N	N	Y	N	N	N	N	N	N

Training and Testing Range Complex Inventory

Military Service	Range Complex	United States (US) or Overseas (OS)	State or Country	Command/ Component	Range Description				Range Type										
					Land Area for Ranges (acres)	Special Use Airspace (sq nm)	Sea Surface Area (sq nm)	Underwater Tracking Area (sq nm)	Air-to-Air or Air-to-Surface	Air-to-Ground	Land Maneuver	Land Impact Area	Land Firing Range	C2W/EW	Ocean Operating Area	MOUT	Underwater Tracking Range	Amphibious Area	Other
Army	Ike Skelton Training Site	US	MO	ARNG	24	0	0	0	N	N	Y	N	Y	N	N	N	N	N	Y
	Indiana Range Wet Site	US	PA	ARNG	165	0	0	0	N	N	Y	N	Y	N	N	N	N	N	N
	Iowa AAP	US	IA	AMC	1,338	0	0	0	N	N	Y	N	Y	N	N	N	N	N	Y
	Jefferson Proving Ground	US	IN	AMC	1,050	0	0	0	N	N	N	Y	N	N	N	N	N	N	N
	John Sevier Range	US	TN	ARNG	6	0	0	0	N	N	N	N	Y	N	N	N	N	N	N
	Joliet Training Center	US	IL	USARC	3,446	0	0	0	N	N	Y	Y	Y	N	N	N	N	N	Y
	Kanaio Training Center	US	HI	ARNG	4,612	0	0	0	N	N	Y	N	Y	N	N	N	N	N	N
	Kansas AAP	US	KS	AMC	157	0	0	0	N	N	Y	N	Y	N	N	N	N	N	N
	Kekaha	US	HI	ARNG	61	0	0	0	N	N	Y	N	Y	N	N	N	N	N	N
	Keystone Rifle Range	US	CA	ARNG	189	0	0	0	N	N	Y	N	Y	N	N	N	N	N	N
	Keystone Training Site	US	PA	USARC	452	0	0	0	N	N	Y	N	Y	N	N	N	N	N	Y
	La Reforma Training Site	US	TX	ARNG	4,264	0	0	0	N	N	Y	N	Y	N	N	N	N	N	N
	Lake City AAP	US	MO	AMC	696	0	0	0	N	N	Y	N	Y	N	N	N	N	N	Y
	Lander Local Training Area	US	WY	ARNG	1,353	0	0	0	N	N	Y	N	Y	N	N	N	N	N	N
	Lauderick Creek MIL RES	US	MD	ARNG	1,065	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	Letterkenny Army Depot	US	PA	AMC	9	0	0	0	N	N	N	N	Y	N	N	N	N	N	N
	Lone Star AAP	US	TX	AMC	232	0	0	0	N	N	N	N	Y	N	N	N	N	N	N
	Los Alamitos JFTB	US	CA	ARNG	397	0	0	0	N	N	N	N	Y	N	N	N	N	N	Y
	Lovell Local Training Area	US	WY	ARNG	3,606	0	0	0	N	N	Y	N	Y	N	N	N	N	N	Y
	Mabe Range LTA	US	VA	ARNG	1,726	0	0	0	N	N	N	N	Y	N	N	N	N	N	Y
	Mead Training Site	US	NE	ARNG	1,185	0	0	0	N	N	Y	N	Y	N	N	N	N	N	Y
	Mobridge Training Area	US	SD	ARNG	119	0	0	0	N	N	Y	N	N	N	N	N	N	N	Y
	MOTSU	US	NC	MTMC	7	0	0	0	N	N	Y	N	Y	N	N	N	N	N	N
	MTA SMR CP Pendleton	US	VA	ARNG	89	0	0	0	N	N	Y	N	Y	N	N	N	N	N	Y
	New Castle Rifle Range	US	DE	ARNG	93	0	0	0	N	N	Y	N	Y	N	N	N	N	N	Y
	Newton Falls (RAAP)	US	OH	ARNG	2,879	0	0	0	N	N	Y	N	Y	N	N	N	N	N	Y
	NGTC at Sea Girt	US	NJ	ARNG	120	0	0	0	N	N	Y	Y	Y	N	N	N	N	N	Y
	NH NG Training Site	US	NH	ARNG	94	0	0	0	N	N	N	N	N	N	N	N	N	N	Y

Training and Testing Range Complex Inventory

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					Land Area for Ranges (acres)	Special Use Airspace (sq nm)	Sea Surface Area (sq nm)	Underwater Tracking Area (sq nm)	Air-to-Air or Air-to-Surface	Air-to-Ground	Land Maneuver	Land Impact Area	Land Firing Range	C2W/EW	Ocean Operating Area	MOUT	Underwater Tracking Range	Amphibious Area	Other
Army	Onate Training Site	US	NM	ARNG	158	0	0	0	N	N	Y	N	N	N	N	N	N	N	Y
	Papago Park MIL RES	US	AZ	ARNG	103	0	0	0	N	N	N	N	Y	N	N	N	N	N	Y
	Pearson Ridge NC	US	LA	FORSCOM	33,456	0	0	0	N	N	N	Y	Y	N	N	N	N	N	N
	Picatinny Arsenal	US	NJ	AMC	4,545	0	0	0	N	N	Y	N	Y	N	N	N	N	N	Y
	Pine Bluff Arsenal	US	AR	AMC	99	0	0	0	N	N	N	Y	Y	N	N	N	N	N	Y
	Plymouth Training Site	US	ME	ARNG	306	0	0	0	N	N	Y	N	Y	N	N	N	N	N	Y
	Pocatello Training Site	US	ID	ARNG	718	0	0	0	N	N	Y	N	Y	N	N	N	N	N	N
	Pueblo Chemical Depot	US	CO	AMC	94	0	0	0	N	N	N	N	Y	N	N	N	N	N	Y
	Puu Luahine (Red Hill) LTA	US	HI	ARNG	8,314	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	Racine County Line Range	US	WI	ARNG	15	0	0	0	N	N	N	N	Y	N	N	N	N	N	N
	Red River Army Depot	US	TX	AMC	165	0	0	0	N	N	N	N	Y	N	N	N	N	N	Y
	Redfield Training Area	US	SD	ARNG	174	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	Ridgeway	US	PA	ARNG	7	0	0	0	N	N	Y	N	Y	N	N	N	N	N	Y
	Rio Rancho	US	NM	ARNG	96	0	0	0	N	N	N	N	Y	N	N	N	N	N	Y
	Scranton (Leach Range)	US	PA	AMC	101	0	0	0	N	N	Y	N	Y	N	N	N	N	N	N
	Seagoville LTA	US	TX	USARC	198	0	0	0	N	N	Y	N	Y	N	N	N	N	N	Y
	Sheridan Local TA	US	WY	ARNG	3,980	0	0	0	N	N	Y	N	Y	N	N	N	N	N	N
	Sierra Army Depot	US	CA	AMC	4,722	0	0	0	N	N	Y	N	Y	N	N	N	N	N	Y
	Sioux Falls Airport Training Area	US	SD	ARNG	15	0	0	0	N	N	Y	N	Y	N	N	N	N	N	N
	Springfield Training Site	US	IL	ARNG	98	0	0	0	N	N	N	N	Y	N	N	N	N	N	Y
	St. Anthony Training Site	US	ID	ARNG	3,336	0	0	0	N	N	Y	N	Y	N	N	N	N	N	N
	St. George Training Area	US	UT	ARNG	369	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	Sunflower Army Ammunition Plant	US	KS	AMC	493	0	0	0	N	N	Y	N	N	N	N	N	N	N	Y
	Tooele Army Depot	US	UT	AMC	1,450	0	0	0	N	N	N	N	Y	N	N	N	N	N	N
	Truman Training Site	US	MO	ARNG	565	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	TS NAS Fallon RG B19	US	NV	ARNG	132	0	0	0	N	N	N	N	Y	N	N	N	N	N	Y
	Tucumcari Training Site	US	NM	ARNG	63	0	0	0	N	N	Y	N	Y	N	N	N	N	N	N
	Twin Falls Training Site	US	ID	ARNG	312	0	0	0	N	N	Y	N	Y	N	N	N	N	N	N

Training and Testing Range Complex Inventory

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					Land Area for Ranges (acres)	Special Use Airspace (sq nm)	Sea Surface Area (sq nm)	Underwater Tracking Area (sq nm)	Air-to-Air or Air-to-Surface	Air-to-Ground	Land Maneuver	Land Impact Area	Land Firing Range	C2W/EW	Ocean Operating Area	MOUT	Underwater Tracking Range	Amphibious Area	Other
Army	Ukumehame Firing Range	US	HI	ARNG	39	0	0	0	N	N	Y	N	Y	N	N	N	N	N	N
	Umatilla Chemical Depot	US	OR	AMC	9	0	0	0	N	N	N	N	Y	N	N	N	N	N	Y
	Vail Tree Farm LTA	US	WA	USARC	166,332	0	0	0	N	N	N	N	N	N	N	N	N	N	Y
	Van Vleck Ranch	US	CA	ARNG	2,685	0	0	0	N	N	Y	N	N	N	N	N	N	N	Y
	Smyrna Volunteer Training Site	US	TN	ARNG	557	0	0	0	N	N	Y	N	Y	N	N	N	N	N	Y
	Waco Training Area	US	MT	ARNG	4,763	0	0	0	N	N	Y	N	Y	N	N	N	N	N	N
	Watkin Armory	US	CO	ARNG	5	0	0	0	N	N	N	N	N	N	N	N	N	N	Y
	Weldon Spring	US	MO	ARNG	1,659	0	0	0	N	N	Y	N	Y	N	N	N	N	N	Y
	West Camp Rapid	US	SD	ARNG	566	0	0	0	N	N	Y	N	Y	N	N	N	N	N	Y
	West Silver Spring Complex	US	WI	USARC	9	0	0	0	N	N	N	N	N	N	N	N	N	N	Y
	Westminster	US	VT	ARNG	38	0	0	0	N	N	Y	N	Y	N	N	N	N	N	N
	Wildcat Hills State Rec. Area TA	US	NE	ARNG	853	0	0	0	N	N	Y	N	Y	N	N	N	N	N	N
	Williston Wets	US	ND	ARNG	345	0	0	0	N	N	Y	N	Y	N	N	N	N	N	N
	WV DNR Elk River WMA TA	US	WV	ARNG	277	0	0	0	N	N	Y	N	Y	N	N	N	N	N	Y
	WV DNR McClintic WMA TA	US	WV	ARNG	54	0	0	0	N	N	Y	N	Y	N	N	N	N	N	N
	Youngstown Wets	US	NY	ARNG	848	0	0	0	N	N	Y	N	Y	N	N	N	N	N	Y
	Grafenwoehr	OS	Germany	USAREUR	52,281	0	0	0	N	N	Y	Y	Y	N	N	N	N	N	Y
	Hofenfels	OS	Germany	USAREUR	38,981	0	0	0	N	N	Y	N	Y	N	N	Y	N	N	Y
	Area I (North)	OS	Korea	EUSA	41,495	0	0	0	N	N	Y	Y	Y	N	N	Y	N	N	Y
	Area II (Northwest)	OS	Korea	EUSA	115	0	0	0	N	N	N	N	Y	N	N	N	N	N	Y
	Area III (Central)	OS	Korea	EUSA	113	0	0	0	N	N	N	N	Y	N	N	N	N	N	Y
	Area IV (South)	OS	Korea	EUSA	722	0	0	0	N	N	Y	Y	Y	N	N	N	N	N	Y
	Friedberg LTA	OS	Germany	USAREUR	8,519	0	0	0	N	N	Y	N	Y	N	N	N	N	N	Y
	Schweinfurt	OS	Germany	USAREUR	6,326	0	0	0	N	N	Y	Y	Y	N	N	N	N	N	Y
	Wuerzburg	OS	Germany	USAREUR	3,308	0	0	0	N	N	Y	N	Y	N	N	Y	N	N	Y
	Ansbach LTA	OS	Germany	USAREUR	899	0	0	0	N	N	Y	N	Y	N	N	N	N	N	Y
	Aschaffenbu RG LTA	OS	Germany	USAREUR	1,337	0	0	0	N	N	Y	N	Y	N	N	N	N	N	Y
	Baumholder	OS	Germany	USAREUR	188	0	0	0	N	N	Y	Y	Y	N	N	Y	N	N	Y

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Army	Boeblingen	OS	Germany	USAREUR	1,125	0	0	0	N	N	Y	N	Y	N	N	Y	N	N	Y
	Breitenwald	OS	Germany	USAREUR	205	0	0	0	N	N	Y	N	Y	N	N	N	N	N	Y
	Camp Darby	OS	Italy	USAREUR	135	0	0	0	N	N	N	N	N	N	N	N	N	N	Y
	Campo Pond TA	OS	Germany	USAREUR	366	0	0	0	N	N	Y	N	Y	N	N	N	N	N	Y
	Cao Malnisio	OS	Italy	USAREUR	4,098	0	0	0	N	N	Y	Y	Y	N	N	N	N	N	Y
	Cellina-Meduna	OS	Italy	USAREUR	11,558	0	0	0	N	N	Y	N	Y	N	N	N	N	N	Y
	Conn Barracks	OS	Germany	USAREUR	127	0	0	0	N	N	N	N	Y	N	N	N	N	N	Y
	Ederle	OS	Italy	USAREUR	11	0	0	0	N	N	Y	N	Y	N	N	N	N	N	Y
	Foce del Reno	OS	Italy	USAREUR	8,941	0	0	0	N	N	N	Y	Y	N	N	N	N	N	N
	Foce Fume Serchio	OS	Italy	USAREUR	163	0	0	0	N	N	N	Y	Y	N	N	N	N	N	N
	Lampertheim Training Area	OS	Germany	USAREUR	3,942	0	0	0	N	N	Y	Y	Y	N	N	N	N	N	Y
	Longare	OS	Italy	USAREUR	15	0	0	0	N	N	Y	N	N	N	N	N	N	N	Y
	Messell Small Arms Range	OS	Germany	USAREUR	25	0	0	0	N	N	N	N	Y	N	N	N	N	N	Y
	Monte Carpegna	OS	Italy	USAREUR	6,488	0	0	0	N	N	Y	Y	N	N	N	N	N	N	N
	Monte Ciarlec	OS	Italy	USAREUR	7,925	0	0	0	N	N	Y	Y	N	N	N	N	N	N	N
	Monte Romano	OS	Italy	USAREUR	10,207	0	0	0	N	N	Y	Y	Y	N	N	N	N	N	Y
	Offersheim Small Arms Range	OS	Germany	USAREUR	3	0	0	0	N	N	Y	N	Y	N	N	N	N	N	Y
	Podeldorf LTA	OS	Germany	USAREUR	1,105	0	0	0	N	N	Y	N	Y	N	N	N	N	N	Y
	P-Series	OS	Italy	USAREUR	5,291	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	Ray Barracks Training Area	OS	Germany	USAREUR	21	0	0	0	N	N	Y	N	Y	N	N	N	N	N	Y
	Reese Range Complex	OS	Germany	USAREUR	18	0	0	0	N	N	N	N	Y	N	N	N	N	N	Y
	Rheinblick LTA	OS	Germany	USAREUR	44	0	0	0	N	N	N	N	Y	N	N	N	N	N	Y
	Rivoli Bianchi	OS	Italy	USAREUR	235	0	0	0	N	N	N	N	Y	N	N	N	N	N	N
	Santa Severa	OS	Italy	USAREUR	100	0	0	0	N	N	N	Y	Y	N	N	N	N	N	N
	Schwetzingen LTA	OS	Germany	USAREUR	249	0	0	0	N	N	Y	N	N	N	N	N	N	N	Y
	Tiergarten	OS	Germany	USAREUR	234	0	0	0	N	N	Y	N	N	N	N	N	N	N	Y
	T-Series	OS	Italy	USAREUR	7,222	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	Wackernheim Small Arms Ranges	OS	Germany	USAREUR	32	0	0	0	N	N	N	N	Y	N	N	N	N	N	Y

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Individual Army Ranges	South Hauptsmoor LTA	OS	Germany	USAREUR	268	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	Warner Barracks	OS	Germany	USAREUR	2	0	0	0	N	N	N	N	Y	N	N	N	N	N	N
	Black Rapids Training Site	US	AK	USARPAC	4,213	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	Eklutna Glacier TS	US	AK	USARPAC	33	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	Gerstle River Training Area	US	AK	USARPAC	20,589	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	Whistler Creek TS	US	AK	USARPAC	543	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	Keamuku LTA	US	HI	USARPAC	22,640	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	Camel Tracks TNG Site	US	NM	ARNG	8,349	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	BG Thomas Baker Training Site	US	MD	ARNG	871	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	MTA Stead FAC	US	NV	ARNG	196	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	89TH RSC Mead WET Site	US	NE	USARC	956	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	89TH RSC Sunflower WET Site	US	KS	USARC	69	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	Aahoaka LTA	US	HI	ARNG	3,126	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	Albuquerque LTA	US	NM	USARC	7	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	American Samoa LTA	US	AS	USARC	79	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	Ananhola LTA	US	HI	ARNG	3,312	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	Artemus LTA	US	KY	ARNG	523	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	AVN Training Area (Weyerhaeuser)	US	WA	USARC	20,443	0	0	0	N	N	N	N	N	N	N	N	N	N	Y
	Barada LTA	US	NE	ARNG	85	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	Barker Dam LTA	US	TX	USARC	1,636	0	0	0	N	N	N	N	N	N	N	N	N	N	Y
	Beaver Training Area	US	UT	ARNG	657	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	Beckley City Police Range	US	WV	ARNG	2	0	0	0	N	N	N	N	Y	N	N	N	N	N	N
	Beech Fork State Park	US	WV	ARNG	12,783	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	Bidwell Hill	US	CO	ARNG	40	0	0	0	N	N	N	N	N	N	N	N	N	N	Y
	Blanding Armory	US	UT	ARNG	28	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	Bolivar LTA	US	TN	ARNG	170	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	Book Cliffs Rifle Range	US	CO	ARNG	345	0	0	0	N	N	N	N	Y	N	N	N	N	N	N
	Box Butte Reservoir LTA	US	NE	ARNG	13	0	0	0	N	N	N	N	N	N	N	N	N	N	Y

Training and Testing Range Complex Inventory

Military Service	Range Complex	United States (US) or Overseas (OS)	State or Country	Command/ Component	Range Description				Range Type											
					Land Area for Ranges (acres)	Special Use Airspace (sq nm)	Sea Surface Area (sq nm)	Underwater Tracking Area (sq nm)	Air-to-Air or Air-to-Surface	Air-to-Ground	Land Maneuver	Land Impact Area	Land Firing Range	C2W/EW	Ocean Operating Area	MOUT	Underwater Tracking Range	Amphibious Area	Other
Individual Army Ranges	Brettons Wood Biathlon Range	US	NH	ARNG	1	0	0	0	N	N	N	N	Y	N	N	N	N	N	N
	Buckeye Training Site	US	AZ	ARNG	1,481	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	Bullseye 02	OS	Korea	EUSA	1,395	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	Camp Greaves	OS	Korea	EUSA	0	0	0	0	N	N	N	N	Y	N	N	N	N	N	N
	Camp Howze	OS	Korea	EUSA	0	0	0	0	N	N	N	N	Y	N	N	N	N	N	N
	Gimbols	OS	Korea	EUSA	3,019	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	Watkins Range	OS	Korea	EUSA	44	0	0	0	N	N	N	N	N	N	N	N	N	N	Y
	Camp Humphreys	OS	Korea	EUSA	1	0	0	0	N	N	N	N	Y	N	N	N	N	N	N
	Rottershausen	OS	Germany	USAREUR	142	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	Fahr River Crossing	OS	Germany	USAREUR	3	0	0	0	N	N	N	N	N	N	N	N	N	N	Y
	Gerlachshausen Swim Site	OS	Germany	USAREUR	0	0	0	0	N	N	N	N	N	N	N	N	N	N	N
	Michelfeld	OS	Germany	USAREUR	92	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	Katterbach Kaserne	OS	Germany	USAREUR	49	0	0	0	N	N	N	N	N	N	N	N	N	N	Y
	Bamberg TA G	OS	Germany	USAREUR	70	0	0	0	N	N	N	N	Y	N	N	N	N	N	N
	Appendorf LTA	OS	Germany	USAREUR	328	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	Area Ockstadt	OS	Germany	USAREUR	192	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	Babenhausen LTA	OS	Germany	USAREUR	190	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	Bamberg Army Airfield	OS	Germany	USAREUR	11	0	0	0	N	N	N	N	N	N	N	N	N	N	Y
	Benelux TSC	OS	Belgium	USAREUR	70	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	Bug LTA	OS	Germany	USAREUR	111	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	Burgebrach LTA	OS	Germany	USAREUR	249	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	Fontaniva	OS	Italy	USAREUR	155	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	Giessen Depot Training Area	OS	Germany	USAREUR	137	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	Grossauheim	OS	Germany	USAREUR	46	0	0	0	N	N	N	N	N	N	N	N	N	N	Y
	Grossostheim LTA	OS	Germany	USAREUR	1,557	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	Hohe Warte	OS	Germany	USAREUR	160	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	Kunigundenruh LTA	OS	Germany	USAREUR	113	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	LTA 6910	OS	Germany	USAREUR	104	0	0	0	N	N	Y	N	N	N	N	N	N	N	N

Training and Testing Range Complex Inventory

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					Land Area for Ranges (acres)	Special Use Airspace (sq nm)	Sea Surface Area (sq nm)	Underwater Tracking Area (sq nm)	Air-to-Air or Air-to-Surface	Air-to-Ground	Land Maneuver	Land Impact Area	Land Firing Range	C2W/EW	Ocean Operating Area	MOUT	Underwater Tracking Range	Amphibious Area	Other
Individual Army Ranges	Mainz-Layenhof	OS	Germany	USAREUR	249	0	0	0	N	N	N	N	N	N	N	Y	N	N	N
	Riverside	OS	Italy	USAREUR	3	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	San Giorgio	OS	Italy	USAREUR	68	0	0	0	N	N	N	N	N	N	N	Y	N	N	N
	Sand Dunes	OS	Germany	USAREUR	105	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	Buckley ANG Base, CO	US	CO	ARNG	10	0	0	0	N	N	N	N	N	N	N	N	N	N	Y
	Bullville Usarc	US	NY	USARC	154	0	0	0	N	N	N	N	N	N	N	N	N	N	Y
	Cameron Pass	US	CO	ARNG	45,193	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	Camp Barkeley	US	TX	ARNG	980	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	Camp Fowler	US	IN	ARNG	98	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	Camp Hale	US	CO	ARNG	21,389	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	Camp Keyes TS	US	ME	ARNG	1	0	0	0	N	N	N	N	N	N	N	N	N	N	Y
	Camp Luna	US	NM	ARNG	133	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	Camp Mabry	US	TX	ARNG	178	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	Camp Seven Mile	US	WA	ARNG	340	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	Casa Grande Training Site	US	AZ	ARNG	797	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	Chatfield Reservoir	US	CO	ARNG	2,271	0	0	0	N	N	N	N	N	N	N	N	N	N	Y
	Clarks Hill TS	US	SC	ARNG	891	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	Cornhusker AAP	US	NE	USACE	6	0	0	0	N	N	N	N	Y	N	N	N	N	N	N
	Douglas Training Site	US	AZ	ARNG	987	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	DZ Babich	US	MD	ARNG	113	0	0	0	N	N	N	N	N	N	N	N	N	N	Y
	DZ Beech Hill	US	WV	ARNG	189	0	0	0	N	N	N	N	N	N	N	N	N	N	Y
	Eagle Mountain Lake Training Site	US	TX	ARNG	1,246	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	East Stroudsburg Armory	US	PA	ARNG	19	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	Edgemeade TS Mtn Home	US	ID	ARNG	123	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	Ernie Pyle Usarc/Amsa #12 (G)	US	NY	USARC	2	0	0	0	N	N	N	N	N	N	N	N	N	N	Y
	FAA Radio Tower Site	US	CO	ARNG	13	0	0	0	N	N	N	N	N	N	N	N	N	N	Y
	Felicity	US	OH	ARNG	1	0	0	0	N	N	N	N	N	N	N	N	N	N	Y
	Fort Mifflin	US	PA	ARNG	26	0	0	0	N	N	N	N	N	N	N	N	N	N	Y

Training and Testing Range Complex Inventory

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					Land Area for Ranges (acres)	Special Use Airspace (sq nm)	Sea Surface Area (sq nm)	Underwater Tracking Area (sq nm)	Air-to-Air or Air-to-Surface	Air-to-Ground	Land Maneuver	Land Impact Area	Land Firing Range	C2W/EW	Ocean Operating Area	MOUT	Underwater Tracking Range	Amphibious Area	Other
Individual Army Ranges	Fort Morgan Airport	US	CO	ARNG	19	0	0	0	N	N	N	N	N	N	N	N	N	N	Y
	Fort Ruger	US	HI	USARPAC	311	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	Fountain Inn TS	US	SC	ARNG	21	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	Freeman Field Police Range	US	IN	ARNG	2	0	0	0	N	N	N	N	Y	N	N	N	N	N	N
	Garrison WET Site	US	ND	ARNG	765	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	Gila Bend Training Site	US	AZ	ARNG	637	0	0	0	N	N	N	N	N	N	N	N	N	N	Y
	Goodpasture DZ	US	CO	ARNG	178	0	0	0	N	N	N	N	N	N	N	N	N	N	Y
	Great Bend LTA	US	KS	USARC	1	0	0	0	N	N	N	N	N	N	N	N	N	N	Y
	Haws Crossroads WET Site	US	TN	USARC	103	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	Hayden Lake LTA	US	ID	USARC	612	0	0	0	N	N	N	N	Y	N	N	N	N	N	N
	Hayford Pit LTA	US	WA	USARC	24	0	0	0	N	N	N	N	N	N	N	N	N	N	Y
	Hidden Valley LTA	US	KY	ARNG	535	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	Hilltop Range	US	IN	ARNG	1	0	0	0	N	N	N	N	Y	N	N	N	N	N	N
	Hobbs	US	NM	ARNG	262	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	Hodges TS	US	SC	ARNG	20	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	Honopou LTA	US	HI	ARNG	106	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	Horsetooth Reservoir	US	CO	ARNG	5,012	0	0	0	N	N	N	N	N	N	N	N	N	N	Y
	Kalepa LTA	US	HI	ARNG	902	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	Kekaha LTA	US	HI	ARNG	3,193	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	Kelly Canyon TS	US	ID	ARNG	3,826	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	Kingsbury LTA	US	IN	USARC	919	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	Lebanon Readiness Center	US	NH	ARNG	0	0	0	0	N	N	N	N	N	N	N	N	N	N	Y
	Leeman Field LTA	US	VA	ARNG	24	0	0	0	N	N	N	N	N	N	N	N	N	N	Y
	Leroy Dilka Land	US	CO	ARNG	2	0	0	0	N	N	N	N	N	N	N	N	N	N	Y
	Lexington	US	OK	ARNG	317	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	Longhorn AAP	US	TX	AMC	0	0	0	0	N	N	N	N	Y	N	N	N	N	N	N
	LTA Vaap	US	TN	USARC	195	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	Ltc Hernan G. Pesquera Usar Center	US	PR	USARC	4	0	0	0	N	N	N	N	N	N	N	N	N	N	Y

Training and Testing Range Complex Inventory

Military Service	Range Complex	United States (US) or Overseas (OS)	State or Country	Command/ Component	Range Description				Range Type										
					Land Area for Ranges (acres)	Special Use Airspace (sq nm)	Sea Surface Area (sq nm)	Underwater Tracking Area (sq nm)	Air-to-Air or Air-to-Surface	Air-to-Ground	Land Maneuver	Land Impact Area	Land Firing Range	C2W/EW	Ocean Operating Area	MOUT	Underwater Tracking Range	Amphibious Area	Other
Individual Army Ranges	Maluhia LTA	US	HI	ARNG	70	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	Mankato Local Training Area	US	MN	USARC	20	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	Marion LTA	US	OH	USARC	122	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	Mitchell Training Area	US	SD	ARNG	1	0	0	0	N	N	N	N	Y	N	N	N	N	N	N
	Moosehorn	US	ME	ARNG	0	0	0	0	N	N	N	N	Y	N	N	N	N	N	N
	Mountwood Park	US	WV	ARNG	3,109	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	New River Valley Training Site	US	VA	USARC	88	0	0	0	N	N	N	N	N	N	N	N	N	N	Y
	Newark LTA, NY	US	NY	ARNG	100	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	Newfane WET Site	US	NY	USARC	3	0	0	0	N	N	N	N	N	N	N	N	N	N	Y
	Newport Chemical Depot	US	IN	AMC	0	0	0	0	N	N	N	N	Y	N	N	N	N	N	N
	Nounou LTA	US	HI	ARNG	1,720	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	Ocala Armory	US	FL	ARNG	0	0	0	0	N	N	N	N	N	N	N	N	N	N	Y
	Ogden Local Training Area	US	UT	USARC	132	0	0	0	N	N	N	N	N	N	N	N	N	N	Y
	Oxford	US	ME	ARNG	58	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	Paisley LTA	US	FL	ARNG	11,279	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	Pau'Uilo LTA	US	HI	ARNG	45	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	Peaceful Valley Ranch	US	CO	ARNG	1,205	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	Peterborough Readiness Center	US	NH	ARNG	0	0	0	0	N	N	N	N	N	N	N	N	N	N	Y
	Picacho Training Site	US	AZ	ARNG	352	0	0	0	N	N	N	N	N	N	N	N	N	N	Y
	Pickens TS	US	SC	ARNG	9	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	Pierre Training Area	US	SD	ARNG	5	0	0	0	N	N	N	N	Y	N	N	N	N	N	N
	Platte Training Area	US	SD	ARNG	40	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	Pocatello Airport Local Training Area	US	ID	USARC	9	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	Poverty Flats Training Area	US	UT	ARNG	448	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	Price Training Area	US	UT	ARNG	159	0	0	0	N	N	N	N	N	N	N	N	N	N	Y
	Puu Kapele LTA	US	HI	ARNG	1,109	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	Puu Pa LTA	US	HI	ARNG	13,243	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	Pu'Unene LTA	US	HI	ARNG	1,610	0	0	0	N	N	Y	N	N	N	N	N	N	N	N

Training and Testing Range Complex Inventory

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Individual Army Ranges	Raleigh County Firing Range	US	WV	ARNG	1	0	0	0	N	N	N	N	Y	N	N	N	N	N	N
	Ramey Usar Center LTA	US	PR	USARC	53	0	0	0	N	N	N	N	N	N	N	N	N	N	Y
	Raytown Training Site	US	MO	ARNG	51	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	Rittenhouse Training Site	US	AZ	ARNG	198	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	Safford Training Site	US	AZ	ARNG	399	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	San Juan National Forest	US	CO	ARNG	629,816	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	Snake Creek Training Site	US	FL	ARNG	295	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	South Charleston	US	WV	ARNG	1	0	0	0	N	N	N	N	Y	N	N	N	N	N	N
	Stanton LTA	US	NE	ARNG	633	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	State Police Academy, VT	US	VT	ARNG	0	0	0	0	N	N	N	N	Y	N	N	N	N	N	N
	Strasburg DZ	US	CO	ARNG	943	0	0	0	N	N	N	N	N	N	N	N	N	N	Y
	Sunny Hills LTA	US	FL	ARNG	11,091	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	Swift Acres LTA	US	FL	ARNG	4,154	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	Tarlton LTA	US	OH	ARNG	118	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	Toledo Usarc	US	OH	USARC	28	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	Tosohatchee LTA	US	FL	ARNG	3,445	0	0	0	N	N	N	N	N	N	N	N	N	N	Y
	TS-Hawk McConnelsville, OH	US	OH	ARNG	395	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	Vernal Training Area	US	UT	ARNG	159	0	0	0	N	N	N	N	N	N	N	N	N	N	Y
	Waiawa	US	HI	ARNG	15	0	0	0	N	N	N	N	N	N	N	N	N	N	Y
	Walker Field Airport	US	CO	ARNG	25	0	0	0	N	N	N	N	N	N	N	N	N	N	Y
	Wally Eagle DZ	US	CO	ARNG	837	0	0	0	N	N	N	N	N	N	N	N	N	N	Y
	Washington County Memorial Usarc	US	OH	USARC	16	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	Watertown Training Area	US	SD	ARNG	5	0	0	0	N	N	N	N	Y	N	N	N	N	N	N
	Wells Gulch	US	CO	ARNG	57	0	0	0	N	N	N	N	N	N	N	N	N	N	Y
	Western Arng Aviation (Waats) Silverbell	US	AZ	ARNG	160	0	0	0	N	N	N	N	N	N	N	N	N	N	Y
	Wheeler Army Airfield	US	HI	USARPAC	568	0	0	0	N	N	N	N	N	N	N	N	N	N	Y
	Whitaker Education Training Center	US	OK	ARNG	593	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	Whitehorse Range	US	WV	ARNG	1	0	0	0	N	N	N	N	Y	N	N	N	N	N	N

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Individual Army Ranges	Wilcox	US	AZ	TRADOC	28,814	0	0	0	N	N	N	N	Y	N	N	N	N	N	N
	WV State Police Academy Range	US	WV	ARNG	12	0	0	0	N	N	N	N	Y	N	N	N	N	N	N
	Wvdnr Bluestone Wma Range	US	WV	ARNG	1	0	0	0	N	N	N	N	Y	N	N	N	N	N	N
	Wvdnr Plum Orchard Wma Range	US	WV	ARNG	3	0	0	0	N	N	N	N	Y	N	N	N	N	N	N
Air Force	Adirondack	US	NY	ANG	75000	200	0	0	N	Y	N	N	N	Y	N	N	N	N	N
	Airburst	US	CO	ANG	4,257	26	0	0	N	Y	N	N	N	Y	N	N	N	N	N
	Atterbury	US	IN	ANG	18500	103	0	0	N	Y	N	N	N	Y	N	N	N	N	N
	Avon Park	US	FL	ACC	106,073	1,400	0	0	Y	Y	N	N	N	N	N	N	N	N	N
	Barry M. Goldwater Range	US	AZ	AETC	1,607,018	3,906	0	0	Y	Y	N	N	N	Y	N	N	N	N	N
	Belle Fourche ESS	US	SD	ACC	183	0	0	0	N	Y	N	N	N	Y	N	N	N	N	N
	Blair Lake	US	AK	PACAF	2,560	22,000	0	0	N	Y	N	N	N	N	N	N	N	N	N
	Bollen	US	PA	ANG	10,657	42	0	0	N	Y	N	N	N	Y	N	N	N	N	N
	Cannon	US	MO	ANG	4,600	339	0	0	N	Y	N	N	N	Y	N	N	N	N	N
	Claiborne	US	LA	AFRC	7,800	135	0	0	N	Y	N	N	N	Y	N	N	N	N	N
	Dare County Ranges	US	SC	ACC	46,621	1,184	0	0	Y	Y	N	N	N	Y	N	N	N	N	N
	Edwards Ranges	US	CA	AFMC	50,080	20,000	0	0	Y	Y	N	N	N	Y	N	N	N	N	N
	Eglin Ranges	US	FL	AFMC	463,360	133,979	0	0	Y	Y	N	N	N	Y	N	N	N	N	N
	Falcon	US	OK	AFRC	5,200	1,845	0	0	N	Y	N	N	N	Y	N	N	N	N	N
	Grand Bay	US	GA	ACC	6,000	17,290	0	0	N	Y	N	N	N	N	N	N	N	N	N
	Grayling	US	MI	ANG	145,025	63	0	0	Y	Y	N	N	N	Y	N	N	N	N	N
	Hardwood	US	WI	ANG	7,263	84	0	0	N	Y	N	N	N	Y	N	N	N	N	N
	Holloman	US	NM	ACC	207,800	2,256	0	0	Y	Y	N	N	N	Y	N	N	N	N	N
	Jefferson	US	IN	ANG	50,000	160	0	0	Y	Y	N	N	N	Y	N	N	N	N	N
	Koon-Ni	OS	Korea	PACAF	0	0	0	0	N	Y	N	N	N	Y	N	N	N	N	N
	Lone Star ESS	US	TX	ACC	90	0	0	0	N	Y	N	N	N	Y	N	N	N	N	N
	McMullen	US	TX	ANG	2,800	63	0	0	N	Y	N	N	N	Y	N	N	N	N	N
	Melrose	US	NM	ACC	66,033	22,000	0	0	Y	Y	N	N	N	Y	N	N	N	N	N
	Mountain Home Ranges	US	ID	ACC	120,844	18,526	0	0	Y	Y	N	N	N	Y	N	N	N	N	N

Training and Testing Range Complex Inventory

Military Service	Range Complex	United States (US) or Overseas (OS)	State or Country	Command/ Component	Range Description				Range Type										
					Land Area for Ranges (acres)	Special Use Airspace (sq nm)	Sea Surface Area (sq nm)	Underwater Tracking Area (sq nm)	Air-to-Air or Air-to-Surface	Air-to-Ground	Land Maneuver	Land Impact Area	Land Firing Range	C2W/EW	Ocean Operating Area	MOUT	Underwater Tracking Range	Amphibious Area	Other
Air Force	Nevada Testing and Training Range	US	NV	ACC	2,919,890	12,000	0	0	Y	Y	N	N	N	Y	N	N	N	N	N
	Oklahoma	US	AK	PACAF	25,600	22,000	0	0	N	Y	N	N	N	Y	N	N	N	N	N
	Pilsung	OS	Korea	PACAF	0	0	0	0	N	Y	N	N	N	Y	N	N	N	N	N
	Poinsett	US	SC	ACC	12,521	1,500	0	0	N	Y	N	N	N	Y	N	N	N	N	N
	Polygone	OS	France/ Germany	USAFE	0	0	0	0	N	Y	N	N	N	Y	N	N	N	N	N
	Razorback	US	AR	ANG	5760	128	0	0	N	Y	N	N	N	Y	N	N	N	N	N
	Ripsaw	OS	Japan	PACAF	0	0	0	0	N	Y	N	N	N	Y	N	N	N	N	N
	Shelby Ranges	US	MS	ANG	26,676	0	0	0	N	Y	N	N	N	Y	N	N	N	N	N
	Shoal Creek	US	TX	AFRC	17,540	5,200	0	0	N	Y	N	N	N	Y	N	N	N	N	N
	Siegenberg	OS	Germany	USAFE	0	0	0	0	N	Y	N	N	N	N	N	N	N	N	N
	Smoky Hill	US	KS	ANG	33,875	53	0	0	N	Y	N	N	N	Y	N	N	N	N	N
	Snyder ESS	US	TX	ACC	90	0	0	0	N	Y	N	N	N	Y	N	N	N	N	N
	Torishima	OS	Japan	PACAF	0	0	0	0	N	Y	N	N	N	N	N	N	N	N	N
	Townsend	US	GA	ANG	5,183	288	0	0	N	Y	N	N	N	Y	N	N	N	N	N
	Utah Testing and Training Ranges	US	UT	ACC	1,712,000	12,574	0	0	Y	Y	N	N	N	Y	N	N	N	N	N
	Warren Grove	US	NJ	ANG	9,416	30	0	0	N	Y	N	N	N	Y	N	N	N	N	N
	Yukon	US	AK	PACAF	25,600	22,000	0	0	N	Y	N	N	N	Y	N	N	N	N	N
Marine Corps	MCB Camp Butler	OS	Japan	MARFORPAC	47,000	333	0	0	Y	Y	Y	Y	Y	N	N	Y	N	N	Y
	MCB Camp Lejeune	US	NC	MARFORLANT	157,440	151	0	0	Y	N	Y	Y	Y	N	N	Y	N	Y	Y
	MCB Camp Pendleton	US	CA	MARFORPAC	125,704	180	0	0	Y	Y	Y	Y	Y	N	N	Y	N	Y	Y
	MCAS Cherry Point	US	NC	MCIEAST	29,139	1,082	0	0	Y	N	Y	Y	Y	Y	N	N	N	N	N
	MCAGCC 29 Palms	US	CA	TECOM	601,151	1,268	0	0	N	N	Y	Y	Y	N	N	Y	N	N	Y
	MCAS Beaufort/Townsend	US	SC	MCIEAST	5,182	1,130	0	0	Y	Y	N	Y	Y	N	N	N	N	N	Y
	MCAS Miramar	US	CA	MCIWEST	4,700	0	0	0	N	N	Y	N	Y	N	N	N	N	N	Y
	MCAS Yuma/Bob Stump Training Range Complex	US	AZ	MCIWEST	1,216,000	7,085	0	0	Y	Y	Y	Y	Y	Y	N	N	N	N	Y
	MCB Hawaii	US	HI	MARFORPAC	4,706	0	0	0	N	N	Y	N	Y	N	N	N		Y	Y

Training and Testing Range Complex Inventory

Military Service	Range Complex	United States (US) or Overseas (OS)	State or Country	Command/ Component	Range Description				Range Type										
					Land Area for Ranges (acres)	Special Use Airspace (sq nm)	Sea Surface Area (sq nm)	Underwater Tracking Area (sq nm)	Air-to-Air or Air-to-Surface	Air-to-Ground	Land Maneuver	Land Impact Area	Land Firing Range	C2W/EW	Ocean Operating Area	MOUT	Underwater Tracking Range	Amphibious Area	Other
Marine Corps	MCB Quantico	US	VA	MCCDC	64,000	278	0	0	Y	Y	Y	Y	Y	N	N	Y	N	N	Y
	MCLB Albany	US	GA	MATCOM	4	0	0	0	N	N	N	N	Y	N	N	N	N	N	N
	MCLB Barstow	US	CA	MATCOM	2,438	0	0	0	N	N	N	N	Y	N	N	N	N	N	N
	MCMWTC Bridgeport	US	CA	TECOM	18,888	0	0	0	N	N	Y	N	N	N	N	N	N	N	N
	MCRD Parris Island	US	SC	TECOM	1,100	0	0	0	N	N	Y	N	Y	N	N	N	N	N	N
Navy	Atlantic City	US	NJ	CFFC	0	5,585	4,413	4,413	Y	N	N	N	N	N	Y	N	N	N	N
	Atlantic Test Range (Patuxent River)	US	MD, VA	NAVAIR	5,700	3,401	330	0	Y	Y	N	Y	N	Y	N	N	N	N	N
	Atlantic Undersea Test and Evaluation Center (AUTEC)	OS	Bahamas	NAVSEA	0	870	1,320	195	Y	N	N	N	N	N	Y	N	Y	N	N
	Boston	US	MA	CFFC	12,446	10,099	13,494	13,494	Y	Y	Y	N	N	N	Y	N	N	N	Y
	Cherry Point	US	NC	CFFC	0	18,718	18,718	18,718	Y	N	N	N	N	Y	Y	N	N	N	Y
	China Lake	US	CA	NAVAIR	1,141,200	13,661	0	0	Y	Y		Y		Y	N	N	N	N	N
	Diego Garcia	OS	BIOT	CPF	0	32,692	0	0	Y	N	N	N	N	N	N	N	N	N	N
	El Centro	US	CA	CFFC	43,948	256	0	0	Y	Y	N	Y	N	N	N	N	N	N	Y
	Fallon	US	NV	CFFC	232,481	14,182	0	0	Y	Y	Y	Y	Y	Y	N	Y	N	N	N
	Guantanamo	OS	Cuba	CFFC	8	13,175	13,118	13,118	Y	N	Y	Y	Y	N	Y	N	N	N	N
	Gulf of Mexico	US	FL, MS, TX	CFFC	10,057	38,393	17,469	17,469	Y	Y	N	Y	Y	N	Y	N	N	Y	Y
	Hawaiian Islands	US	HI	CPF	303	58,545	214,638	214,638	Y	N	N	Y	N	N	Y	N	N	N	Y
	Jacksonville	US	FL, GA	CFFC	17,728	37,443	50,098	50,098	Y	Y	N	Y	Y	N	Y	N	N	N	N
	Japan	OS	Japan	CPF	0	11,615	0	0	Y	N	YN	N	N	N	N	N	N	N	N
	Key West	US	FL	CFFC	1	24,812	8,282	8,282	Y	Y	N	N	Y	Y	Y	N	N	N	Y
	Mariana Islands	OS	CNMI, Guam	CPF	24,894	8,726	8,698	8,698	Y	N	Y	N	Y	N	Y	Y	N	Y	Y
	Narragansett	US	RI	CFFC	0	13,005	27,208	27,208	Y	N	N	N	N	N	Y	N	N	N	N
	Northern California (NOCAL)	US	CA	CFFC	0	19,622	0	0	Y	N	N	N	N	N	N	N	N	N	N
	Northwest Training Range Complex	US	CA, OR, WA	CFFC	49,674	42,714	128,103	128,103	Y	Y	Y	Y	Y	Y	Y	N	Y	N	Y
	Okinawa	OS	Japan	CPF	0	29,050	0	0	Y	Y	N	N	N	N	N	N	N	N	N

Training and Testing Range Complex Inventory

Military Service	Range Complex	United States (US) or Overseas (OS)	State or Country	Command/ Component	Range Description				Range Type											
					Land Area for Ranges (acres)	Special Use Airspace (sq nm)	Sea Surface Area (sq nm)	Underwater Tracking Area (sq nm)	Air-to-Air or Air-to-Surface	Air-to-Ground	Land Maneuver	Land Impact Area	Land Firing Range	C2W/EW	Ocean Operating Area	MOUT	Underwater Tracking Range	Amphibious Area	Other
Navy	Point Mugu Sea Range	US	CA	NAVAIR	15,000	27,712	27,278	0	Y	Y	N	N	N	Y	Y	N	N	N	N
	Southern California (SOCAL)	US	CA	CFFC	43,437	113,231	120,000	7,699	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
	VACAPES	US	NC, VA	CFFC	1,543	30,451	28,916	28,916	Y	Y	Y	N	Y	N	Y	Y	N	Y	N

Table C-2 Special Use Airspace (SUA) Inventory

Military Training Route Inventory

Military Training Route	Originating Agency*	Scheduling Agency*	Effective Times	Length (NM)**
IR002	20 OSS/OSOA, Shaw AFB, SC 29152-5000 DSN 965-1121/1122, C 803-895-1121/1122, Fax	20 OSS/OSOS, Shaw AFB, SC 29152 Duty hrs DSN 965-1118/1119, C803-895-1118/1119.	Continuous	125
IR012	4 OSS/OSR, Seymour Johnson AFB, NC 27531-5004 DSN 722-2672, C919-722-2672.	4 OSS/OSOSF, Seymour Johnson AFB, NC 27531-5004 DSN 722-2129/2124, C919-722-2129	Continuous	144
IR015	347 OSS/OSKA, Moody AFB, GA 31699-1899 DSN 460-4131, C229-257-4131.	347 OSS/OSOS, Moody AFB, GA 31699-1899 Mon-Fri 0730-1630L exc holidays DSN 460-4	Continuous	164
IR016	347 OSS/OSKA, Moody AFB, GA 31699-1899 DSN 460-4131, C229-257-4131.	347 OSS/OSOS, Moody AFB, GA 31699-1899 Mon-Fri 0730-1630L exc holidays DSN 460-4	Continuous	167
IR017	187 FW, 5187 Selma Highway, Montgomery, AL 36108-4824 DSN 358-9255, C334-394-725	Same as Originating Activity	Continuous	201
IR018	FACSFAC JAX, NAS Jacksonville, FL 32212 DSN 942-2004/2005, C904-542-2004/2005, A	Same as Originating Activity	0700–2400 local daily	401
IR019	FACSFAC JAX, NAS Jacksonville, FL 32212 DSN 942-2004/2005, C904-542-2004/2005, A	Same as Originating Activity	0700–2400 local daily	454
IR020	FACSFAC JAX, NAS Jacksonville, FL 32212 DSN 942-2004/2005, C904-542-2004/2005, A	Same as Originating Activity	0700–2400 local daily	392
IR021	FACSFAC, Pensacola, FL 32508-5217 DSN 922-2735, C850-452-2735.	Same as Originating Activity	1200–0400Z++ Mon–Fri, occasionally on weekends	452
IR022	FACSFAC, Pensacola, FL 32508-5217 DSN 922-2735, C850-452-2735.	Same as Originating Activity	1200–0400Z++ weekdays, occasional weekends	322
IR023	CG MCAS CHERRY POINT, ATTN RAC-DIROPS, Cherry Point, NC 28533 DSN 582-3466, C252	Central Scheduling Division, MCAS Cherry Point, NC 28533 DSN 582-4040/4041, C252	Continuous	224
IR026	FACSFACJAX, PO Box 40, NAS Jacksonville, FL 32212-0040 DSN 942-2004/2005 C904-54	Same as Originating Activity	By NOTAM	55
IR027	FACSFACJAX, PO Box 40, NAS Jacksonville, FL 32212-0040 DSN 942-2004/2005 C904-54	Same as Originating Activity	By NOTAM	12
IR030	Commander Naval Air Warfare Center, Weapons Division, Code 52911GE, NAWS, Point	Same as Originating Activity	Daylight hours only, daily	260
IR031	Commander Naval Air Warfare Center, Weapons Division, Code 52911GE, NAWS, Point	Same as Originating Activity	Daylight hours only, daily	260
IR032	Commander Naval Air Warfare Center, Weapons Division, Code 52911GE, NAWS, Point	Commander Fleet Area Control and Surveillance Facility Jacksonville, Naval Air S	Daylight hours	167
IR033	Commander Naval Air Warfare Center, Weapons Division, Code 52911GE, NAWS, Point	Commander Fleet Area Control and Surveillance Facility Jacksonville, Naval Air S	Daylight hours	211
IR034	347 Rescue Wing, Detachment 1/RO, 8707 North Golf Course St., MacDill AFB, FL 33	347 Rescue Wing, Detachment 1/ROA, 8707 North Golf Course St., MacDill AFB, FL 3	0600–2400 local	150
IR035	437 AW/C-17 OSS/OSA Charleston AFB, SC 29404 DSN 673-7692, C843-963-7692.	20 OSS/OSOS, Shaw AFB, SC 29152-5000 Duty hours DSN 965-1118/1119 C803-895-1118,	0600–2200 local, daily	198
IR036	437 AW/C-17 OSS/OSOT Charleston AFB, SC 29404 DSN 673-5613, C803-566-5613.	20 OSS/OSOS, Shaw AFB, SC 29152-5000 Duty hours DSN 965-1118/1119 C803-895-1118,	0600–2200 local, daily	178
IR037	FACSFAC, Pensacola, FL 32508-5217 DSN 922-2735, C850-452-2735.	Same as Originating Activity	Mon–Fri 1200–0400Z++, occasional weekends	213
IR038	FACSFAC, NAS Pensacola, FL 32508-5217 DSN 922-2735, C850-452-2735.	Same as Originating Activity	Sunrise–Sunset, Mon–Fri, occasional weekends	398
IR040	FACSFAC, NAS Pensacola, FL 32508-5217 DSN 922-2735, C850-452-2735.	Same as Originating Activity	Mon–Fri 1200–0400Z++, occasional weekends	176
IR044	COMTRAWING ONE, NAS Meridian, MS 39309-0136 DSN 637-2347, C601-679-2347.	Same as Originating Activity	Sunrise–Sunset	161

* *Data fields are limited to 80 characters in the source database [National Geospatial-Intelligence Agency (Digital Aeronautical Flight Information File)]; therefore, some data field entries are not complete. Please refer to DoD Flight Information Publications for complete originating and scheduling activity information.*

** *Length calculations were performed using an the appropriate Universal Transverse Mercator zones.*

Source: Department of Defense based on data from the National Geospatial-Intelligence Agency (Digital Aeronautical Flight Information File, (effective: January 18, 2008 through Feburary 13, 2008).

Military Training Route Inventory

Military Training Route	Originating Agency*	Scheduling Agency*	Effective Times	Length (NM)**
IR046	347 Rescue Wing, Detachment 1/RO, 8707 North Golf Course St., MacDill AFB, FL 33	347 Rescue Wing, Detachment 1/ROA, 8707 North Golf Course St., MacDill AFB, FL 3	0700–2400 local, daily	171
IR047	347 Rescue Wing, Detachment 1/RO, 8707 North Golf Course St., MacDill AFB, FL 33	347 Rescue Wing, Detachment 1/ROA, 8707 North Golf Course St., MacDill AFB, FL 3	0700–2400 local, daily	67
IR048	347 Rescue Wing, Detachment 1/RO, 8707 North Golf Course St., MacDill AFB, FL 33	347 Rescue Wing, Detachment 1/ROA, 8707 North Golf Course St., MacDill AFB, FL 3	0700–2400 local, daily	31
IR049	347 Rescue Wing, Detachment 1/RO, 8707 North Golf Course St., MacDill AFB, FL 33	347 Rescue Wing, Detachment 1/ROA, 8707 North Golf Course St., MacDill AFB, FL 3	0700–2400 local, daily	87
IR050	347 Rescue Wing, Detachment 1/RO, 8707 North Golf Course St., MacDill AFB, FL 33	347 Rescue Wing, Detachment 1/ROA, 8707 North Golf Course St., MacDill AFB, FL 3	0700–2400 local, daily	109
IR051	347 Rescue Wing, Detachment 1/RO, 8707 North Golf Course St., MacDill AFB, FL 33	347 Rescue Wing, Detachment 1/ROA, 8707 North Golf Course St., MacDill AFB, FL 3	0700–2400 local, daily	196
IR053	347 Rescue Wing, Detachment 1/RO, 8707 North Golf Course St., MacDill AFB, FL 33	347 Rescue Wing, Detachment 1/ROA, 8707 North Golf Course St., MacDill AFB, FL 3	0600–2400 local, daily	136
IR055	347 WG, Detachment 1/RO, 8707 North Golf Course St., MacDill AFB, FL 33621-5205	347 WG, Detachment 1/ROA, 8707 North Golf Course St., MacDill AFB, FL 33621-5205	0600–2400 local, daily	138
IR056	347 WG, Detachment 1/RO, 8707 North Golf Course St., MacDill AFB, FL 33621-5205	347 WG, Detachment 1/ROA, 8707 North Golf Course St., MacDill AFB, FL 33621-5205	0600–2400 local	206
IR057	16 OSS/DOAA, Hurlburt Field, FL 32544 DSN 579-7409, C850-884-7409.	16 OSS/DOO, Hurlburt Field, FL 32544 DSN 579-6877/7812, C850-884-6877/7812.	Continuous	417
IR059	16 OSS/DOAA, Hurlburt Field, FL 32544 DSN 579-7409, C850-884-7409.	16 OSS/DOO, Hurlburt Field, FL 32544 DSN 579-6877/7812, C850-884-6877/7812.	Continuous	437
IR062	COMSTRKFIGHTWINGLANT, Oceana NAS, Virginia Beach, VA 23460 DSN 433-4013, C757-43	FACSFAC VACAPES, Oceana , NAS Virginia Beach, VA 23460 DSN 433-1228, C757-433-12	Continuous	508
IR066	14 OSS/OSOP, Columbus AFB, MS 39710 DSN 742-7560/7633, C662-434-7560/7633.	50 FTS, Columbus AFB, MS 39710 DSN 742-7734/7735, C662-434-7734/7735.	Sunrise–Sunset Mon–Fri	285
IR067	14 OSS/OSOP, Columbus AFB, MS 39710 DSN 742-7560/7633, C662-434-7560/7633.	48 FTS, Columbus AFB, MS 39710 DSN 742-7840/7847, C662-434-7840/7847.	Sunrise–Sunset Mon–Fri	312
IR068	14 OSS/OSOP, Columbus AFB, MS 39710 DSN 742-7560/7633, C662-434-7560/7633.	48 FTS, Columbus AFB, MS 39710 DSN 742-7840/7847, C662-434-7840/7847.	Sunrise–Sunset Mon–Fri	149
IR070	14 OSS/OSOP, Columbus AFB, MS 39710-5000 DSN 742-7560/7633, C662-434-7560/7633.	48 FTS, Columbus AFB, MS 39710 DSN 742-7840/7847, C662-434-7840/7847.	Sunrise–Sunset Daily	260
IR077	FACSFAC, Pensacola, FL 32508-5217 DSN 922-2735, C850-452-2735.	Same as Originating Activity	1200–0400Z++ Mon–Fri; occasional weekends	276
IR078	FACSFAC, Pensacola, FL 32508-5217 DSN 922-2735, C850-452-2735.	Same as Originating Activity	1200–0400Z++ Mon–Fri; occasional weekends	276
IR079	FACSFA, Pensacola, FL 32508-5217 DSN 922-2735, C850-452-2735.	Same as Originating Activity	1200–0400Z++ Mon–Fri; occasional weekends	246
IR080	FACSFAC, Pensacola, FL 32508-5217 DSN 922-2735, C850-452-2735.	Same as Originating Activity	1200–0400Z++ Mon–Fri; occasional weekends	267
IR081	FACSFAC, Pensacola, FL 32508-5217 DSN 922-2735, C850-452-2735.	Same as Originating Activity	1200–0400Z++ Mon–Fri; occasional weekends	216
IR082	FACSFAC, Pensacola, FL 32508-5217 DSN 922-2735, C850-452-2735.	Same as Originating Activity	1200–0400Z++ Mon–Fri; occasional weekends	270
IR083	FACSFAC, Pensacola, FL 32508-5217 DSN 922-2735, C850-452-2735.	Same as Originating Activity	1200–0400Z++ Mon–Fri; occasional weekends	299

* *Data fields are limited to 80 characters in the source database [National Geospatial-Intelligence Agency (Digital Aeronautical Flight Information File)]; therefore, some data field entries are not complete. Please refer to DoD Flight Information Publications for complete originating and scheduling activity information.*

** *Length calculations were performed using an the appropriate Universal Transverse Mercator zones.*

Source: Department of Defense based on data from the National Geospatial-Intelligence Agency (Digital Aeronautical Flight Information File, (effective: January 18, 2008 through Feburary 13, 2008).

Military Training Route Inventory

Military Training Route	Originating Agency*	Scheduling Agency*	Effective Times	Length (NM)**
IR089	437 OSS/OSOT, Charleston AFB, SC 29404 DSN 673-5554, C843-963-5554.	437 OSS/OSOT, Charleston AFB, SC 29404 DSN 673-5552, C843-963-5552. Non duty hrs	0600–2400 local, daily, Jan, Mar, May, Jul, Sep and Nov only	177
IR090	437 OSS/OSOT, Charleston AFB, SC 29404 DSN 673-5554, C843-963-5554.	437 OSS/OSOT, Charleston AFB, SC 29404 DSN 673-5552, C843-963-5552. Non duty hrs	0600–2400 local, daily, Feb, Apr, Jun, Aug, Oct, and Dec only	177
IR091	14 OSS/OSOP Columbus AFB, MS 39710 DSN 742-7560/7633 C662-434-7560/7633.	50 FTS Columbus AFB, MS 39710 DSN 742-7734/7735, C662-434-7734/7735.	Sunrise–Sunset Mon–Fri	179
IR102	49 OSS/OSTA, 700 Delaware Ave., Holloman AFB, NM 88330-8017 DSN 572-3244, C505-5	49 OSS/OSOS, 744 Delaware Ave., Holloman AFB, NM 88330-8014 DSN 572-3536, C505-5	Daylight hours by NOTAM	521
IR103	301 OG/SUA, NAS JRB Fort Worth, TX 76127 DSN 739-6903/6904/6905, C817-782-6903/6	Same as Originating Activity	0600–2200 local, daily	117
IR105	301 OG/SUA, NAS JRB, Ft. Worth, TX 76127 DSN 739-6903/6904/6905, C817-782-6903/6	Same as Originating Activity.	0600–2200 local, daily	212
IR107	27 OSS/OSOH 110 E. Sextant Ave., Suite 1081, Cannon AFB, NM 88103 DSN 681-2279 C	27 OSS/OSOS 110 E. Sextant Ave., Suite 1080, Cannon AFB, NM 88103 DSN 681-2276.	Continuous	655
IR109	27 OSS/OSOH 110 E. Sextant Ave., Suite 1081, Cannon AFB, NM 88103 DSN 681-2279.	27 OSS/OSOS 110 E. Sextant Ave., Suite 1080, Cannon AFB, NM 88103 DSN 681-2276,	Continuous	747
IR111	27 OSS/OSOH 110 E. Sextant Ave., Suite 1081, Cannon AFB, NM 88103 DSN 681-2279 C	27 OSS/OSOS 110 E. Sextant Ave., Suite 1080, Cannon AFB, NM 88103 DSN 681-2276.	Continuous	661
IR112	58 OSS/DOO, Kirtland AFB, NM 87117-5861 DSN 263-5979/5888, C505-853-5979/5888/57	Same as Originating Activity	Continuous	590
IR113	27 OSS/OSOH 110 E. Sextant Ave., Suite 1081, Cannon AFB, NM 88103 DSN 681-2279 C	27 OSS/OSOS 110 E. Sextant Ave., Suite 1080, Cannon AFB,NM 88103. Req for use sh	Continuous	1067
IR115	49 OSS/OSTA, 700 Delaware Ave., Holloman AFB, NM 88330-8017 DSN 572-3244, C505-5	49 OSS/OSOS, 744 Delaware Ave., Holloman AFB, NM 88330-8014 DSN 572-3536, C505-5	Daylight hours by NOTAM	62
IR116	49 OSS/OSTA, 700 Delaware Ave., Holloman AFB, NM 88330-8017 DSN 572-3244, C505-5	49 OSS/OSOS, 744 Delaware Ave., Holloman AFB, NM 88330-8014 DSN 572-3536, C505-5	Daylight hours by NOTAM	62
IR117	188 FW, 4850 Leigh Ave., Fort Smith, AR 72903-6096 DSN 778-5502.	Same as Originating Activity. Route scheduled no more than 24 hr in advance. Min	Continuous (except Sunday 1000–1200 local)	188
IR120	188 FW, 4850 Leigh Ave., Fort Smith, AR 72903-6096 DSN 778-5502.	Same as Originating Activity. Route scheduled no more than 24 hr in advance. Min	Continuous (except Sunday 1000–1200 local)	81
IR121	188 FW, 4850 Leigh Ave., Fort Smith, AR 72903-6096 DSN 778-5502.	Same as Originating Activity. Route scheduled no more than 24 hr in advance. Min	Continuous (except Sunday 1000–1200 local)	120
IR122	49 OSS/OSTA, 700 Delaware Ave., Holloman AFB, NM 88330-8017 DSN 572-3244, C505-5	49 OSS/OSOS, 744 Delaware Ave., Holloman AFB, NM 88330-8014 DSN 572-3536, C505-5	Continuous (except Sunday 1000–1200 local)	28
IR123	301 OG/SUA, NAS JRB Fort Worth, TX 76127 DSN 739-6903/6904/6905, C817-782-6903/6	Same as Originating Activity	0700–2200 local	403
IR124	301 OG/SUA, NAS JRB Fort Worth, TX 76127 DSN 739-6903/6904/6905, C817-782-6903/6	Same as Originating Activity	0700–2200 local	245
IR126	7 OSS/A3R, 965 Ave. D-4, Ste. 109, Dyess AFB, TX 79606 DSN 461-3666, C325-696-36	7 OSS/A3R, 966 Ave. D-4, Ste. 109, Dyess AFB, TX 79606 DSN 461-3665, C325-696-36	Continuous	807
IR127	12 OSS/OSOA, 501 I Street East, Randolph AFB, TX 78150 DSN 487-5580, C210-652-55	99th FTS, 1450 5th Street East, Randolph AFB, TX 78150 DSN 487-6746, C210-652-67	Sunrise–Sunset	243
IR128	7 OSS/A3R, 965 Ave. D-4, Ste. 109, Dyess AFB, TX 79606 DSN 461-3666, C325-696-36	7 OSS/A3R, 966 Ave. D-4, Ste. 109, Dyess AFB, TX 79606 DSN 461-3665, C325-696-36	Continuous	651

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** *Length calculations were performed using an the appropriate Universal Transverse Mercator zones.*

Source: Department of Defense based on data from the National Geospatial-Intelligence Agency (Digital Aeronautical Flight Information File, (effective: January 18, 2008 through Feburary 13, 2008).

Military Training Route Inventory

Military Training Route	Originating Agency*	Scheduling Agency*	Effective Times	Length (NM)**
IR129	12 OSS/OSOA, 501 I Street East, Randolph AFB, TX 78150 DSN 487-5580, C210-652-55	99th FTS, 1450 5th Street East, Randolph AFB, TX 78150 DSN 487-6746, C210-652-67	Sunrise–Sunset	279
IR130	49 OSS/OSTA, 700 Delaware Ave., Holloman AFB, NM 88330-8017 DSN 572-3244, C505-5	49 OSS/OSOS, 744 Delaware Ave., Holloman AFB, NM 88330-8014 DSN 572-3536, C505-5	Daylight hours by NOTAM	28
IR131	49 OSS/OSTA, 700 Delaware Ave., Holloman AFB, NM 88330-8017 DSN 572-3244, C505-5	49 OSS/OSOS, 744 Delaware Ave., Holloman AFB, NM 88330-8014 DSN 572-3536, C505-5	Daylight hours by NOTAM	32
IR132	49 OSS/OSTA, 700 Delaware Ave., Holloman AFB, NM 88330-8017 DSN 572-3244, C505-5	49 OSS/OSOS, 744 Delaware Ave., Holloman AFB, NM 88330-8014 DSN 572-3536, C505-5	Daylight hours by NOTAM	32
IR133	49 OSS/OSOA, 700 Delaware Ave., Holloman AFB, NM 88330-8014 DSN 572-3244, C505-5	49 OSS/OSOS, 744 Delaware Ave., Holloman AFB, NM 88330-8014 DSN 572-3536, C505-5	0700–2300 local	316
IR134	49 OSS/OSOA, 700 Delaware Ave., Holloman AFB, NM 88440-8014 DSN 572-3244, C505-5	49 OSS/OSOS, 744 Delaware Ave., Holloman AFB, NM 88330-8014 DSN 572-3536, C505-5	Sunrise–0600Z++	236
IR135	COMTRAWING TWO, NAS Kingsville, TX 78363 DSN 876-6518/6283/6108, C361-516-6518/6	Same as Originating Activity. Scheduling hrs 0800-1600 Mon-Fri ONLY (excluding h	Sunrise–Sunset, daily	137
IR136	COMTRAWING TWO, NAS Kingsville, TX 78363 DSN 876-6518/6283/6108, C361-516-6518/6	Same as Originating Activity. Scheduling hrs 0800-1600 Mon-Fri ONLY (excluding h	Sunrise–Sunset, daily	162
IR137	58 OSS/DOO, Kirtland AFB, NM 87117-5861 DSN 263-5979/5888, C505-853-5979/5888/57	Same as Originating Activity	Continuous	219
IR139	301 OG/SUA, NAS JRB Fort Worth, TX 76127 DSN 739-6903/6904/6905, C817-782-6903/6	Same as Originating Activity	0600–2200 local, daily	102
IR141	49 OSS/OSTA, 700 Delaware Ave., Holloman AFB, NM 88330-8017 DSN 572-3244, C505-5	49 OSS/OSOS, 744 Delaware Ave., Holloman AFB, NM 88330-8014 DSN 572-3536, C505-5	Daylight hours by NOTAM	521
IR142	49 OSS/OSOA, 700 Delaware Ave., Ste. 131, Holloman AFB, NM 88330-8014 DSN 572-32	49 OSS/OSOS, 744 Delaware Ave., Holloman AFB, NM 88330-8014 DSN 572-3536, C505-5	Sunrise–0600Z++	207
IR145	71 FTW/OSOP, Vance AFB, OK 73705-5202 DSN 448-7850, C580-213-7850.	25 FTS/DISP, Vance AFB, OK 73705-5202 DSN 448-6038, C580-213-6038.	30 min after Sunrise–30 min before Sunset and active days per local directives	187
IR146	71 FTW/OSOP, Vance AFB, OK 73705-5202 DSN 448-7850, C580-213-7850.	25 FTS/DISP, Vance AFB, OK 73705-5202 DSN 448-6038, C580-213-6038.	30 min after Sunrise–30 min before Sunset and active days per local directives	192
IR147	COMTRAWING TWO, NAS Kingsville, TX 78363 DSN 876-6518/6283/6108, C361-516-6518/6	Same as Originating Activity. Scheduling hrs 0800-1600 Mon-Fri ONLY (excluding h	Sunrise to 30 minutes after Sunset, daily	122
IR148	COMTRAWING TWO, NAS Kingsville, TX 78363 DSN 876-6518/6283/6108, C361-516-6518/6	Same as Originating Activity. Scheduling hrs 0800-1600 Mon-Fri ONLY (excluding h	Daily 0600–2230 local	172
IR149	COMTRAWING TWO, NAS Kingsville, TX 78363 DSN 876-6518/6283/6108, C361-516-6518/6	Same as Originating Activity. Scheduling hrs 0800-1600 Mon-Fri ONLY (excluding h	Daily 0600–2230 local	213
IR150	7 OSS/OSOR, 966 Ave. D-4, Ste. 117, Dyess AFB, TX 79607 DSN 461-3666, C325-696-3	7 OSS/OSOR, 966 Ave. D-4, Ste. 117, Dyess AFB, TX 79607 DSN 461-3665, C325-696-3	Continuous	295
IR154	97 OSS/DOA, 400 N. Sixth Street, Bldg 164, Rm 4, Altus AFB, OK 73522 DSN 866-609	97 OSS/OSK, 516 S. Sixth Street, Ste A, Altus AFB, OK 73523 DSN 866-7110/6617.	0830–0230 local Mon–Fri	220
IR155	97 OSS/DOA, 400 N. Sixth Street, Bldg 164, Rm 4, Altus AFB, OK 73522 DSN 866-609	97 OSS/OSK, 516 S. Sixth Street, Ste A, Altus AFB, OK 73523 DSN 866-7110/6617.	0830–0230 local Mon–Fri	213
IR164	188 FW, 4850 Leigh Ave., Fort Smith, AR 72903-6096 DSN 778-5502.	Same as Originating Activity. Route scheduled no more than 24 hr in advance. Min	Continuous (except Sunday 1000–1200 local)	110
IR166	COMTRAWING TWO, NAS Kingsville, TX 78363 DSN 876-6518/6283/6108, C361-516-6518/6	Same as Originating Activity. Scheduling hrs 0800-1600 Mon-Fri ONLY (excluding h	0600–2400 local, daily	184

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** *Length calculations were performed using an the appropriate Universal Transverse Mercator zones.*

Source: Department of Defense based on data from the National Geospatial-Intelligence Agency (Digital Aeronautical Flight Information File, (effective: January 18, 2008 through Feburary 13, 2008).

Military Training Route Inventory

Military Training Route	Originating Agency*	Scheduling Agency*	Effective Times	Length (NM)**
IR167	COMTRAWING TWO, NAS Kingsville, TX 78363 DSN 876-6518/6283/6108, C361-516-6518/6	Same as Originating Activity. Scheduling hrs 0800-1600 Mon-Fri ONLY (excluding h	0600–2400 local, daily	119
IR169	47 OSS/OSOR, 570 2nd Street, Ste. 6, Laughlin AFB, TX 78843-5222 DSN 732-5864, C	87 FTS/DOS, 570 2nd Street, Laughlin AFB, TX 78843 DSN 732-5484, C830-298-5484.	Sunrise–Sunset Daily	175
IR170	47 OSS/OSOR, 570 2nd Street, Ste. 6, Laughlin AFB, TX 78843-5222 DSN 732-5864, C	87 FTS/DOS, 570 2nd Street, Laughlin AFB, TX 78843 DSN 732-5484, C830-298-5484.	Sunrise–Sunset Daily	191
IR171	71 FTW/OSOP, Vance AFB, OK 73705-5202 DSN 448-7850, C580-213-7850.	25 FTS/DISP, Vance AFB, OK 73705-5202 DSN 448-6038, C580-213-6038.	30 min after Sunrise–30 min before Sunset and active days per local directives	175
IR172	71 FTW/OSOP, Vance AFB, OK 73705-5202 DSN 448-7850, C580-213-7850.	Same as Originating Activity.	30 min after Sunrise–30 min before Sunset and active days per local directives	165
IR173	71 FTW/OSOP, Vance AFB, OK 73705-5202 DSN 448-7850, C580-213-7850.	Same as Originating Activity.	30 min after Sunrise–30 min before Sunset and active days per local directives	160
IR174	509 OSS/OSKA, 905 Spirit Blvd., Whiteman AFB, MO 65305 DSN 975-1713/1754, C660-6	Same as Originating Activity	Continuous	547
IR175	71 FTW/OSOP, Vance AFB, OK 73705-5202 DSN 448-7850, C580-213-7850.	25 FTS/DISP, Vance AFB, OK 73705-5202 DSN 448-6038, C580-213-6038.	30 min after Sunrise–30 min before Sunset and active days per local directives	204
IR177	7 OSS/OSOR, 966 Ave. D-4, Ste. 117, Dyess AFB, TX 79607 DSN 461-3666, C325-696-3	7 OSS/OSOR, 966 Ave. D-4, Ste. 117, Dyess AFB, TX 79607 DSN 461-3665, C325-696-3	Continuous	363
IR178	7 OSS/A3R, 965 Ave. D-4, Ste. 109, Dyess AFB, TX 79606 DSN 461-3666, C325-696-36	Same as Originating Activity.	Continuous	1027
IR180	7 OSS/A3R, 965 Ave. D-4, Ste. 109, Dyess AFB, TX 79606 DSN 461-3666, C325-696-36	7 OSS/A3R, 966 Ave. D-4, Ste. 109, Dyess AFB, TX 79606 DSN 461-3665, C325-696-36	Continuous	563
IR181	71 FTW/OSOP, Vance AFB, OK 73705-5202 DSN 448-7850, C580-213-7850.	25 FTS/DISP, Vance AFB, OK 73705-5202 DSN 448-6038, C580-213-6038.	30 min after Sunrise–30 min before Sunset and active days per local directives	175
IR182	71 FTW/OSOP, Vance AFB, OK 73705-5202 DSN 448-7850, C580-213-7850.	Same as Originating Activity.	30 min after Sunrise–30 min before Sunset and active days per local directives	165

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** *Length calculations were performed using an the appropriate Universal Transverse Mercator zones.*

Source: Department of Defense based on data from the National Geospatial-Intelligence Agency (Digital Aeronautical Flight Information File, (effective: January 18, 2008 through Feburary 13, 2008).

Military Training Route Inventory

Military Training Route	Originating Agency*	Scheduling Agency*	Effective Times	Length (NM)**
IR183	71 FTW/OSOP, Vance AFB, OK 73705-5202 DSN 448-7850, C580-213-7850.	Same as Originating Activity.	30 min after Sunrise–30 min before Sunset and active days per local directives	160
IR185	71 FTW/OSOP, Vance AFB, OK 73705-5202 DSN 448-7850, C580-213-7850.	25 FTS/DISP, Vance AFB, OK 73705-5202 DSN 448-6038, C580-213-6038.	30 min after Sunrise–30 min before Sunset and active days per local directives	204
IR192	49 OSS/OSOA, 700 Delaware Ave., Holloman AFB, NM 88330-8014 DSN 572-3244, C505-5	49 OSS/OSOS, 744 Delaware Ave., Holloman AFB, NM 88330-8014 DSN 572-3536, C505-5	Sunrise–0600Z++	533
IR193	97 OSS/DOA, 400 N Sixth St., Altus AFB, OK 73521 DSN 866-6098 C580-481-6098.	97 OSS/DOA, 400 N Sixth St., Ste 12, Altus AFB, OK 73521 DSN 866-7110.	0830–0230 local Mon–Fri	142
IR194	49 OSS/OSOA, 700 Delaware Ave., Holloman AFB, NM 88330-8014 DSN 572-3244, C505-5	49 OSS/OSOS, 744 Delaware Ave., Holloman AFB, NM 88330-8014 DSN 572-3536, C505-5	Sunrise–0600Z++	648
IR195	49 OSS/OSOA, 700 Delaware Ave., Holloman AFB, NM 88330-8014 DSN 572-3244, C505-5	49 OSS/OSOS, 744 Delaware Ave., Holloman AFB, NM 88330-8014 DSN 572-3536, C505-5	Sunrise–0600Z++	224
IR200	Commander Naval Air Warfare Center, Weapons Division, Code P529800E, (Naval Base	Commander Naval Air Warfare Center, Weapons Division, Code P529800E, (Naval Base	Sunrise–Sunset by NOTAM	650
IR203	Commander Strike Fighter Wing, US. Pacific Fleet, 001 (K) Street, Room 121, NAS	Same as Originating Activity	Daylight hours, OT by NOTAM	410
IR206	Commander Naval Air Warfare Center, Weapons Division, Code P3524, NAWS, Pt. Mugu	Commander Naval Air Warfare Center, Weapons Division, Code P3506, NAWS, Pt. Mugu	Daylight hours by NOTAM	120
IR207	Commander Strike Fighter Wing, US. Pacific Fleet, 001 (K) Street, Room 121, NAS	Same as Originating Activity	Daylight hours, OT by NOTAM	450
IR211	G-3, 3D MAW, MCAS Miramar, San Diego, CA 92145 DSN 267-9462, C858-577-9462. Non-	Same as Originating Activity	Continuous	152
IR212	G-3, 3D MAW, MCAS Miramar, San Diego, CA 92145 DSN 267-9462, C858-577-9462. Non-	Same as Originating Activity	Continuous	137
IR213	G-3, 3D MAW, MCAS Miramar, San Diego, CA 92145 DSN 267-9462, C858-577-9462. Non-	Same as Originating Activity	Continuous	270
IR214	G-3, 3D MAW, MCAS Miramar, San Diego, CA 92145 DSN 267-9462, C858-577-9462. Non-	Same as Originating Activity	Even numbered days only	265
IR216	G-3, 3D MAW, MCAS Miramar, San Diego, CA 92145 DSN 267-9462, C858-577-9462. Non-	Same as Originating Activity	Even numbered days–daylight only	53
IR217	G-3, 3D MAW, MCAS Miramar, San Diego, CA 92145 DSN 267-9462, C858-577-9462. Non-	Same as Originating Activity	Continuous	284
IR218	G-3, 3D MAW, MCAS Miramar, San Diego, CA 92145 DSN 267-9462, C858-577-9462. Non-	Same as Originating Activity	Continuous	229
IR234	Commander AFFTC, 412 OSS/OSAA, 235 S Flightline Rd, Edwards AFB, CA 93523-6460 D	Commander AFFTC, 412 OSS/OSR, 300 E Yeager Blvd, Edwards AFB, CA 93524 DSN 527-4	Daylight hours by NOTAM	165
IR235	Commander AFFTC, 412 OSS/OSAA, 235 S Flightline Rd, Edwards AFB, CA 93523-6460 D	Commander AFFTC, 412 OSS/OSR, 300 E Yeager Blvd, Edwards AFB, CA 93524 DSN 527-4	Daylight hours by NOTAM	165
IR236	Commander AFFTC, 412 OSS/OSAA, 235 S Flightline Rd, Edwards AFB, CA 93523-6460 D	Commander AFFTC, 412 OSS/OSR, 300 E Yeager Blvd, Edwards AFB, CA 93524 DSN 527-4	0600–2200 local, daily	320

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Source: Department of Defense based on data from the National Geospatial-Intelligence Agency (Digital Aeronautical Flight Information File, (effective: January 18, 2008 through Feburary 13, 2008).

Military Training Route Inventory

Military Training Route	Originating Agency*	Scheduling Agency*	Effective Times	Length (NM)**
IR237	Commander AFFTC, 412 OSS/OSAA, 235 S Flightline Rd, Edwards AFB, CA 93523-6460 D	Commander AFFTC, 412 OSS/OSR, 300 E Yeager Blvd, Edwards AFB, CA 93524 DSN 527-4	Daylight hours by NOTAM	130
IR238	Commander AFFTC, 412 OSS/OSAA, 235 S Flightline Rd, Edwards AFB, CA 93523-6460 D	Commander AFFTC, 412 OSS/OSCS, 306 E. Popson, Edwards AFB, CA 93524-6680 DSN 527	Daylight hours by NOTAM	130
IR250	G-3, 3D MAW, MCAS Miramar, San Diego, CA 92145 DSN 267-9462, C858-577-9462. Non-	Same as Originating Activity	Daylight hours on even even numbered days	251
IR252	G-3, 3D MAW, MCAS Miramar, San Diego, CA 92145 DSN 267-9462, C858-577-9462. Non-	Same as Originating Activity	Daylight hours on odd numbered days	158
IR254	G-3, 3D MAW, MCAS Miramar, San Diego, CA 92145 DSN 267-9462, C858-577-9462. Non-	Same as Originating Activity	Daylight hours, Mon–Fri	99
IR255	G-3, 3D MAW, MCAS Miramar, San Diego, CA 92145 DSN 267-9462, C858-577-9462. Non-	Same as Originating Activity	Daylight hours, daily	67
IR264	60 OSS/OSO, 611 E St., Travis AFB, CA 94535 DSN 837-1073, C707-424-1073.	60 OSS/OSO, 611 E St., Travis AFB, CA 94535 DSN 837-5582, C707-424-5582.	By NOTAM	339
IR266	7 OSS/OSOR, 966 Ave. D-4, Ste. 118, Dyess AFB, TX 79607 DSN 461-3666, C325-696-3	7 OSS/OSOR, 966 Ave. D-4, Ste. 117, Dyess AFB, TX 79607 DSN 461-3663, C325-696-3	Continuous	458
IR275	60 OSS/OSO, 611 E St., Travis AFB, CA 94535 DSN 837-1073, C707-424-1073.	60 OSS/OSO, 611 E St., Travis AFB, CA 94535 DSN 837-5582, C707-424-5582.	By NOTAM	380
IR279	57 OSS/OSM, Nellis AFB, NV 89191 DSN 682-7891, C702-652-7891.	57 OSS/OSOS, 4450 Tyndall Ave., Nellis AFB, NV 89191 DSN 682-2040, C702-652-2040	Continuous	49
IR280	60 OSS/OSO, 611 E St., Travis AFB, CA 94535 DSN 837-1073, C707-424-1073.	60 OSS/OSO, 611 E St., Travis AFB, CA 94535 DSN 837-5582, C707-424-5582.	By NOTAM	284
IR281	60 OSS/OSO, 611 E St., Travis AFB, CA 94535 DSN 837-1073, C707-424-1073.	60 OSS/OSO, 611 E St., Travis AFB, CA 94535 DSN 837-5582, C707-424-5582.	By NOTAM	296
IR282	60 OSS/OSO, 611 E St., Travis AFB, CA 94535 DSN 837-1073, C707-424-1073.	60 OSS/OSO, 611 E St., Travis AFB, CA 94535 DSN 837-5582, C707-424-5582.	By NOTAM	191
IR286	57 OSS/OSM, Nellis AFB, NV 89191 DSN 682-7891, C702-652-7891.	57 OSS/OSOS, 4450 Tyndall Ave., Nellis AFB, NV 89191 DSN 682-2040, C702-652-2040	Continuous	386
IR293	388 RANS/RST, 6606 Cedar Ln. bldg 1274, Hill AFB, UT 84056-5812 DSN 777-4401 C80	Same as Originating Activity.	By NOTAM	312
IR300	366 OSS/OSOS, Mountain Home AFB, ID 83648 DSN 728-2172/4607 C208-828-2172. Airsp	Same as Originating Activity. Scheduling requests 0730-1630 local Mon-Fri. After	By NOTAM	391
IR301	124 WG/OGAM (ANG), 3996 W. Aeronca St., Boise Air Terminal, ID 83705-8004 DSN 42	124 WG/OSS (ANG), 3996 W. Aeronca St., Boise Air Terminal, ID 83705-8004 DSN 422	Continuous or by NOTAM	402
IR302	124 WG/OGAM (ANG), 3996 W. Aeronca St., Boise Air Terminal, ID 83705-8004 DSN 42	124 WG/OSS (ANG), 3996 W. Aeronca St., Boise Air Terminal, ID 83705-8004 DSN 422	Continuous or by NOTAM	453
IR303	366 OSS/OSOS, Mountain Home AFB, ID 83648 DSN 728-2172/4607 C208-828-2172. Airsp	Same as Originating Activity. Scheduling requests 0730-1630 local Mon-Fri. After	By NOTAM	278
IR304	366 OSS/OSOS, Mountain Home AFB, ID 83648 DSN 728-2172/4607 C208-828-2172. Airsp	Same as Originating Activity. Scheduling requests 0730-1630 local Mon-Fri. After	By NOTAM	314
IR305	124 WG/OGAM (ANG), 3996 W. Aeronca St., Boise Air Terminal, ID 83705-8004 DSN 42	124 WG/OSS (ANG), 3996 W. Aeronca St., Boise Air Terminal, ID 83705-8004 DSN 422	Continuous or by NOTAM	422
IR307	124 WG/OGAM (ANG), 3996 W. Aeronca St., Boise Air Terminal, ID 83705-8004 DSN 42	124 WG/OSS (ANG), 3996 W. Aeronca St., Boise Air Terminal, ID 83705-8004 DSN 422	Continuous or by NOTAM	402
IR308	58 OSS/DOO, Kirtland AFB, NM 87117-5861 DSN 263-5979/5888, C505-853-5979/5888/57	Same as Originating Activity	Continuous	219
IR320	7 OSS/OSOR, 966 Ave. D-4, Ste. 118, Dyess AFB, TX 79607 DSN 461-3666, C325-696-3	7 OSS/OSOR, 1001 Ave. D-4, Ste. 107, Dyess AFB, TX 79607 DSN 461-3665, C325-696-	Continuous	853
IR324	62 OSS/OSK, 305 Pitsenberger Blvd., McCord AFB, WA 98438 DSN 382-4057, C253-982-	62 OSS/OSO, 100 Main St., McChord AFB, WA 98438 DSN 382-9925, C253-982-9925. Dut	Continuous	174
IR325	62 OSS/OSK, 305 Pitsenberger Blvd., McCord AFB, WA 98438 DSN 382-4057, C253-982-	62 OSS/OSO, 100 Main St., McChord AFB, WA 98438 DSN 382-9925, C253-982-9925. Dut	Continuous	162

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Source: Department of Defense based on data from the National Geospatial-Intelligence Agency (Digital Aeronautical Flight Information File, (effective: January 18, 2008 through Feburary 13, 2008).

Military Training Route Inventory

Military Training Route	Originating Agency*	Scheduling Agency*	Effective Times	Length (NM)**
IR326	62 OSS/OSK, 305 Pitsenberger Blvd., McCord AFB, WA 98438 DSN 382-4057, C253-982-	62 OSS/OSO, 100 Main St., McChord AFB, WA 98438 DSN 382-9925, C253-982-9925. Dut	Continuous	185
IR327	62 OSS/OSK, 305 Pitsenberger Blvd., McCord AFB, WA 98438 DSN 382-4057, C253-982-	62 OSS/OSO, 100 Main St., McChord AFB, WA 98438 DSN 382-9925, C253-982-9925. Dut	Continuous	168
IR328	62 OSS/OSK, 305 Pitsenberger Blvd., McCord AFB, WA 98438 DSN 382-4057, C253-982-	62 OSS/OSO, 100 Main St., McChord AFB, WA 98438 DSN 382-9925, C253-982-9925. Dut	Continuous	156
IR329	62 OSS/OSKA, 1172 Levitow Blvd., McCord AFB, WA 98438 DSN 382-3615, C253-982-361	62 OSS/OSO, 100 Main St., McChord AFB, WA 98438 DSN 382-9925, C253-982-9925. Dut	Continuous	156
IR330	62 OSS/OSK, 305 Pitsenberger Blvd., McCord AFB, WA 98438 DSN 382-4057, C253-982-	62 OSS/OSO, 100 Main St., McChord AFB, WA 98438 DSN 382-9925, C253-982-9925. Dut	Continuous	113
IR341	Commanding Officer (N38), NAS Whidbey Island, 3730 N. Charles Porter Ave., Oak H	Same as Originating Activity. Scheduling hours 0700-1600 local, Mon-Fri only. Sa	Continuous	293
IR342	Commanding Officer (N38), NAS Whidbey Island, 3730 N. Charles Porter Ave., Oak H	Same as Originating Activity. Scheduling hours 0700-1600 local, Mon-Fri only. Sa	Continuous	330
IR343	Commanding Officer (N38), NAS Whidbey Island, 3730 N. Charles Porter Ave., Oak H	Same as Originating Activity. Scheduling hours 0700-1600 local, Mon-Fri only. Sa	Continuous	472
IR344	Commanding Officer (N38), NAS Whidbey Island, 3730 N. Charles Porter Ave., Oak H	Same as Originating Activity. Scheduling hours 0700-1600 local, Mon-Fri only. Sa	Continuous	322
IR346	Commanding Officer (N38), NAS Whidbey Island, 3730 N. Charles Porter Ave., Oak H	Same as Originating Activity. Scheduling hours 0700-1600 local, Mon-Fri only. Sa	Continuous	333
IR348	Commanding Officer (N38), NAS Whidbey Island, 3730 N. Charles Porter Ave., Oak H	Same as Originating Activity. Scheduling hours 0700-1600 local, Mon-Fri only. Sa	Continuous	297
IR409	140th OG/CC Buckley ANGB Aurora, CO 80011-9546 DSN 847-9466, C720-847-9466.	140th OG/CC Buckley AFB Aurora, CO 80011-9546. Duty Hrs 0700-1700 DSN 847-9472,	0800–1600 local, Tue–Sat	194
IR414	140th Wing/Airspace Office Buckley AFB Aurora, CO 80011-9546 DSN 847-9470/9471,	140th Wing/Airspace Office Buckley AFB Aurora, CO 80011-9546. Duty Hrs 0700-1700	0800–1600 local, Tue–Sat; OT by NOTAM	106
IR415	140th OG/CC Buckley ANGB Aurora, CO 80011-9546 DSN 847-9466, C720-847-9466.	140th OG/CC Buckley AFB Aurora, CO 80011-9546. Duty Hrs 0700-1700 DSN 847-9472,	0800–1600 local, Tue–Sat; OT by NOTAM	174
IR416	140th Wing/Airspace Office Buckley AFB Aurora, CO 80011-9546 DSN 847-9470/9471,	140th Wing/Airspace Office Buckley AFB Aurora, CO 80011-9546. Duty Hrs 0700-1700	0800–1600 local, Tue–Sat; OT by NOTAM	320
IR418	388 RANS/RST, 6066 Cedar Lane, Hill AFB, UT 84056-5812 DSN 777-9384, C801-777-93	388 RANS/RST, 6066 Cedar Lane, Hill AFB, UT 84056-5812 DSN 777-4401, C801-777-44	0700–2400 local Mon–Thu, 0700–1800 local Fri, 0800–1700 local Sat	45
IR420	388 RANS/RST, 6066 Cedar Lane, Hill AFB, UT 84056-5812 DSN 777-9384, C801-777-93	388 RANS/RST, 6066 Cedar Lane, Hill AFB, UT 84056-5812 DSN 777-4401, C801-777-44	0700–2400 local Mon–Thu, 0700–1800 local Fri, 0800–1700 local Sat	40
IR424	140th Wing/Airspace Office Buckley AFB Aurora, CO 80011-9546 DSN 847-9470/9471,	140th Wing/Airspace Office Buckley AFB Aurora, CO 80011-9546. Duty Hrs 0700-1700	0800–1600 local, Tue–Sat; OT by NOTAM	152
IR425	Commander AFFTC, 412 OSS/OSAA, 235 S. Flightline Rd. Edwards AFB, CA 93523-6460	Commander AFFTC, 412 OSS/OSR, 300 E Yeager Blvd, Edwards AFB, CA 93524 DSN 527-4	Sunrise–Sunset by NOTAM	650

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Source: Department of Defense based on data from the National Geospatial-Intelligence Agency (Digital Aeronautical Flight Information File, (effective: January 18, 2008 through Feburary 13, 2008).

Military Training Route Inventory

Military Training Route	Originating Agency*	Scheduling Agency*	Effective Times	Length (NM)**
IR473	28 OSS/OSXA, 1956 Scott Dr., Ste. 201, Ellsworth AFB, SD 57706-4710 DSN 675-1230	28 OSS/OSXS, 1956 Scott Dr., Ste. 201, Ellsworth AFB, SD 57706-4710 DSN 675-4246	Continuous	708
IR479	120 FW/OSAD (ANG) 2800 Airport Ave. B, Great Falls, MT 59404 DSN 791-0186, C406-	Same as Originating Activity	By NOTAM	577
IR480	120 FW/OSAD (ANG) 2800 Airport Ave. B, Great Falls, MT 59404 DSN 791-0186, C406-	Same as Originating Activity	By NOTAM	418
IR485	28 OSS/OSXA, 1956 Scott Dr., Ste. 201, Ellsworth AFB, SD 57706-4710 DSN 675-1230	28 OSS/OSXS, 1956 Scott Dr., Ste. 201, Ellsworth AFB, SD 57706-4710 DSN 675-4246	Continuous	305
IR492	28 OSS/OSXA, 1956 Scott Dr., Ste. 201, Ellsworth AFB, SD 57706-4710 DSN 675-1230	28 OSS/OSXS, 1956 Scott Dr., Ste. 201, Ellsworth AFB, SD 57706-4710 DSN 675-4246	Continuous	583
IR499	28 OSS/OSXA, 1956 Scott Dr., Ste. 201, Ellsworth AFB, SD 57706-4710 DSN 675-1230	28 OSS/OSXS, 1956 Scott Dr., Ste. 201, Ellsworth AFB, SD 57706-4710 DSN 675-4246	Continuous	355
IR500	7 OSS/OSOR, 966 Ave. D-4, Ste. 117, Dyess AFB, TX 79607 DSN 461-3666, C325-696-3	7 OSS/OSOR, 966 Ave. D-4, Ste. 117, Dyess AFB, TX 79607 DSN 461-3665, C325-696-3	Continuous	542
IR501	7 OSS/OSOR, 966 Ave. D-4, Ste. 117, Dyess AFB, TX 79607 DSN 461-3666, C325-696-3	7 OSS/OSOR, 966 Ave. D-4, Ste. 117, Dyess AFB, TX 79607 DSN 461-3665, C325-696-3	Continuous	724
IR504	509 OSS/OSKA, 905 Spirit Blvd., Whiteman AFB, MO 65305 DSN 975-1713/1754, C660-6	Same as Originating Activity	Continuous	544
IR505	114 FW (ANG), Joe Foss Field, Siouz Falls, SD 57104-0264 DSN 798-7754/46, C605-9	Same as Originating Activity	Daylight hours, Mon–Sat, OT By NOTAM	139
IR508	114 FW (ANG), Joe Foss Field, Sioux Falls, SD 57104-0264 DSN 798-7745, C605-988-	114 FW (ANG), Joe Foss Field, Sioux Falls, SD 57104-0264 DSN 798-7754/7746, C605	Daylight hours, Mon–Sat, OT by NOTAM	239
IR509	114 FW (ANG), Joe Foss Field, Sioux Falls, SD 57104-0264 DSN 798-7745, C605-988-	114 FW (ANG), Joe Foss Field, Sioux Falls, SD 57104-0264 DSN 798-7754/7746, C605	Daylight hours, Tue–Sat, OT by NOTAM	306
IR513	184BW, DET 1, (SHANGR), 8429 W. Farrelly Rd., Smoky Hill ANG Range, Salina, KS 6	184BW (KANG), McConnell AFB, KS 67221-9010 DSN 743-7710 C316-687-7710	Continuous	342
IR514	114 FW (ANG), Joe Foss Field, Sioux Falls, SD 57104-0264 DSN 798-7754/46, C605-9	Same as Originating Activity	Daylight hours, Tue–Sat, OT by NOTAM	223
IR518	114 FW (ANG), Joe Foss Field, Sioux Falls, SD 57104-0264 DSN 798-7745, C605-988-	114 FW (ANG), Joe Foss Field, Sioux Falls, SD 57104-0264 DSN 798-7754/7746, C605	Daylight hours, Mon–Sat, OT by NOTAM	239
IR526	184BW, DET 1, (SHANGR), 8429 W. Farrelly Rd., Smoky Hill ANG Range, Salina, KS 6	184BW (KANG), McConnell AFB, KS 67221-9010 DSN 743-7710 C316-687-7710	Continuous	409
IR527	183 FW/OSF, Capital Airport, Springfield, IL 62707 DSN 892-8202.	Same as Originating Activity	Sunrise–Sunset	173
IR592	509 OSS/OSKA, 905 Spirit Blvd., Whiteman AFB, MO 65305 DSN 975-1713/1754, C660-6	509 OSS/OSOS, 905 Spirit Blvd., Whiteman AFB, MO 65305 DSN 975-1713/1754, C660-6	Continuous	649
IR605	148th FIG (ANG), Duluth Intl., MN 55811 DSN 825-7265.	Same as Originating Activity	Daily 1400–0500Z++, available OT	135
IR606	148th FIG (ANG), Duluth Intl., MN 55811 DSN 825-7265.	Same as Originating Activity	Daily 1400–0500Z++, Usage between 0500–1400Z++ is allowable	135
IR608	FACSFAC, Pensacola, FL 32508-5217 DSN 922-2735, C850-452-2735.	Same as Originating Activity	1200–0400Z++ Mon–Fri, weekends by NOTAM	258

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Source: Department of Defense based on data from the National Geospatial-Intelligence Agency (Digital Aeronautical Flight Information File, (effective: January 18, 2008 through Feburary 13, 2008).

Military Training Route Inventory

Military Training Route	Originating Agency*	Scheduling Agency*	Effective Times	Length (NM)**
IR609	5 OSS/OSTC, 300 Summit Dr., Minot AFB, ND 58705-5044 DSN 453-2967, C701-723-2967	23 BS/DOS, 300 Summit Dr., Minot AFB, ND 58705 DSN 453-2002/3527, C701-723-2002.	Continuous	796
IR610	5 OSS/OSTC, 300 Summit Dr., Minot AFB, ND 58705-5044 DSN 453-2967, C701-723-2967	23 BS/DOS, 300 Summit Dr., Minot AFB, ND 58705 DSN 453-2002/3527, C701-723-2002/	Continuous	777
IR613	114 FW (ANG), Joe Foss Field, Sioux Falls, SD 57104-0264 DSN 798-7754/46, C605-9	Same as Originating Activity	Daylight hours, Tue–Sat, OT by NOTAM	198
IR614	183 FW/OSF, Capital Airport, Springfield, IL 62707 DSN 892-8202.	Same as Originating Activity	Daylight hours	135
IR618	181 FW (ANG), Hulman Regional Airport, 1100 S. Petercheff St., Tere Haute, IN 47	Same as Originating Activity	Sunrise–Sunset, Tue–Sun, OT by NOTAM	134
IR644	5 OSS/OSTC, 300 Summit Dr., Minot AFB, ND 58705-5044 DSN 453-2967, C701-723-2967	23 BS/DOS, 300 Summit Dr., Minot AFB, ND 58705 DSN 453-2639/3527, C701-723-2639/	Continuous	606
IR649	5 OSS/OSTC, 300 Summit Dr., Minot AFB, ND 58705-5044 DSN 453-2967, C701-723-2967	23 BS/DOS, 300 Summit Dr., Minot AFB, ND 58705 DSN 453-2639/3527, C701-723-2639/	Continuous	186
IR654	5 OSS/OSTC, 300 Summit Dr., Minot AFB, ND 58705-5044 DSN 453-2967, C701-723-2967	23 BS/DOS, 300 Summit Dr., Minot AFB, ND 58705 DSN 453-2002/3527, C701-723-2002/	Continuous	689
IR655	5 OSS/OSTC, 300 Summit Dr., Minot AFB, ND 58705-5044 DSN 453-2967, C701-723-2967	23 BS/DOS, 300 Summit Dr., Minot AFB, ND 58705 DSN 453-2002/3527, C701-723-2002/	Continuous	1036
IR656	5 OSS/OSTC, 300 Summit Dr., Minot AFB, ND 58705-5044 DSN 453-2967, C701-723-2967	23 BS/DOS, 300 Summit Dr., Minot AFB, ND 58705 DSN 453-2002/3527, C701-723-2002/	Continuous	941
IR678	5 OSS/A-3C, 300 Summit Dr., Minot AFB, ND 58705-5044 DSN 453-2967, C701-723-2967	23 BS/DOS, 300 Summit Dr., Minot AFB, ND 58705-5044 DSN 453-2002/3527, C701-723-	Continuous	525
IR714	COMSTRKFIGHTWINGLANT, Oceana NAS, Virginia Beach, VA 23460 DSN 433-4013, C757-43	FACSFAC VACAPES, Oceana NAS, Virginia Beach, VA 23460 DSN 433-1228, C757-433-122	Continuous	336
IR715	COMSTRKFIGHTWINGLANT, Oceana NAS, Virginia Beach, VA 23460 DSN 433-4013, C757-43	FACSFAC VACAPES, Oceana NAS, Virginia Beach, VA 23460 DSN 433-1228, C757-433-122	Continuous	398
IR718	COMSTRKFIGHTWINGLANT, Oceana NAS, Virginia Beach, VA 23460 DSN 433-4013, C757-43	FACSFAC VACAPES, Oceana NAS, Virginia Beach, VA 23460 DSN 433-1228, C757-433-122	Continuous	494
IR719	COMSTRKFIGHTWINGLANT, Oceana NAS, Virginia Beach, VA 23460 DSN 433-4013, C757-43	FACSFAC VACAPES, Oceana NAS, Virginia Beach, VA 23460 DSN 433-1228, C757-433-122	Continuous	425
IR720	COMSTRKFIGHTWINGLANT, Oceana NAS, Virginia Beach, VA 23460 DSN 433-4013, C757-43	FACSFAC VACAPES, Oceana NAS, Virginia Beach, VA 23460 DSN 433-1228, C757-433-122	Continuous	407
IR721	20 OSS/OSOA, Shaw AFB, SC 29152-5000 DSN 965-1121/1122, C803-895-1121/1122, Fax	20 OSS/OSOS, Shaw AFB, SC 29152 Duty hrs DSN 965-1118/1119, C803-895-1118/1119.	Continuous	199
IR723	FACSFAC, Penscola, FL 32508-5217, DSN 922-2735, C850-452-2735.	Same as Originating Activity	1200–0400Z++ Mon–Fri, occasionally weekends	262
IR726	20 OSS/OSOA, Shaw AFB, SC 29152-5000 DSN 965-1121/1122, C803-895-1121/1122, Fax	20 OSS/OSOS, Shaw AFB, SC 29152-5000 Duty hours DSN 965-1118/1119, C803-895-1118	Continuous	144
IR743	20 OSS/OSOA, Shaw AFB, SC 29152-5000 DSN 965-1121/1122, C803-895-1121/1122, Fax	20 OSS/OSOS, Shaw AFB, SC 29152 Duty hrs DSN 965-1118/1119, C803-895-1118/1119.	Continuous	144
IR760	COMSTRKFIGHTWINGLANT, Oceana NAS, Virginia Beach, VA 23460 DSN 433-4013, C757-43	FACSFAC VACAPES, Oceana NAS, Virginia Beach, VA 23460 DSN 433-1228, C757-433-122	Continuous	362
IR761	COMSTRKFIGHTWINGLANT, Oceana NAS, Virginia Beach, VA 23460 DSN 433-4013, C757-43	FACSFAC VACAPES, Oceana NAS, Virginia Beach, VA 23460 DSN 433-1228, C757-433-122	Continuous	324
IR762	COMSTRKFIGHTWINGLANT, Oceana NAS, Virginia Beach, VA 23460 DSN 433-4013, C757-43	FACSFAC VACAPES, Oceana NAS, Virginia Beach, VA 23460 DSN 433-1228, C757-433-122	Continuous	324
IR800	104 FW, Barnes ANGB, Westfield, MA 01085-1385 DSN 636-9228/9229, C413-568-9151 e	Same as Originating Activity	Continuous	895
IR801	174 FW, Det 1, Ft. Drum, NY 13608 DSN 772-5990/2835, C315-772-5990.	Same as Originating Activity	Continuous	296
IR802	5 OSS/OSTC, 300 Summit Dr., Minot AFB, ND 58705-5044 DSN 453-2967, C701-723-2967	23 BS/DOS, 300 Summit Dr., Minot AFB, ND 58705 DSN 453-2002/3527, C701-723-2002/	Continuous	543

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Source: Department of Defense based on data from the National Geospatial-Intelligence Agency (Digital Aeronautical Flight Information File, (effective: January 18, 2008 through Feburary 13, 2008).

Military Training Route Inventory

Military Training Route	Originating Agency*	Scheduling Agency*	Effective Times	Length (NM)**
IR803	5 OSS/OSTC, 300 Summit Dr., Minot AFB, ND 58705-5044 DSN 453-2967, C701-723-2967	23 BS/DOS, 300 Summit Dr., Minot AFB, ND 58705 DSN 453-2002/3527, C701-723-2002/	Continuous	385
IR804	5 OSS/OSTC, 300 Summit Dr., Minot AFB, ND 58705-5044 DSN 453-2967, C701-723-2967	23 BS/DOS, 300 Summit Dr., Minot AFB, ND 58705 DSN 453-2002/3527, C701-723-2002/	Continuous	1218
IR805	5 OSS/OSTC, 300 Summit Dr., Minot AFB, ND 58705-5044 DSN 453-2967, C701-723-2967	23 BS/DOS, 300 Summit Dr., Minot AFB, ND 58705 DSN 453-2002/3527, C701-723-2002/	Continuous	587
IR850	Commander, Naval Air Warfare Center Weapons Division, Code 52EOOOE, NAWS, Pt. Mu	Commander, Naval Air Warfare Center Weapons Division, Code 52911GE, NAWS, Pt. Mu	Sunrise–Sunset by NOTAM	295
IR851	Commander, Naval Air Warfare Center Weapons Division, Code 52EOOOE, NAWS, Pt. Mu	Commander, Naval Air Warfare Center Weapons Division, Code 52911GE, NAWS, Pt. Mu	Daily Sunrise–Sunset	391
IR852	Commander, Naval Air Warfare Center Weapons Division, Code 52EOOOE, NAWS, Pt. Mu	Commander, Naval Air Warfare Center Weapons Division, Code 52911GE, NAWS, Pt. Mu	Sunrise–Sunset	199
IR900	611 AOG/CC, 9480 Pease Ave., Ste. 102, Elmendorf AFB, AK 99506-2100 DSN 317-552-	353 CTS/JSO, Eielson AFB, AK 99702 DSN 317-377-3005, C907-377-3005.	Normal use 0800–2000 local Mon–Fri, Not available 2200–0700 local	160
IR901	611 AOG/CC, 9480 Pease Ave., Ste. 102, Elmendorf AFB, AK 99506-2100 DSN 317-552-	3 OSS/OSOS, Elmendorf AFB, AK 99506 DSN 317-552-2406, C907-552-2406.	Normal use 0800–2000 local Mon–Fri, Not available 2200–0700 local	67
IR902	611 AOG/CC, 9480 Pease Ave., Ste. 102, Elmendorf AFB, AK 99506-2100 DSN 317-552-	3 OSS/OSOS, Elmendorf AFB, AK 99506 DSN 317-552-2406, C907-552-2406.	Normal use 0800–2000 local Mon–Fri, Not available 2200–0700 local	175
IR903	611 AOG/CC, 9480 Pease Ave., Ste. 102, Elmendorf AFB, AK 99506-2100 DSN 317-552-	3 OSS/OSOS, Elmendorf AFB, AK 99506 DSN 317-552-2406, C907-552-2406.	Normal use 0800–2000 local Mon–Fri, Not available 2200–0700 local	206
IR905	611 AOG/CC, 9480 Pease Ave., Ste. 102, Elmendorf AFB, AK 99506-2100 DSN 317-552-	3 OSS/OSOS, Elmendorf AFB, AK 99506 DSN 317-552-2406, C907-552-2406.	Normal use 0800–2000 local Mon–Fri, Not available 2200–0700 local	469
IR909	611 AOG/CC, 9480 Pease Ave., Ste. 102, Elmendorf AFB, AK 99506-2100 DSN 317-552-	353 CTS/JSO, Eielson AFB, AK 99702 DSN 317-377-3005, C907-377-3005.	Normal use 0800–2000 local Mon–Fri, Not available 2200–0700 local	76
IR911	611 AOG/CC, 9480 Pease Ave., Ste. 102, Elmendorf AFB, AK 99506-2100 DSN 317-552-	3 OSS/OSOS, Elmendorf AFB, AK 99506 DSN 317-552-2406, C907-552-2406.	Normal use 0800–2000 local Mon–Fri, Not available 2200–0700 local	67
IR912	611 AOG/CC, 9480 Pease Ave., Ste. 102, Elmendorf AFB, AK 99506-2100 DSN 317-552-	3 OSS/OSOS, Elmendorf AFB, AK 99506 DSN 317-552-2406, C907-552-2406.	Normal use 0800–2000 local Mon–Fri, Not available 2200–0700 local	175
IR913	611 AOG/CC, 9480 Pease Ave., Ste. 102, Elmendorf AFB, AK 99506-2100 DSN 317-552-	3 OSS/OSOS, Elmendorf AFB, AK 99506 DSN 317-552-2406, C907-552-2406.	Normal use 0800–2000 local Mon–Fri, Not available 2200–0700 local	206

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Source: Department of Defense based on data from the National Geospatial-Intelligence Agency (Digital Aeronautical Flight Information File, (effective: January 18, 2008 through Feburary 13, 2008).

Military Training Route Inventory

Military Training Route	Originating Agency*	Scheduling Agency*	Effective Times	Length (NM)**
IR915	611 AOG/CC, 9480 Pease Ave., Ste. 102, Elmendorf AFB, AK 99506-2100 DSN 317-552-	3 OSS/OSOS, Elmendorf AFB, AK 99506 DSN 317-552-2406, C907-552-2406.	Normal use 0800–2000 local Mon–Fri, Not available 2200–0700 local	176
IR916	611 AOG/CC, 9480 Pease Ave., Ste. 102, Elmendorf AFB, AK 99506-2100 DSN 317-552-	353 CTS/JSO, Eielson AFB, AK 99702 DSN 317-377-3005, C907-377-3005.	Normal use 0800–2000 local Mon–Fri, Not available 2200–0700 local	137
IR917	611 AOG/CC, 9480 Pease Ave., Ste. 102, Elmendorf AFB, AK 99506-2100 DSN 317-552-	353 CTS/JSO, Eielson AFB, AK 99702 DSN 317-377-3005, C907-377-3005.	Normal use 0800–2000 local Mon–Fri, Not available 2200–0700 local	147
IR918	611 AOG/CC, 9480 Pease Ave., Ste. 102, Elmendorf AFB, AK 99506-2100 DSN 317-552-	353 CTS/JSO, Eielson AFB, AK 99702 DSN 317-377-3005, C907-377-3005.	Normal use 0800–2000 local Mon–Fri, Not available 2200–0700 local	127
IR919	611 AOG/CC, 9480 Pease Ave., Ste. 102, Elmendorf AFB, AK 99506-2100 DSN 317-552-	353 CTS/JSO, Eielson AFB, AK 99702 DSN 317-377-3005, C907-377-3005.	Normal use 0800–2000 local Mon–Fri, Not available 2200–0700 local	207
IR921	611 AOG/CC, 9480 Pease Ave., Ste. 102, Elmendorf AFB, AK 99506-2100 DSN 317-552-	353 CTS/JSO, Eielson AFB, AK 99702 DSN 317-377-3005, C907-377-3005.	Normal use 0800–2000 local Mon–Fri, Not available 2200–0700 local	161
IR922	611 AOG/CC, 9480 Pease Ave., Ste. 102, Elmendorf AFB, AK 99506-2100 DSN 317-552-	353 CTS/JSO, Eielson AFB, AK 99702 DSN 317-377-3005, C907-377-3005.	Normal use 0800–2000 local Mon–Fri, Not available 2200–0700 local	106
IR923	611 AOG/CC, 9480 Pease Ave., Ste. 102, Elmendorf AFB, AK 99506-2100 DSN 317-552-	353 CTS/JSO, Eielson AFB, AK 99702 DSN 317-377-3005, C907-377-3005.	Normal use 0800–2000 local Mon–Fri, Not available 2200–0700 local	106
IR926	611 AOG/CC, 9480 Pease Ave., Ste. 102, Elmendorf AFB, AK 99506-2100 DSN 317-552-	353 CTS/JSO, Eielson AFB, AK 99702 DSN 317-377-3005, C907-377-3005.	Normal use 0800–2000 local Mon–Fri, Not available 2200–0700 local	102
IR927	611 AOG/CC, 9480 Pease Ave., Ste. 102, Elmendorf AFB, AK 99506-2100 DSN 317-552-	353 CTS/JSO, Eielson AFB, AK 99702 DSN 317-377-3005, C907-377-3005.	Normal use 0800–2000 local Mon–Fri, Not available 2200–0700 local	52
IR928	611 AOG/CC, 9480 Pease Ave., Ste. 102, Elmendorf AFB, AK 99506-2100 DSN 317-552-	353 CTS/JSO, Eielson AFB, AK 99702 DSN 317-377-3005, C907-377-3005.	Normal use 0800–2000 local Mon–Fri, Not available 2200–0700 local	37

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Military Training Route Inventory

Military Training Route	Originating Agency*	Scheduling Agency*	Effective Times	Length (NM)**
IR929	611 AOG/CC, 9480 Pease Ave., Ste. 102, Elmendorf AFB, AK 99506-2100 DSN 317-552-	353 CTS/JSO, Eielson AFB, AK 99702 DSN 317-377-3005, C907-377-3005.	Normal use 0800–2000 local Mon–Fri, Not available 2200–0700 local	37
IR939	611 AOG/CC, 9480 Pease Ave., Ste. 102, Elmendorf AFB, AK 99506-2100 DSN 317-552-	353 CTS/JSO, Eielson AFB, AK 99702 DSN 317-377-3005, C907-377-3005.	Normal use 0800–2000 local Mon–Fri, Not available 2200–0700 local	76
IR952	611 AOG/CC, 9480 Pease Ave., Ste. 102, Elmendorf AFB, AK 99506-2100 DSN 317-552-	353 CTS/JSO, Eielson AFB, AK 99702 DSN 317-377-3005, C907-377-3005.	Normal use 0800–2000 local Mon–Fri, Not available 2200–0700 local	672
IR953	611 AOG/CC, 9480 Pease Ave., Ste. 102, Elmendorf AFB, AK 99506-2100 DSN 317-552-	353 CTS/JSO, Eielson AFB, AK 99702 DSN 317-377-3005, C907-377-3005.	Normal use 0800–2000 local Mon–Fri, Not available 2200–0700 local	477
IR983	PACAF/DOCS, 25 E ST, SUITE I232, HICKAM AFB, HI 96853-5426 DSN 449-4173.	36 OSS/OSA, UNIT 14035, APO AP 96542-4035 DSN(315)-366-2770.	Continuous	567
SR038	Base Operations, Lawson AAF, Fort Benning, Ga. DSN 835-3524/2857 C706-545-3524.	Same as Originating Activity	Continuous	159
SR039	Base Operations, Lawson AAF, Fort Benning, Ga. DSN 835-3524/2857 C706-545-3524.	Same as Originating Activity	Continuous	95
SR040	94/OSS Dobbins AFB, GA 30069-5009 DSN 625-3498, C678-655-3498.	Same as Originating Activity	1200–0300Z ++	107
SR059	118 AW, 240 Knapp Blvd, Nashville, TN 37217, DSN 778-6362/6342, C615-399-5662/56	Same as Originating Activity	Continuous	178
SR060	118 AW, 240 Knapp Blvd, Nashville, TN 37217, DSN 778-6362/6342, C615-399-5662/56	Same as Originating Activity	Continuous	173
SR061	118 AW, 240 Knapp Blvd, Nashville, TN 37217, DSN 778-6362/6342, C615-399-5662/56	Same as Originating Activity	Continuous	125
SR062	118 AW, 240 Knapp Blvd, Nashville, TN 37217, DSN 778-6362/6342, C615-399-5662/56	Same as Originating Activity	Continuous	122
SR069	908 OSF/DOO, 430 W Maxwell Blvd, Bldg 1050, Maxwell AFB, AL 36112-6591 DSN 493-7	Same as Originating Activity	1400–0400Z++	124
SR070	908 OSF/DOO, 430 W Maxwell Blvd, Bldg 1050, Maxwell AFB, AL 36112-6591 DSN 493-7	Same as Originating Activity	1400–0400Z++	155
SR071	908 OSF/DOO, 430 W Maxwell Blvd, Bldg 1050, Maxwell AFB, AL 36112-6591 DSN 493-7	Same as Originating Activity	1300–0500Z++	150
SR072	908 OSF/DOO, 430 W Maxwell Blvd, Bldg 1050, Maxwell AFB, AL 36112-6591 DSN 493-7	Same as Originating Activity	1300–0500Z++	156
SR073	164 AW (ANG), Memphis Intl, TN 38118 DSN 726-7131.	Columbus AFB, MS DSN 742-7840/7847 C662-434-7840/7847.	Continuous	148
SR074	164 AW (ANG), Memphis Intl, TN 38118 DSN 726-7131.	Columbus AFB, MS DSN 742-7840/7847 C662-434-7840/7847.	Continuous	164
SR075	164 AW (ANG), Memphis Intl, TN 38118 DSN 726-7131.	Columbus AFB, MS DSN 742-7840/7847 C662-434-7840/7847.	Continuous	120
SR1001	3 OSS/DOH, 10460 L Street, Elmendorf AFB, AK 99506-2670 DSN 317-552-4658, C907-5	3 OSS/DOTS, DSN 317-552-3457, C907-552-3457.	Continuous	172
SR1002	3 OSS/DOH, 10460 L Street, Elmendorf AFB, AK 99506-2670 DSN 317-552-4658, C907-5	3 OSS/DOTS, DSN 317-552-3457, C907-552-3457.	Continuous	77
SR1003	3 OSS/DOH, 10460 L Street, Elmendorf AFB, AK 99506-2670 DSN 317-552-4658, C907-5	3 OSS/DOTS, DSN 317-552-3457, C907-552-3457.	Continuous	109

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** *Length calculations were performed using an the appropriate Universal Transverse Mercator zones.*

Source: Department of Defense based on data from the National Geospatial-Intelligence Agency (Digital Aeronautical Flight Information File, (effective: January 18, 2008 through Feburary 13, 2008).

Military Training Route Inventory

Military Training Route	Originating Agency*	Scheduling Agency*	Effective Times	Length (NM)**
SR1004	3 OSS/DOH, 10460 L Street, Elmendorf AFB, AK 99506-2670 DSN 317-552-4658, C907-5	3 OSS/DOTS, DSN 317-552-3457, C907-552-3457.	Continuous	77
SR1005	3 OSS/DOH, 10460 L Street, Elmendorf AFB, AK 99506-2670 DSN 317-552-4658, C907-5	3 OSS/DOTS, DSN 317-552-3457, C907-552-3457.	Continuous	139
SR1006	3 OSS/DOH, 10460 L Street, Elmendorf AFB, AK 99506-2670 DSN 317-552-4658, C907-5	3 OSS/DOTS, DSN 317-552-3457, C907-552-3457.	Continuous	53
SR1007	3 OSS/DOH, 10460 L Street, Elmendorf AFB, AK 99506-2670 DSN 317-552-4658, C907-5	3 OSS/DOTS, DSN 317-552-3457, C907-552-3457.	Continuous	71
SR1008	3 OSS/DOH, 10460 L Street, Elmendorf AFB, AK 99506-2670 DSN 317-552-4658, C907-5	3 OSS/DOTS, DSN 317-552-3457, C907-552-3457.	Continuous	110
SR1009	3 OSS/DOH, 10460 L Street, Elmendorf AFB, AK 99506-2670 DSN 317-552-4658, C907-5	3 OSS/DOTS, DSN 317-552-3457, C907-552-3457.	Continuous	182
SR101	16 OSS/DOO, Hurlburt Field, FL 32544 DSN 579-6877/7812, C850-884-6877/7812.	Same as Originating Activity	Continuous	907
SR1010	3 OSS/DOH, 10460 L Street, Elmendorf AFB, AK 99506-2670 DSN 317-552-4658, C907-5	3 OSS/DOTS, DSN 317-552-3457, C907-552-3457.	Continuous	147
SR102	16 OSS/DOO, Hurlburt Field, FL 32544 DSN 579-6877/7812, C850-884-6877/7812.	Same as Originating Activity	Continuous	291
SR103	16 OSS/DOO, Hurlburt Field, FL 32544 DSN 579-6877/7812, C850-884-6877/7812.	Same as Originating Activity	Continuous	433
SR104	16 OSS/DOO, Hurlburt Field, FL 32544 DSN 579-6877/7812, C850-884-6877/7812.	Same as Originating Activity	Continuous	823
SR105	16 OSS/DOO, Hurlburt Field, FL 32544 DSN 579-6877/7812, C850-884-6877/7812.	Same as Originating Activity	Continuous	227
SR106	16 OSS/DOO, Hurlburt Field, FL 32544 DSN 579-6877/7812, C850-884-6877/7812.	Same as Originating Activity	Continuous	426
SR119	16 OSS/DOO, Hurlburt Field, FL 32544 DSN 579-6877/7812, C850-884-6877/7812.	Same as Originating Activity	Continuous	801
SR137	14 OSS/OSOP, Columbus AFB, MS 39710-5000 DSN 742-7560/7633, C662-434-7560/7633.	37/41 FTS, Columbus AFB, MS 39710-5000 DSN 742-7666/7667, C662-434-7666/7667.	SR–SS, Daily	143
SR138	14 OSS/OSOP, Columbus AFB, MS 39710 DSN 742-7560/7633, C662-434-7560/7633.	37/41 FTS, Columbus AFB, MS 39710 DSN 742-7666/7667, C662-434-7666/7667.	SR–SS, Daily	143
SR166	437 OSS/OSTA, Charleston AFB, SC 29404-5054 DSN 673-5613, C843-963-5613.	20 OSS/OSOS, Shaw AFB, SC 29152-5000 DSN 965-1118/1119, C803-895-1118/1119, FAX	Continuous	153
SR200	58 OSS/DOO, Kirtland AFB, NM 87117-5861 DSN 263-5979/5888/5701, C505-853-5979/58	Same as Originating Activity	Continuous	242
SR201	58 OSS/DOO, Kirtland AFB, NM 87117-5861 DSN 263-5979/5888/5701, C505-853-5979/58	Same as Originating Activity	Continuous	421
SR205	97 OSS/DOA, 400 N. 6th Street, Altus AFB, OK 73521 DSN 866-6098, C580-481-6098.	97 OSS/OSK 400 N. 6th Street, Suite 12, Altus AFB, OK 73521 DSN 866-7110, C580-4	0830–0230 Local Mon–Fri	88
SR206	97 OSS/DOA, 400 N. 6th Street, Altus AFB, OK 73521 DSN 866-6098, C580-481-6098.	97 OSS/OSK 400 N. 6th Street, Suite 12, Altus AFB, ok 73521 dsn 866-7110, C580-4	0830–0230 Local Mon–Fri	99
SR208	97 OSS/DOA, 400 N. 6th Street, Altus AFB, OK 73521 DSN 866-6098, C580-481-6098.	97 OSS/OSK, 400 N. 6th Street, Suite 12, Altus AFB, OK DSN 866-7110, C580-481-71	0830–0230 Local Mon–Fri	116
SR210	58 OSS/DOO, Kirtland AFB, NM 87117-5861 DSN 263-5979/5888/5701, C505-853-5979/58	Same as Originating Activity	Continuous	148
SR211	58 OSS/DOO, Kirtland AFB, NM 871175861 DSN 263-5979/5888/5701, C505-853-5979/588	Same as Originating Activity	Continuous	189
SR212	58 SOW, 4249 Hercules Way SE, Kirtland AFB, NM 87117 DSN 263-5701, C505-853-5701	58 OSS/DOO, 4249 Hercules Way SE, Kirtland AFB, NM 87117 DSN 263-5701, C505-853-	Continuous	230
SR213	58 SOW, 4249 Hercules Way SE, Kirtland AFB, NM 87117 DSN 263-5701, C505-853-5701	58 OSS/DOO, 4249 Hercules Way SE, Kirtland AFB, NM 87117 DSN 263-5701, C505-853-	Continuous	235
SR214	58 SOW, 4249 Hercules Way SE, Kirtland AFB, NM 87117 DSN 263-5701, C505-853-5701	58 OSS/DOO, 4249 Hercules Way SE, Kirtland AFB, NM 87117 DSN 263-5701, C505-853-	Continuous	249
SR216	97 OSS/DOA, 400 N. 6th Street, Altus AFB, OK 73521 DSN 866-6098, C580-481-6098.	97 OSS/OSK, 400 N. 6th Street, Suite 12, Altus AFB, OK 73521 DSN 866-7110, C580-	0830–0230 Local Mon–Fri	111

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** *Length calculations were performed using an the appropriate Universal Transverse Mercator zones.*

Source: Department of Defense based on data from the National Geospatial-Intelligence Agency (Digital Aeronautical Flight Information File, (effective: January 18, 2008 through Feburary 13, 2008).

Military Training Route Inventory

Military Training Route	Originating Agency*	Scheduling Agency*	Effective Times	Length (NM)**
SR217	97 OSS/DOA, 400 N. 6th Street, Altus AFB, OK 73521 DSN 866-6098, C580-481-6098.	97 OSS/OSK, 400 N. 6th Street, Suite 12, Altus AFB, OK 73521 DSN 866-7110, C580-	0830–0230 Local Mon–Fri	114
SR218	314 OSS/OSK, 380 Chief Williams Drive, Little Rock AFB, AR 72099-4976 DSN 731-33	Same as Originating Activity	Continuous	303
SR219	314 OSS/OSK, 380 Chief WilliamsDrive, Little Rock AFB, AR 72099-4976 DSN 731-330	Same as Originating Activity.	Continuous	262
SR220	314 OSS/OSK, 380 Chief Williams Drive, Little Rock AFB, AR 72099-4976 DSN 731-33	Same as Originating Activity	Continuous	198
SR221	314 OSS/OSK, 380 Chief Williams Drive, Little Rock AFB, AR 72099-4976 DSN 731-33	Same as Originating Activity	Continuous	840
SR222	314 OSS/OSK, 380 Chief Williams Drive, Little Rock AFB, AR 72099-4976 DSN 731-33	Same as Originating Activity	Continuous	131
SR223	314 OSS/OSK, 380 Chief Williams Drive, Little Rock AFB, AR 72099-4976 DSN 731-33	Same as Originating Activity	Continuous	138
SR224	314 OSS/OSK, 380 Chief Williams Drive, Little Rock AFB, AR 72099-4976 DSN 731-33	Same as Originating Activity	Continuous	292
SR225	314 OSS/OSK, 380 Chief Williams Drive, Little Rock AFB, AR 72099-4976 DSN 731-33	Same as Originating Activity	Continuous	362
SR226	314 OSS/OSK, 380 CMSGT Williams Street, Little Rock AFB, AR 72099-4976 DSN 731-3	314 OSS/OSK, 380 CMSGT Williams Street, Little Rock AFB, AR 72099-4976 DSN 731-3	Continuous	73
SR227	314 OSS/OSK, 380 Chief Williams Drive, Little Rock AFB, AR 72099-4976 DSN 731-33	Same as Originating Activity	Continuous	279
SR228	301 OG/SUA, NAS JRB Fort Worth, TX DSN 739-6903/6904/6905, C817-782-6903/6904/69	Same as Originating Activity	Continuous	193
SR229	314 OSS/OSK, 380 Chief Williams Drive, Little Rock AFB, AR 72099-4976 DSN 731-33	Same as Originating Activity	Continuous	248
SR230	314 OSS/OSK, 380 Chief Williams Drive, Little Rock AFB, AR 72099-4976 DSN 731-33	Same as Originating Activity	Continuous	311
SR231	314 OSS/OSK, 380 Chief Williams Drive, Little Rock AFB, AR 72099-4976 DSN 731-33	Same as Originating Activity.	Continuous	302
SR232	314 OSS/OSK, 380 Chief Williams Drive, Little Rock AFB, AR 72099-4976 DSN 731-33	Same as Originating Activity	Continuous	239
SR233	7 WG, Dyess AFB, TX 79607 DSN 461-2318.	Same as Originating Activity	Continuous	204
SR234	7 WG, Dyess AFB, TX 79607 DSN 461-2318.	Same as Originating Activity	Continuous	126
SR235	71 FTW/OSOP, Vance AFB, OK 73705-5202 DSN 448-7850 C580-213-7850.	8 FTS/DOO, Vance AFB, OK 73705-5202 DSN 448-6037 C580-213-6037	Sunrise–Sunset and active days per local directives	126
SR236	317 AG, Dyess AFB, TX 79607 DSN 461-2318.	Same as Originating Activity	Continuous	196
SR237	314 OSS/OSK, 380 Chief Williams Drive, Little Rock AFB, AR 72099-4976 DSN 731-33	Same as Originating Activity	Continuous	107
SR238	314 OSS/OSK, 380 Chief Williams Drive, Little Rock AFB, AR 72099-4976 DSN 731-33	Same as Originating Activity	Continuous	98
SR239	314 OSS/OSK, 380 CMSGT Williams Street, Little Rock AFB, AR 72099-4976 DSN 731-3	314 OSS/OSK, 380 CMSGT Williams Street, Little Rock AFB, AR 72099-4976 DSN 731-3	Continuous	139
SR240	7 WG, Dyess AFB, TX 79607 DSN 461-2318.	Same as Originating Activity	Continuous	134
SR241	71 FTW/OSOP, Vance AFB, OK 73705-5202 DSN 448-7850 C580-213-7850.	8 FTS/DOO, Vance AFB, OK 73705-5202 DSN 448-6037 C580-213-6037.	Sunrise–Sunset and active days per local directives	143
SR242	317 AG, Dyess AFB, TX 79607 DSN 461-2318.	Same as Originating Activity	Continuous	193

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** *Length calculations were performed using an the appropriate Universal Transverse Mercator zones.*

Source: Department of Defense based on data from the National Geospatial-Intelligence Agency (Digital Aeronautical Flight Information File, (effective: January 18, 2008 through Feburary 13, 2008).

Military Training Route Inventory

Military Training Route	Originating Agency*	Scheduling Agency*	Effective Times	Length (NM)**
SR243	7 WG, Dyess AFB, TX 79607 DSN 461-2318.	Same as Originating Activity	Continuous	163
SR244	317 AG, Dyess AFB, TX 79607 DSN 461-2318.	Same as Originating Activity	Continuous	119
SR245	7 WG, Dyess AFB, TX 79607 DSN 461-2318.	Same as Originating Activity	Continuous	129
SR246	314 OSS/OSK, 380 Chief Williams Drive, Little Rock AFB, AR 72099-4976 DSN 731-33	Same as Originating Activity.	Continuous	230
SR247	71 FTW/OSOP, Vance AFB, OK 73705-5202 DSN 448-7850 C580-213-7850.	8 FTS/DOO, Vance AFB, OK 73705-5202 DSN 448-6037 C580-213-6037.	Sunrise–Sunset and active days per local directives	143
SR249	7 WG, Dyess AFB, TX 79607 DSN 461-2318.	Same as Originating Activity	Continuous	197
SR250	317 AG, Dyess AFB, TX 79607 DSN 461-2318.	Same as Originating Activity	Continuous	81
SR251	7 WG, Dyess AFB, TX 79607 DSN 461-2318.	Same as Originating Activity	Continuous	73
SR253	71 FTS/OSOP, Vance AFB, OK 73705-5202 DSN 448-7850 C580-213-7850.	8FTS/DOO, Vance AFB, OK 73705-5202 DSN 448-6037 C580-213-6037.	Sunrise–Sunset and active days per local directives	126
SR255	7 WG, Dyess AFB, TX 79607 DSN 461-2318.	Same as Originating Activity	Continuous	86
SR258	317 WG, Dyess AFB, TX 79607 DSN 461-2318.	Same as Originating Activity	Continuous	172
SR261	317 WG, Dyess AFB, TX 79607 DSN 461-2318.	Same as Originating Activity	Continuous	133
SR267	7 WG, Dyess AFB, TX 79607 DSN 461-2318.	Same as Originating Activity	Continuous	171
SR270	301 OG/SUA, NAS JRB Fort Worth, TX DSN 739-6903/6904/6905, C817-782-6903/6904/69	Same as Originating Activity	0700–2200 local	182
SR273	7 WG, Dyess AFB, TX 79607 DSN 461-2318.	Same as Originating Activity	Continuous	156
SR274	71 FTW/OSOP, Vance AFB, OK 73705-5202 DSN 448-7850, C580-213-7850.	32 FTS/DOOT, Vance AFB, OK 73705-5202 DSN 448-6251, C580-213-6251.	Sunrise–Sunset Daily	169
SR275	71 FTW/OSOP, Vance AFB, OK 73705-5202 DSN 448-7850, C580-213-7850.	32 FTS/DOOT, Vance AFB, OK 73705-5202 DSN 448-6251, C580-213-6251.	Sunrise–Sunset Daily	169
SR276	47 OSS/OSOR, 570 2nd St., Ste 6, Laughlin AFB, TX 78843-5222 DSN 732-5864, C830-	86 FTS/DOS, 80 Rio Lobo Ln, Laughlin AFB, TX 78843 DSN 732-5584, C830-298-5584.	Sunrise–Sunset daily	185
SR277	47 OSS/OSOR, 570 2nd St., Ste. 6, Laughlin AFB, TX 78843-5222 DSN 732-5864, C830	86 FTS/DOS, 80 Rio Lobo Ln, Laughlin AFB, TX 78843 DSN 732-5584, C830-298-5584.	Sunrise–Sunset Daily	183
SR280	7 WG, Dyess AFB, TX 79607 DSN 461-2318.	Same as Originating Activity	Continuous	47
SR281	47 OSS/OSOR, 570 2nd St., Ste 6, Laughlin AFB, TX 78843-5222 DSN 732-5864/5337,	85 FTS/DOS, 570 2nd St., Laughlin AFB, TX 78843-5220 DSN 732-5121/5429, C830-298	Sunrise–Sunset Daily	683
SR282	47 OSS/OSOR, 570 2nd St., Ste. 6, Laughlin AFB, TX 78843-5222 DSN 732-5864/5337,	85 FTS/DOS, 570 2nd St., Laughlin AFB, TX 78843-5220 DSN 732-5121/5429, C830-298	Sunrise–Sunset Daily	667
SR283	47 OSS/OSOR, 570 2nd St., Ste 6, Laughlin AFB, TX 78843-5222 DSN 732-5864, C830-	85 FTS/DOS, 570 2nd St., Laughlin AFB, TX 78843-5220 DSN 732-5121, C830-298-5121	Sunrise–Sunset Daily	133
SR284	47 OSS/OSOR, 570 2nd St., Ste. 6, Laughlin AFB, TX 78843-5222 DSN 732-5864, C830	85 FTS/DOS, 570 2nd St., Laughlin AFB, TX 78843-5220 DSN 732-5121, C830-298-5121	Sunrise–Sunset Daily	133
SR286	12 OSS/OSOA, Randolph AFB, TX 78150-5000 DSN 487-5580, C210-652-5580.	559 FTS, Randolph AFB, TX 78150 DSN 487-5661, C210-652-5661.	Sunrise–Sunset Daily, except holidays	115

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** *Length calculations were performed using an the appropriate Universal Transverse Mercator zones.*

Source: Department of Defense based on data from the National Geospatial-Intelligence Agency (Digital Aeronautical Flight Information File, (effective: January 18, 2008 through Feburary 13, 2008).

Military Training Route Inventory

Military Training Route	Originating Agency*	Scheduling Agency*	Effective Times	Length (NM)**
SR287	12 OSS/OSOA, Randolph AFB, TX 78150-5000 DSN 487-5580, C210-652-5580.	559 FTS, Randolph AFB, TX 78150 DSN 487-5661, C210-652-5661.	Sunrise–Sunset Daily, except holidays	118
SR290	12 OSS/OSOA, Randolph AFB, TX 78150-5000 DSN 487-5580, C210-652-5580.	559 FTS, Randolph AFB, TX 78150 DSN 487-5661, C210-652-5661.	Sunrise–Sunset Daily, except holidays	120
SR292	12 OSS/OSOA, Randolph AFB, TX 78150-5000 DSN 487-5580, C210-652-5580.	559 FTS, Randolph AFB, TX 78150 DSN 487-5661, C210-652-5661.	Sunrise–Sunset Daily except holidays	114
SR293	12 OSS/OSOA, Randolph AFB, TX 78150-5000 DSN 487-5580, C210-652-5580.	559 FTS, Randolph AFB, TX 78150 DSN 487-5661, C210-652-5661.	Sunrise–Sunset daily	109
SR294	71 FTW/OSOP, Vance AFB, OK 73705-5202 DSN 448-7850 C580-213-7850.	8 FTS/DOO, Vance AFB, OK 73705-5202 DSN 448-6037 C580-213-6037.	Sunrise–Sunset	198
SR295	71 FTW/OSOP, Vance AFB, OK 73705-5202 DSN 448-7850 C580-213-7850.	8 FTS/DOO, Vance AFB, OK 73705-5202 DSN 448-6037 C580-213-6037.	Sunrise–Sunset	194
SR296	71 FTW/OSOP, Vance AFB, OK 73705-5202 DSN 448-7850 C580-213-7850.	8 FTS/DOO, Vance AFB, OK 73705-5202 DSN 448-6037 C580-213-6037.	Sunrise–Sunset	179
SR300	60 OSS/OSO, 611 E. St., Travis AFB, CA 94535 DSN 837-1075, C707-424-1075.	60 OSS/OSO, 611 E. St., Travis AFB, CA 94535 DSN 837-5582, C707-424-5582.	Continuous	763
SR301	60 OSS/OSO, 611 E. St., Travis AFB, CA 94535 DSN 837-1075, C707-424-1075.	60 OSS/OSO, 611 E. St., Travis AFB, CA 94535 DSN 837-5582, C707-424-5582.	Continuous	763
SR311	129 RQW/DOW, PO Box 103, Stop 14, Moffett Federal Afld, CA 94035-5000 DSN 359-93	Same as Originating Activity	Continuous	145
SR353	129 RQW/DOW, PO Box 103, Stop 14, Moffett Federal Afld, CA 94035-5000 DSN 359-93	Same as Originating Activity	Continuous	110
SR359	129 RQW/DOW, PO Box 103, Stop 14, Moffett Federal Afld, CA 94035-5000 DSN 359-93	Same as Originating Activity	Continuous	145
SR381	129 RQW/DOW, PO Box 103, Stop 14, Moffett Federal Afld, CA 94035-5000 DSN 359-93	Same as Originating Activity	Continuous	142
SR390	146 AW/DOXT (ANG), 106 Mulcahey Dr., Port Hueneme, CA 93041-4003 DSN 893-7590/75	Same as Originating Activity	Continuous	97
SR397	146 AW/DOXT (ANG), 106 Mulcahey Dr., Port Hueneme, CA 93041-4003 DSN 893-7590/75	Same as Originating Activity	Continuous	114
SR398	129 RQW/DOW, PO Box 103, Stop 14, Moffett Federal Afld, CA 94035-5000 DSN 359-93	Same as Originating Activity	Continuous	43
SR488	62 OSS/OSO, McChord AFB, WA 98438-1109 DSN 382-9925, C253-982-9925. During non-d	Same as Originating Activity	Continuous	30
SR489	62 OSS/OSO, McChord AFB, WA 98438-1109 DSN 382-9925, C253-982-9925. During non-d	Same as Originating Activity	Continuous	23
SR616	139 Airlift Wg., 705 Memorial Drive, St. Joseph, MO 64503-9307 DSN 356-3225/3470	Same as Originating Activity	1300–0500Z++ daily	148
SR617	139 Airlift Wg., 705 Memorial Drive, St. Joseph, MO 64503-9307 DSN 356-3225/3470	Same as Originating Activity	1300–0500Z++ daily	147
SR618	139 Airlift Wg., 705 Memorial Drive, St. Joseph, MO 64503-9307 DSN 356-3225/3470	Same as Originating Activity	1300–0500Z++ daily	129
SR619	139 Airlift Wg., 705 Memorial Drive, St. Joseph, MO 64503-9307 DSN 356-3225/3470	Same as Originating Activity	1300–0500Z++ daily	137
SR701	191 AG, Selfridge ANGB, MI 48045 DSN 273-4498/4441, C810-463-3664.	Same as Originating Activity	1600–0400Z++ Tue–Sat, 1600–2200Z++ Sun	177
SR702	191 AG, Selfridge ANGB, MI 48045 DSN 273-4498/4441, C810-463-3664.	Same as Originating Activity	1600–0400Z++ Tue–Sat, 1600–2200Z++ Sun	166

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** *Length calculations were performed using an the appropriate Universal Transverse Mercator zones.*

Source: Department of Defense based on data from the National Geospatial-Intelligence Agency (Digital Aeronautical Flight Information File, (effective: January 18, 2008 through Feburary 13, 2008).

Military Training Route Inventory

Military Training Route	Originating Agency*	Scheduling Agency*	Effective Times	Length (NM)**
SR703	191 AG, Selfridge ANGB, MI 48045 DSN 273-4498/4441, C810-463-3664.	Same as Originating Activity	1600–0400Z++ Tue–Sat, 1600–2200Z++ Sun	75
SR707	179 AW, Mansfield Lahm Airport, OH 44903-0179 DSN 696-6165.	Same as Originating Activity	0700–2300 local daily	142
SR708	179 AW, Mansfield Lahm Airport, OH 44903-0179 DSN 696-6165.	Same as Originating Activity	0700–2300 local daily	164
SR709	179 AW, Mansfield Lahm Airport, OH 44903-0179 DSN 696-6165.	Same as Originating Activity	0700–2300 local daily	105
SR710	179 AW, Mansfield Lahm Airport, OH 44903-0179 DSN 696-6165.	Same as Originating Activity	0700–2300 local daily	111
SR711	179 AW, Mansfield Lahm Airport, OH 44903-0179 DSN 696-6165.	Same as Originating Activity	0700–2300 local daily	115
SR712	179 AW, Mansfield Lahm Airport, OH 44903-0179 DSN 696-6165.	Same as Originating Activity	0700–2300 local daily	140
SR713	179 AW, Mansfield Lahm Airport, OH 44903-0179 DSN 696-6165.	Same as Originating Activity	0700–2300 local daily	117
SR714	179 AW, Mansfield Lahm Airport, OH 44903-0179 DSN 696-6165.	Same as Originating Activity	0700–2300 local daily	88
SR715	179 AW, Mansfield Lahm Airport, OH 44903-0179 DSN 696-6165.	Same as Originating Activity	0700–2300 local daily	148
SR727	133 TAW, Minneapolis-St. Paul Intl, MN 55111, DSN 825-5680.	Same as Originating Activity	1930–2230 lcl Tue and Thu; 1000–1500 Lcl third Sat each month; OT by NOTAM	200
SR728	133 TAW, Minneapolis-St. Paul Intl, MN 55111, DSN 825-5680.	Same as Originating Activity	1930–2230 lcl Tue and Thu; 1000–1500 lcl third Sat each month; OT by NOTAM	179
SR729	133 TAW, Minneapolis-St. Paul Intl, MN 55111, DSN 825-5680.	Same as Originating Activity	1930–2230 lcl Tue and Thu; 1000–1500 lcl third Sat each month; OT by NOTAM	142
SR730	133 TAW, Minneapolis-St. Paul Intl, MN 55111, DSN 825-5680.	Same as Originating Activity	1930–2230 lcl Tue and Thu; 1000–1500 lcl third Sat each month; OT by NOTAM	136
SR731	133 TAW, Minneapolis-St. Paul Intl, MN 55111, DSN 825-5680.	Same as Originating Activity	1930–2230 lcl Tue and Thu; 1000–1500 lcl third Sat each month; OT by NOTAM	88
SR771	440 AW/DOO, General Mitchell IAP, Milwaukee, WI 53207, DSN 741-5155/5157, FAX DS	Same as Originating Activity	2200–0330Z++ Tue–Fri; 1500–2200Z++ Sat–Sun	255

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** *Length calculations were performed using an the appropriate Universal Transverse Mercator zones.*

Source: Department of Defense based on data from the National Geospatial-Intelligence Agency (Digital Aeronautical Flight Information File, (effective: January 18, 2008 through Feburary 13, 2008).

Military Training Route Inventory

Military Training Route	Originating Agency*	Scheduling Agency*	Effective Times	Length (NM)**
SR776	440 AW/DOO, General Mitchell IAP, Milwaukee, WI 53207, DSN 741-5155/5157, FAX DS	Same as Originating Activity	2000–0400Z++ Tue–Fri; 1600–2200Z++ Sat–Sun	159
SR781	Alpena CRTC/OTM (ANG), 5884 A Street, Alpena MI 49707-8125 DSN 741-3509/3226.	Same as Originating Activity	0700–2300 local daily	119
SR782	Alpena CRTC/OTM (ANG), 5884 A Street, Alpena MI 49707-8125 DSN 741-3509/3226.	Same as Originating Activity	0700–2300 local daily	152
SR785	440 AW/DOO, General Mitchell IAP, Milwaukee, WI 53207, DSN 741-5155/5157, FAX DS	Same as Originating Activity	2000–0400Z++ Tue–Fri; 1600–2200Z++ Sat–Sun	141
SR800	166 OSF/OSK, 2805 Spruance Drive, New Castle 19720-1615 DSN 445-7554 C302-323-35	Same as Originating Activity	0800–2300 local	156
SR801	166 OSF/OSK, 2805 Spruance Drive, New Castle 19720-1615 DSN 445-7554 C302-323-35	Same as Originating Activity	0800–2300 local	208
SR802	167 AW, Eastern West Virginia Regional, Martinsburg, WV 25401 DSN 242-5250.	Same as Originating Activity	Continuous	81
SR803	167 AW, Eastern West Virginia Regional, Martinsburg, WV 25401 DSN 242-5250.	Same as Originating Activity	Continuous	87
SR804	167 AW, Eastern West Virginia Regional, Martinsburg, WV 25401 DSN 242-5250.	Same as Originating Activity	Continuous	95
SR805	166 OSF/OSK, 2805 Spruance Drive, New Castle 19720-1615 DSN 445-7554 C302-323-35	Same as Originating Activity	0800–2300 local	156
SR806	167 AW, Eastern West Virginia Regional, Martinsburg, WV 25401 DSN 242-5250.	Same as Originating Activity	Continuous	122
SR807	167 AW, Eastern West Virginia Regional, Martinsburg, WV 25401 DSN 242-5250.	Same as Originating Activity	Continuous	141
SR808	167 AW, Eastern West Virginia Regional, Martinsburg, WV 25401 DSN 242-5250.	Same as Originating Activity	Continuous	171
SR820	166 OSF/OSK, 2805 Spruance Drive, New Castle 19720-1615 DSN 445-7554 C302-323-35	Same as Originating Activity	0900–2300 local daily	141
SR821	166 OSF/OSK, 2805 Spruance Drive, New Castle 19720-1615 DSN 445-7554 C302-323-35	Same as Originating Activity	0900–2300 local daily	129
SR822	911 AW, Pittsburgh Intl, PA DSN 277-8722/8761.	Same as Originating Activity	1000–0300Z Mon–Sat	126
SR823	914 AW/328 AS,10460 Wagner Dr, Niagra Falls Intl Airport, NY 14304-5010, DSN 238	Same as Originating Activity	1500–0300Z++	183
SR825	914 AW/328 AS,10460 Wagner Dr, Niagra Falls Intl Airport, NY 14304-5010, DSN 238	Same as Originating Activity	1500–0300Z++	181
SR835	166 OSF/OSK, 2805 Spruance Drive, New Castle 19720-1615 DSN 445-7554 C302-323-35	Same as Originating Activity	0900–2300 local	132
SR844	166 Airlift Gp, 166 OSF/DOW, 2600 Spruance Dr, Corporate Commons, New Castle, DE	Same as Originating Activity	0800–2359 local	154
SR845	166 Airlift Gp, 166 OSF/DOW, 2600 Spruance Dr, Corporate Commons, New Castle, DE	Same as Originating Activity	0800–2359 local	200
SR846	166 Airlift Gp, 166 OSF/DOW, 2600 Spruance Dr, Corporate Commons, New Castle, DE	Same as Originating Activity	0800–2359 local	112
SR847	166 Airlift Gp, 166 OSF/DOW, 2600 Spruance Dr, Corporate Commons, New Castle, DE	Same as Originating Activity	0800–2359 local	67
SR867	Commander, Ft Pickett, VA 23824-5000 DSN 438-8506, C804-292-8506.	Same as Originating Activity	Continuous	196
SR871	130 AG (ANG), Kanawha County, Charleston, WV 25311 DSN 366-6291.	Same as Originating Activity	0800–2300 local	150
SR872	130 AG (ANG), Kanawha County, Charleston, WV 25311 DSN 366-6291.	Same as Originating Activity	0800–2300 Local	157

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** *Length calculations were performed using an the appropriate Universal Transverse Mercator zones.*

Source: Department of Defense based on data from the National Geospatial-Intelligence Agency (Digital Aeronautical Flight Information File, (effective: January 18, 2008 through Feburary 13, 2008).

Military Training Route Inventory

Military Training Route	Originating Agency*	Scheduling Agency*	Effective Times	Length (NM)**
SR873	130 AG (ANG), Kanawha County, Charleston, WV 25311 DSN 366-6291.	Same as Originating Activity	0800–2300 local	155
SR874	130 AG (ANG), Kanawha County, Charleston, WV 25311 DSN 366-6291.	Same as Originating Activity	0800–2300 local	130
SR900	143 AW/Operations, 7 Flightline Dr, North Kingstown, RI 02852-7548 DSN 476-3405,	Same as Originating Activity	1200–0400Z++ Daily	153
SR901	143 AW/Operations, 7 Flightline Dr, North Kingstown, RI 02852-7548 DSN 476-3405,	Same as Originating Activity	1200–0400Z++ Daily	98
SR902	143 AW/Operations, 7 Flightline Dr, North Kingstown, RI 02852-7548 DSN 476-3405,	Same as Originating Activity	1200–0400Z++ Daily	160
SR904	143 AW/Operations, 7 Flightline Dr, North Kingstown, RI 02852-7548 DSN 476-3405,	Same as Originating Activity	1000–2200 local	184
SR905	143 AW/Operations, 7 Flightline Dr, North Kingstown, RI 02852-7548 DSN 476-3405,	Same as Originating Activity	1000–2200 local	97
VR025	GA ANG/CRTC/OTR Townsend Range P.O. BOX 220, GA 31331 DSN 860-3303 C912-963-3303	GA ANG/CRTC/OTR Townsend Range P.O. BOX 220, GA 31331 DSN 860-3007 C912-963-3007	0700–2200 LCL, other times by NOTAM	55
VR041	4 OSS/OSOR, Seymour Johnson AFB, NC 27531-5004 DSN 722-2672, C919-722-2672.	4 OSS/OSOS, Seymour Johnson AFB, NC 27531-5004 DSN 722-2129/2124, C919-722-2129/	Continuous	424
VR042	4 OSS/OSOR, Seymour Johnson AFB, NC 27531-5004 DSN 722-2672, C919-722-2672.	4 OSS/OSOS, Seymour Johnson AFB, NC 27531-5004 DSN 722-2129/2124, C919-722-2129/	Continuous	504
VR043	4 OSS/OSOR, Seymour Johnson AFB, NC 27531-5004 DSN 722-2672, C919-722-2672.	4 OSS/OSOS, Seymour Johnson AFB, NC 27531-5004 DSN 722-2129/2124, C919-722-2129/	Continuous	370
VR045	GA ANG/CRTC/OTR Townsend Range, P.O.BOX 220, Townsend, GA 31331, DSN 860-3007 C9	GA ANG/CRTC/OTR Townsend Range, P.O.BOX 220, Townsend, GA 31331, DSN 860-3303 C9	0700–2200 LCL, Mon–Fri, other time by NOTAM	55
VR054	4 OSS/OSR, Seymour Johnson AFB, NC 27531-5004 DSN 722-2672, C919-722-2672.	4 OSS/OSOSF, Seymour Johnson AFB, NC 27531-5004 DSN 722-2129/2124, C919-722-2129	0700–2100 local Mon–Fri, OT by NOTAM	34
VR058	20 OSS/OSTA, Shaw AFB, SC 29152 DSN 965-1121/1122, C803-895-1121/1122, Fax DSN 9	20 OSS/OSOS, Shaw AFB, SC 29152 DSN 965-1118/1119, C803-895-1118/1119. Non-duty	Continuous (Jan, Mar, May, Jul, Sep, Nov) VR–092 reverse direction other months	199
VR060	187 FW, 5187 Selma Highway , Montgomery, AL 36108-4824 DSN 358-9255, C334-394-72	Same as Originating Activity	0700–1700 Local or by NOTAM	123
VR071	4 OSS/OSR, Seymour Johnson AFB, NC 27531-5004 DSN 722-2672, C919-722-2672.	4 OSS/OSOSF, Seymour Johnson AFB, NC 27531-5004 DSN 722-2129/2124, C919-722-2129	0700–2100 local Mon–Fri, OT by NOTAM	29
VR073	4 OSS/OSR, Seymour Johnson AFB, NC 27531-5004 DSN 722-2672, C919-722-2672.	4 OSS/OSOSF, Seymour Johnson AFB, NC 27531-5004 DSN 722-2129/2124, C919-722-2129	Continuous	222
VR083	4 OSS/OSE, Seymour Johnson AFB, NC 27531 DSN 722-2672, C919-722-2672	4 OSS/OSOSF, Seymour Johnson AFB, NC 27531-5004 DSN 722-2129/2124, C919-722-2129	Continuous	238
VR084	4 OSS/OSR, Seymour Johnson AFB, NC 27531-5004 DSN 722-2672, C919-722-2672.	4 OSS/OSOSF, Seymour Johnson AFB, NC 27531-5004 DSN 722-2129/2124, C919-722-2129	Continuous	204
VR085	4 OSS/OSR, Seymour Johnson AFB, NC 27531 DSN 722-2672, C919-722-2672.	4 OSS/OSOSF, Seymour Johnson AFB, NC 27531-5004 DSN 722-2129/2124, C919-722-2129	Continuous	168
VR086	4 OSS/OSR, Seymour Johnson AFB, NC 27531 DSN 722-2672, C919-722-2672.	4 OSS/OSOSF, Seymour Johnson AFB, NC 27531-5004 DSN 722-2129/2124, C919-722-2129	Continuous	203
VR087	20 OSS/OSTA, Shaw AFB, SC 29152 DSN 965-1121/1122, C803-895-1121/1122, Fax DSN 9	20 OSS/OSOS, Shaw AFB, SC 29152 Duty hrs DSN 965-1118/1119, C803-895-1118/1119.	Continuous	185

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** *Length calculations were performed using an the appropriate Universal Transverse Mercator zones.*

Source: Department of Defense based on data from the National Geospatial-Intelligence Agency (Digital Aeronautical Flight Information File, (effective: January 18, 2008 through Feburary 13, 2008).

Military Training Route Inventory

Military Training Route	Originating Agency*	Scheduling Agency*	Effective Times	Length (NM)**
VR088	20 OSS/OSTA, Shaw AFB, SC 29152 DSN 965-1121/1122, C803-895-1121/1122, Fax DSN 9	20 OSS/OSOS, Shaw AFB, SC 29152 Duty hrs DSN 965-1118/1119, C803-895-1118/1119.	Continuous	164
VR092	20 OSS/OSTA, Shaw AFB, SC 29152 DSN 965-1121/1122, C803-895-1121/1122, Fax DSN 9	20 OSS/OSOS, Shaw AFB, SC 29152 Duty hrs DSN 965-1118/1119, C803-895-1118/1119.	Continuous (Feb, Apr, Jun, Aug, Oct, Dec) VR–058 opposite direction other months	199
VR093	20 OSS/OSTA, Shaw AFB, SC 29152 DSN 965-1121/1122, C803-895-1121/1122, Fax DSN 9	20 OSS/OSOS, Shaw AFB, SC 29152 Duty hrs DSN 965-1118/1119, C803-895-1118/1119.	Continuous	210
VR094	1st Aviation Group (GA ARNG), Dobbins ARB, GA 30069, DSN 753-3609, C678-569-3609	1st Aviation Group (GA ARNG), Dobbins ARB, GA 30069, DSN 753-3602/3611, C678-569	Continuous	152
VR095	1st Aviation Group (GA ARNG), Dobbins ARB, GA 30069 DSN 753-3609, C678-569-3609,	1st Aviation Group (GA ARNG), Dobbins ARB, GA 30069 DSN 753-3602/3611 C678-569-3	Continuous	267
VR096	4 OSS/OSR, Seymour Johnson AFB, NC 27531 DSN 722-2672, C919-722-2672.	4 OSS/OSOSF, Seymour Johnson AFB, NC 27531-5004 DSN 722-2129/2124, C919-722-2129	Continuous	145
VR097	20 OSS/OSTA, Shaw AFB, SC 29152 DSN 965-1121/1122, C803-895-1121/1122, Fax DSN 9	20 OSS/OSOS, Shaw AFB, SC 29152, Duty hrs DSN 965-1118/1119, C803-895-1118/1119.	0600–2400 local daily	341
VR100	27 OSS/OSOH, 110 E Sextant Ave, Suite 1081, Cannon AFB, NM 88103 DSN 681-2279.	27 OSS/OSOS, 110 E Sextant Ave, Suite 1080, Cannon AFB, NM 88103 DSN 681-2276.	Continuous	318
VR1001	FACSFACJAX, P.O. Box 40, NAS Jacksonville, FL 32212-0040 DSN 942-2004/2005, C904	Same as Originating Activity	Continuous	389
VR1002	FACSFACJAX, P.O. Box 40, NAS Jacksonville, FL 32212-0040 DSN 942-2004/2005, C904	Same as Originating Activity	Continuous	434
VR1003	FACSFACJAX, P.O. Box 40, NAS Jacksonville, FL 32212-0040 DSN 942-2004/2005, C904	Same as Originating Activity	Continuous	488
VR1004	FACSFACJAX, P.O. Box 40, NAS Jacksonville, FL 32212-0040 DSN 942-2004/2005, C904	Same as Originating Activity	Continuous	570
VR1005	FACSFACJAX, P.O. Box 40, NAS Jacksonville, FL 32212-0040 DSN 942-2004/2005, C904	Same as Originating Activity	Continuous	280
VR1006	FACSFACJAX, P.O. Box 40, NAS Jacksonville, FL 32212-0040 DSN 942-2004/2005, C904	Same as Originating Activity	Continuous	682
VR1007	FACSFACJAX, P.O. Box 40, NAS Jacksonville, FL 32212-0040 DSN 942-2004/2005, C904	Same as Originating Activity	Continuous	173
VR1008	FACSFACJAX, P.O. Box 40, NAS Jacksonville, FL 32212-0040 DSN 942-2004/2005, C904	Same as Originating Activity	Continuous	74
VR1009	FACSFACJAX, P.O. Box 40, NAS Jacksonville, FL 32212-0040 DSN 942-2004/2005, C904	Same as Originating Activity	Continuous	76
VR101	301 OG/SUA, NAS JRB, Fort Worth, TX 76127 DSN 739-6903/04/05, C817-782-6903/04/0	Same as Originating Activity	0700–2200 local	72
VR1010	FACSFACJAX, P.O. Box 40, NAS Jacksonville, FL 32212-0040 DSN 942-2004/2005, C904	Same as Originating Activity	Continuous	26
VR1013	FACSFACJAX, P.O. Box 40, NAS Jacksonville, FL 32212-0040 DSN 942-2004/2005, C904	Same as Originating Activity	Continuous	62
VR1014	14 OSS/OSOP, Columbus AFB, MS 39710-5000 DSN 742-7560/7633, C662-434-7560/7633.	37/41 FTS, Columbus AFB, MS 39710-5000 DSN 742-7666/7667, C662-434-7666/7667.	Sunrise–Sunset Daily	177
VR1016	14 OSS/OSOP Columbus AFB, MS 39710 DSN 742-7560/7633 C662-434-7560/7633	48 FTS Columbus AFB, MS 39710 DSN 742-7840/7847 C662-434-7840/7847	Sunrise–Sunset Daily	395
VR1017	187 FW, 5187 Selma Highway, Montgomery, AL 36108-4824 DSN 358-9255, C334-394-725	Same as Originating Activity	0700–1730 local, OT by NOTAM	175
VR1020	FACSFAC, Pensacola, FL 32508-5217 DSN 922-2735, C850-452-2735.	Same as Originating Activity	1200–0400Z++ weekdays, occasional weekends	147

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Source: Department of Defense based on data from the National Geospatial-Intelligence Agency (Digital Aeronautical Flight Information File, (effective: January 18, 2008 through Feburary 13, 2008).

Military Training Route Inventory

Military Training Route	Originating Agency*	Scheduling Agency*	Effective Times	Length (NM)**
VR1021	FACSFAC, Pensacola, FL 32508-5217 DSN 922-2735, C850-452-2735.	Same as Originating Activity	1200–0400Z++ weekdays, occasional weekends	418
VR1022	FACSFAC, Pensacola, FL 32508-5217 DSN 922-2735, C850-452-2735.	Same as Originating Activity	1200–0400Z++ weekdays, occasional weekends	173
VR1023	FACSFAC, Pensacola, FL 32508-5217 DSN 922-2735, C850-452-2735.	Same as Originating Activity	1200–0400Z++ weekdays, occasional weekends	300
VR1024	FACSFAC, Pensacola, FL 32508-5217 DSN 922-2735, C850-452-2735.	Same as Originating Activity	1200–0400Z++ weekdays, occasional weekends	297
VR1030	COMTRAWING ONE, NAS MERIDIAN, MS 39309-0136 DSN 637-2487, C601-679-2487.	Same as Originating Activity	1100–0600Z++ daily	255
VR1031	COMTRAWING ONE, NAS MERIDIAN, MS 39309-0136 DSN 637-2487, C601-679-2487.	Same as Originating Activity	1100–0600Z++ daily	342
VR1032	COMTRAWING ONE, NAS MERIDIAN, MS 39309 DSN 637-2854, C601-679-2854.	Same as Originating Activity	1100–0600Z++ daily	211
VR1033	COMTRAWING ONE, NAS MERIDIAN, MS 39309 DSN 637-2854, C601-679-2854.	Same as Originating Activity	1100–0600Z++ daily	323
VR1039	FACSFACJAX, P.O. Box 40, NAS Jacksonville, FL 32212-0040 DSN 942-2004/2005, C904	Same as Originating Activity	Continuous	8
VR104	301 OG/SUA, NAS JRB, Fort Worth, TX 76127 DSN 739-6903/04/05, C817-782-6903/04/0	Same as Originating Activity	0700–2200 local	220
VR1040	CG MCAS CHERRY POINT, ATTN RAC-DIROPS, Cherry Point, NC 28533 DSN 582-3466, C252	Central Scheduling Division MCAS Cherry Point, NC 28533 DSN 582-4040/4041, C252-	Continuous	421
VR1041	CG MCAS CHERRY POINT, ATTN RAC-DIROPS, Cherry Point, NC 28533 DSN 582-3466, C252	Central Scheduling Division MCAS Cherry Point, NC 28533 DSN 582-4040/4041, C252-	Continuous	384
VR1043	CG MCAS CHERRY POINT, ATTN RAC-DIROPS, Cherry Point, NC 28533 DSN 582-3466, C252	Central Scheduling Division MCAS Cherry Point, NC 28533 DSN 582-4040/4041, C252-	0700–2300 Local Daily	456
VR1046	CG MCAS CHERRY POINT, ATTN RAC-DIROPS, Cherry Point, NC 28533 DSN 582-3466, C252	Central Scheduling Division MCAS Cherry Point, NC 28533 DSN 582-4040/4041, C252-	0600–1800 Local Mon–Fri	243
VR1050	14 OSS/OSOP, Columbus AFB, MS 39710-5000 DSN 742-7560/7633, C662-434-7560/7633.	48 FTS, Columbus AFB, MS 39710-5000 DSN 742-7840/7847, C662-434-7840/7847.	0700–2300 local daily	359
VR1051	14 OSS/OSOP, Columbus AFB, MS 39710-5000 DSN 742-7560/7633, C662-434-7560/7633.	48 FTS, Columbus AFB, MS 39710-5000 DSN 742-7840/7847, C662-434-7840/7847.	0700–2300 local daily	440
VR1052	FACSFAC, Pensacola, FL 32508-5217 DSN 922-2735, C850-452-2735.	Same as Originating Activity	1200–0500Z++	358
VR1054	FACSFAC, Pensacola, FL 32508-5217 DSN 922-2735, C850-452-2735.	Same as Originating Activity	1300–0500Z++ daily	293
VR1055	FACSFAC, Pensacola, FL 32508-5217 DSN 922-2735, C850-452-2735.	Same as Originating Activity	1300–0500Z++ 7 days a week	299
VR1056	FACSFAC, Pensacola, FL 32508-5217 DSN 922-2735, C850-452-2735.	Same as Originating Activity	1200–0500Z++	358
VR1059	20 OSS/OSTA, Shaw AFB, SC 29152 DSN 965-1121/1122, C803-895-1121/1122, Fax DSN 9	20 OSS/OSOS, Shaw AFB, SC 29152 Duty hrs DSN 965-1118/1119, C803-895-1118/1119.	Continuous	312
VR106	97 OSS/DOA, 400 N Sixth St., Altus AFB, OK 73521 DSN 866-6098, C580-481-6098.	97 OSS/OSK, 400 N Sixth St. Suite 12, Altus AFB, OK 73521 DSN 866-7110.	0830–0230 local Mon–Fri	142
VR1061	4 OSS/OSR, Seymour Johnson AFB, NC 27531 DSN 722-2672, C919-722-2672.	4 OSS/OSOSF, Seymour Johnson AFB, NC 27531-5004 DSN 722-2129/2124, C919-722-2129	Continuous	150

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** *Length calculations were performed using an the appropriate Universal Transverse Mercator zones.*

Source: Department of Defense based on data from the National Geospatial-Intelligence Agency (Digital Aeronautical Flight Information File, (effective: January 18, 2008 through Feburary 13, 2008).

Military Training Route Inventory

Military Training Route	Originating Agency*	Scheduling Agency*	Effective Times	Length (NM)**
VR1065	347 OSS/OSOS, Moody AFB, GA 31699-1899 DSN 460-4544/3531, C229-257-4544/3531.	347 OSS/OSOS, Moody AFB, GA 31699-1899 DSN 460-4544/3531 C229-257-4544/3531. Mon	0700–2400L daily	163
VR1066	347 OSS/OSKA, Moody AFB, GA 31699-1899 DSN 460-4131, C229-257-4131.	347 OSS/OSOS, Moody AFB, GA 31699-1899 DSN 460-4544/3531, C229-257-4544/3531. Mon	0700–0000 local daily	207
VR1070	187 FW, 5187 Selma Highway, Montgomery, AL 36108-4824 DSN 358-9255 C334-394-7255	Same as Originating Activity	0700–2000 local, OT by NOTAM	99
VR1072	14 OSS/OSOP, Columbus AFB, MS 39710-5000 DSN 742-7560/7633, C662-434-7560/7633.	48 FTS, Columbus AFB, MS 39710-5000 DSN 742-7840/7847, C662-434-7840/7847.	Normally SR–2100 local, use OT not prohibited	240
VR1076	156 AW (PRANG) Muniz ANGB, 200 Jose A. (Tony) Santana Ave., Carolina, Puerto Ric	Same as Originating Activity	1100–0000Z++ (DAILY)	117
VR1077	156 AW (PRANG) Muniz ANGB, 200 Jose A. (Tony) Santana Ave., Carolina, Puerto Ric	Same as Originating Activity	1100–0000Z++ (DAILY)	197
VR1078	156 AW (PRANG) Muniz ANGB, 200 Jose A. (Tony) Santana Ave., Carolina, Puerto Ric	Same as Originating Activity	1100–0000Z++ (DAILY)	245
VR1079	156 AW (PRANG) Muniz ANGB, 200 Jose A. (Tony) Santana Ave., Carolina, Puerto Ric	Same as Originating Activity	1100–0000Z++(DAILY)	209
VR108	27 OSS/OSOH, 110 E Sextant Ave, Suite 1081 Cannon AFB, NM 88103 DSN 681-2279.	27 OSS/OSOS, 110 E Sextant Ave, Suite 1080 Cannon AFB, NM 88103 DSN 681-2276.	Continuous	236
VR1080	156 AW (PRANG) Muniz ANGB, 200 Jose A. (Tony) Santana Ave., Carolina, Puerto Ric	Same as Originating Activity	1100–0000Z++ (DAILY)	117
VR1081	156 AW (PRANG) Muniz ANGB, 200 Jose A. (Tony) Santana Ave., Carolina, Puerto Ric	Same as Originating Activity	1100–0000Z++ (DAILY)	177
VR1082	46 OSS/OSCM, 505 North Barrancas Ave, Suite 104, Eglin AFB, FL 32542-6818 DSN 87	46 OSS/OSCS, 505 North Barrancas Ave, Suite 104, Eglin AFB, FL 32542-6818 DSN 87	Normally 1200–2300Z++ Mon–Fri, available OT	189
VR1083	USAFAWC-79 Test and Evaluation Group/CD, Eglin AFB, FL 32542 DSN 872-2024, C904-	85 Test and Evaluation Squadron/DOOS, Eglin AFB, FL 32542 DSN 872-2622, C904-882	Normally 1200–2300Z++ Mon–Fri, route usage is allowable OT	209
VR1084	USAFAWC-79 Test and Evaluation Group/CD, Eglin AFB, FL 32542 DSN 872-2024, C904-	85 Test and Evaluation Squadron/DOOS, Eglin AFB, FL 32542 DSN 872-2622, C904-882	Normally 1200–2300Z++ Mon–Fri, route usage is allowable OT	101
VR1085	46 OSS/OSCM, 505 North Barrancas Ave, Suite 104, Eglin AFB, FL 32542-6818 DSN 87	46 OSS/OSCS (ROCC), 505 North Barrancas Ave, Suite 104, Eglin AFB, FL 32542-6818	Normally 1200–2300Z++ Mon–Fri, route usage is allowable OT	288
VR1087	347 Rescue Wing, Detachment 1/RO, 8707 North Golf Course St., MacDill AFB, FL 33	347 Rescue Wing, Detachment 1/ROA, 8707 North Golf Course St., MacDill AFB, FL 3	Normally 0900–2400Z++ daily, available OT	90
VR1088	347 Rescue Wing, Detachment 1/RO, 8707 North Golf Course St., MacDill AFB, FL 33	347 Rescue Wing, Detachment 1/ROA, 8707 North Golf Course St., MacDill AFB, FL 3	Normally 0900–2400Z++ daily, available OT	83
VR1089	347 Rescue Wing, Detachment 1/RO, 8707 North Golf Course St., MacDill AFB, FL 33	347 Rescue Wing, Detachment 1/ROA, 8707 North Golf Course St., MacDill AFB, FL 3	Normally 0900–2400Z++ daily, available OT	107
VR1097	347 WG, Detachment 1/RO, 8707 North Golf Course St., MacDill AFB, FL 33621-5205	347 WG, Detachment 1/ROA, 8707 North Golf Course St., MacDill AFB, FL 33621-5205	Continuous	68
VR1098	347th Rescue WG, Detachment 1/RO, 8707 North Golf Course St., MacDill AFB, FL 33	347th Rescue WG, Detachment 1/ROA, 8707 North Golf Course St., MacDill AFB, FL 3	Continuous	167

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** *Length calculations were performed using an the appropriate Universal Transverse Mercator zones.*

Source: Department of Defense based on data from the National Geospatial-Intelligence Agency (Digital Aeronautical Flight Information File, (effective: January 18, 2008 through Feburary 13, 2008).

Military Training Route Inventory

Military Training Route	Originating Agency*	Scheduling Agency*	Effective Times	Length (NM)**
VR1102	188 FW, 4850 Leigh Ave., Fort Smith, AR 72903-6096 DSN 778-5502.	Same as Originating Activity. Route scheduled no more than 24 hr in advance. Min	Continuous (except Sunday 1000–1200 local)	83
VR1103	188 FW, 4850 Leigh Ave., Fort Smith, AR 72903-6096 DSN 778-5502.	Same as Originating Activity. Route scheduled no more than 24 hr in advance. Min	Continuous (except Sunday 1000–1200 local)	120
VR1104	188 FW, 4850 Leigh Ave., Fort Smith, AR 72903-6096 DSN 778-5502.	Same as Originating Activity. Route scheduled no more than 24 hr in advance. Min	Continuous (except Sunday 1000–1200 local)	110
VR1105	149 FTR GP (TX-ANG), Kelly AFB, TX 78241 DSN 945-5934, C210-925-5934.	Same as Originating Activity	0800–1830 local daily	93
VR1106	149 FTR GP (TX-ANG), Kelly AFB, TX 78241 DSN 969-5934.	Same as Originating Activity	0800–1830 local daily	93
VR1107	150 FW OG/CC, 2251 Air Guard Rd. SE, Kirtland AFB, NM 87117-5875 DSN 246-7426.	Same as Originating Activity	Sunrise–2200 local daily	244
VR1108	47 OSS/OSOR, 570 2nd St., Ste 6, Laughlin AFB, TX 78843-5222 DSN 732-5864, C830-	87 FTS/DOS, 570 2nd St., Laughlin AFB, TX 78843 DSN 732-5484, C830-298-5484. Sch	Sunrise–Sunset only	125
VR1109	47 OSS/OSOR, 570 2nd St., Ste. 6, Laughlin AFB, TX 78843-5222 DSN 732-5864, C830	87 FTS/DOS, 570 2nd St., Laughlin AFB, TX 78843 DSN 732-5484, C830-298-5484. Sch	Sunrise–Sunset Daily	114
VR1110	301 OG/SUA, NAS JRB, Fort Worth, TX 76127 DSN 739-6903/04/05, C817-782-6903/04/0	Same as Originating Activity	0600–2200 local daily	80
VR1113	188 FW, 4850 Leigh Ave., Fort Smith, AR 72903-6096 DSN 778-5502.	Same as Originating Activity. Route scheduled no more than 24 hr in advance. Min	Continuous (except Sunday 1000–1200 local)	188
VR1116	OC-ALC/10 FLTS, 4805 West Dr, Tinker AFB, OK 73145-3300 DSN 336-7719/7710, C405-	Same as Originating Activity	Daylight hours only	164
VR1117	47 OSS/OSOR, 570 2nd St., Ste. 6, Laughlin AFB, TX 78843-5222 DSN 732-5864, C830	87 FTS/DOS, 570 2nd St., Laughlin AFB, TX 78843 DSN 732-5484, C830-298-5484. Sch	Sunrise–Sunset Sat–Sun	114
VR1120	149 FW (TX ANG), 107 Hensley Street, Kelly AFB, TX 78241-5544 DSN 945-5934, C210	Same as Originating Activity	Sunrise–Sunset	128
VR1121	149 FW (TX ANG), 107 Hensley Street, Kelly AFB, TX 78241-5544 DSN 945-5934, C210	Same as Originating Activity	Sunrise–Sunset	128
VR1122	149 FW (TX ANG), 107 Hensley Street, Kelly AFB, TX 78241-5544 DSN 945-5934, C210	Same as Originating Activity	Sunrise–Sunset	193
VR1123	149 FW (TX ANG), 107 Hensley Street, Kelly AFB, TX 78241-5544 DSN 945-5934, C210	Same as Originating Activity	Sunrise–Sunset	193
VR1124	301 OG/SUA, NAS JRB, Fort Worth, TX 76127 DSN 739-6903/04/05, C817-782-6903/04/0	Same as Originating Activity	0600–2200 local daily	57
VR1128	301 OG/SUA, NAS JRB, Fort Worth, TX 76127 DSN 739-6903/04/05, C817-782-6903/04/0	Same as Originating Activity	0600–2200 local daily	206
VR1130	188 FW, 4850 Leigh Ave., Fort Smith, AR 72903-6096 DSN 778-5502.	Same as Originating Activity. Route scheduled no more than 24 hr in advance. Min	Continuous (except Sunday 1000–1200 local)	109
VR1137	301 OG/SUA, NAS JRB, Fort Worth, TX 76127 DSN 739-6903/04/05, C817-782-6903/04/0	Same as Originating Activity	0600–2200 local daily	193
VR1138	80th Flying Training Wing, 1911 J. Ave. Ste 6, Sheppard AFB, TX 76311-2056 DSN 7	90 FTS/DOTOD, Sheppard AFB, TX 76311 DSN 736-2675/4995, C940-676-2675/4995.	Sunrise–Sunset Mon–Fri, OT by NOTAM	193
VR1139	80th Flying Training Wing, 1911 J. Ave. Ste 6, Sheppard AFB, TX 76311-2056 DSN 7	90 FTS/DOTOD, Sheppard AFB,TX 76311 DSN 736-2675/4995, C940-676-2675/4995.	Sunrise–Sunset Mon–Fri, OT by NOTAM	210
VR114	27 OSS/OSOH, 110 E. Sextant Ave, Suite 1081, Cannon AFB, NM 88103 DSN 681-2279.	27 OSS/OSOS, 110 E. Sextant Ave, Suite 1080, Cannon AFB, NM 88103 DSN 681-2276.	Continuous	172

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** *Length calculations were performed using an the appropriate Universal Transverse Mercator zones.*

Source: Department of Defense based on data from the National Geospatial-Intelligence Agency (Digital Aeronautical Flight Information File, (effective: January 18, 2008 through Feburary 13, 2008).

Military Training Route Inventory

Military Training Route	Originating Agency*	Scheduling Agency*	Effective Times	Length (NM)**
VR1140	80th Flying Training Wing, 1911 J. Ave. Ste 6, Sheppard AFB, TX 76311-2056 DSN 7	90 FTS/DOTOD, Sheppard AFB, TX 76311 DSN 736-2675/4995, C940-676-2675/4995.	Sunrise–Sunset Mon–Fri, OT by NOTAM	210
VR1141	80th Flying Training Wing, 1911 J. Ave. Ste 6, Sheppard AFB, TX 76311-2056 DSN 7	90 FTS/DOTOD, Sheppard AFB, TX 76311 DSN 736-2675/4995, C940-676-2675/4995.	Sunrise–Sunset Mon–Fri, OT by NOTAM	217
VR1142	80th Flying Training Wing, 1911 J. Ave. Ste 6, Sheppard AFB, TX 76311-2056 DSN 7	90 FTS/DOTOD, Sheppard AFB, TX 76311 DSN 736-2675/4995, C940-676-2675/4995.	Sunrise–Sunset Mon–Fri, OT by NOTAM	217
VR1143	80th Flying Training Wing, 1911 J. Ave. Ste 6, Sheppard AFB, TX 76311-2056 DSN 7	90 FTS/DOTOD, Sheppard AFB, TX 76311 DSN 736-2675/4995, C940-676-2675/4995.	Sunrise–Sunset Mon–Fri, OT by NOTAM	248
VR1144	80th Flying Training Wing, 1911 J. Ave. Ste 6, Sheppard AFB, TX 76311-2056 DSN 7	90 FTS/DOTOD, Sheppard AFB, TX 76311 DSN 736-2675/4995, C940-676-2675/4995.	Sunrise–Sunset Mon–Fri, OT by NOTAM	248
VR1145	80th Flying Training Wing, 1911 J. Ave. Ste 6, Sheppard AFB, TX 76311-2056 DSN 7	90 FTS/DOTOD, Sheppard AFB, TX 76311 DSN 736-2675/4995, C940-676-2675/4995.	Sunrise–Sunset Mon–Fri, OT by NOTAM	231
VR1146	80th Flying Training Wing, 1911 J. Ave. Ste 6, Sheppard AFB, TX 76311-2056 DSN 7	90 FTS/DOTOD, Sheppard AFB, TX 76311 DSN 736-2675/4995, C940-676-2675/4995.	Sunrise–Sunset Mon–Fri, OT by NOTAM	231
VR1175	OC-ALC/10 Flight Test Sqdn, 4805 West Dr, Tinker AFB, OK 73145-3300 DSN 336-7719	Same as Originating Activity	Sunrise–Sunset	315
VR1176	OC-ALC/10 Flight Test Sqdn, 4805 West Dr, Tinker AFB, OK 73145-3300 DSN 336-7719	Same as Originating Activity	Sunrise–Sunset	315
VR118	301 OG/SUA, NAS JRB, Fort Worth, TX 76127 DSN 739-6903/04/05, C817-782-6903/04/0	Same as Originating Activity	Sunrise–Sunset Mon–Sat	82
VR1182	188 FW, 4850 Leigh Ave., Fort Smith, AR 72903-6096 DSN 778-5502.	Same as Originating Activity. Route scheduled no more than 24 hr in advance. Min	Continuous	187
VR119	71 FTW/OSOP, Vance AFB, OK 73705-5202 DSN 448-7850, C580-213-7850.	32 FTS/DOOT, Vance AFB, OK 73705-5202 DSN 448-6251, C580-213-6251.	Sunrise–Sunset Daily	165
VR1195	150 FW OG/CC, 2251 Air Guard Rd. SE, Kirtland AFB, NM 87117-5875 DSN 246-7426.	Same as Originating Activity	Sunrise–2200 local daily	244
VR1196	ANG CRTC-Gulfport/OSA, 4715 Hewes Ave, Gulfport, MS 39507-4324 DSN 363-6027, C22	Same as Originating Activity	Continuous	201
VR1205	COMMANDER AFFTC, 412 OSS/OSAA, 235 E. Flightline Rd., Edwards AFB, CA 93523-6460	COMMANDER AFFTC, 412 OSS/OSR, 300 E. Yeager Blvd., Edwards AFB, CA 93524 DSN 527	Continuous	193
VR1206	COMMANDER AFFTC, 412 OSS/OSAA, 235 S. Flightline Rd, Edwards AFB, CA 93523-6460	COMMANDER AFFTC, 412 OSS/OSR, 300 E. Yeager Blvd, Edwards AFB, CA 93524 DSN 527-	Continuous	45
VR1211	452 OSS/DOT, March Fld, CA 92518 DSN 447-3846, C909-655-3846.	452 OSS/DOT, March Fld, CA 92518 DSN 447-4404/2422, C909-655-4404/2422.	Continuous	106
VR1214	COMMANDER AFFTC, 412 OSS/OSAA, 235 S. Flightline Rd, Edwards AFB, CA 93523-6460	COMMANDER AFFTC, 412 OSS/OSR, 300 E. Yeager Blvd, Edwards AFB, CA 93524 DSN 527-	Continuous	224
VR1215	COMMANDER AFFTC, 412 OSS/OSAA, 235 S. Flightline Rd, Edwards AFB, CA 93523-6460	COMMANDER AFFTC, 412 OSS/OSR, 300 E. Yeager Blvd, Edwards AFB, CA 93524 DSN 527-	Sunrise–Sunset Daily	118
VR1217	COMMANDER AFFTC, 412 OSS/OSAA, 235 S. Flightline Rd, Edwards AFB ,CA 93523-6460	COMMANDER AFFTC, 412 OSS/OSR, 300 E. Yeager Blvd, Edwards AFB, CA 93524 DSN 527-	Sunrise–Sunset Daily	111
VR1218	COMMANDER AFFTC, 412 OSS/OSAA, 235 S. Flightline Rd, Edwards AFB, CA 93523-6460	COMMANDER AFFTC, 412 OSS/OSR, 300 E. Yeager Blvd, Edwards AFB, CA 93524 DSN 527-	Sunrise–Sunset Daily	207
VR1233	355 OSS/OSOA, 3895 S. 6th St. Suite 200, Davis-Monthan AFB, AZ 85707 DSN 228-468	355 OSS/OSOSO, Davis-Monthan AFB, AZ 85707 1500-2300Z Mon-Fri, no earlier than o	1300–0530Z	276
VR125	27 OSS/OSOH, 110 E Sextant Ave, Suite 1081, Cannon AFB, NM 88103 DSN 681-2279.	27 OSS/OSOS, 110 E Sextant Ave, Suite 1080, Cannon AFB, NM 88103 DSN 681-2276.	Continuous	318

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** *Length calculations were performed using an the appropriate Universal Transverse Mercator zones.*

Source: Department of Defense based on data from the National Geospatial-Intelligence Agency (Digital Aeronautical Flight Information File, (effective: January 18, 2008 through Feburary 13, 2008).

Military Training Route Inventory

Military Training Route	Originating Agency*	Scheduling Agency*	Effective Times	Length (NM)**
VR1250	Commander, Strike Fighter Wing, U.S. Pacific Fleet, 001 K Street, NAS Lemoore, C	Same as Originating Activity	Daylight hours, OT by NOTAM	356
VR1251	Commander, Strike Fighter Wing, U.S. Pacific Fleet, 001 K Street, NAS Lemoore, C	Same as Originating Activity	Daylight hours, OT by NOTAM	518
VR1252	Commander, Strike Fighter Wing, U.S. Pacific Fleet, 001 K Street, NAS Lemoore, C	Same as Originating Activity	Daylight hours, OT by NOTAM	185
VR1253	Commander, Strike Fighter Wing, U.S. Pacific Fleet, 001 K Street, NAS Lemoore, C	Same as Originating Activity	Daylight hours, OT by NOTAM	444
VR1254	Commander, Strike Fighter Wing, U.S. Pacific Fleet, 001 K Street, NAS Lemoore, C	Same as Originating Activity	Daylight hours, OT by NOTAM	247
VR1255	Commander, Strike Fighter Wing, U.S. Pacific Fleet, 001 K Street, NAS Lemoore, C	Same as Originating Activity	Daylight hours, OT by NOTAM	296
VR1256	Commander, Strike Fighter Wing, U.S. Pacific Fleet, 001 K Street, NAS Lemoore, C	Same as Originating Activity	Daylight hours, OT by NOTAM	91
VR1257	Commander, Strike Fighter Wing, U.S. Pacific Fleet, 001 K Street, Rm 121, NAS Le	Same as Originating Activity	Daylight hours, OT by NOTAM	437
VR1259	Commander, Strike Fighter Wing, U.S. Pacific Fleet, 001 K Street, NAS Lemoore, C	Same as Originating Activity	Daylight hours, OT by NOTAM	425
VR1260	Commander, Strike Fighter Wing, U.S. Pacific Fleet, 001 K Street, NAS Lemoore, C	Same as Originating Activity	Daylight hours, OT by NOTAM	293
VR1261	Commander, Strike Fighter Wing, U.S. Pacific Fleet, 001 K Street, NAS Lemoore, C	Same as Originating Activity	Daylight hours, OT by NOTAM	387
VR1262	Commander, Strike Fighter Wing, U.S. Pacific Fleet, 001 K Street, NAS Lemoore, C	Same as Originating Activity	Daylight hours, OT by NOTAM	340
VR1264	Commander, Strike Fighter Wing, U.S. Pacific Fleet, 001 K Street, NAS Lemoore, C	Same as Originating Activity	Daylight hours, OT by NOTAM	150
VR1265	G-3, 3D MAW, MCAS Miramar, San Diego, CA 92145 DSN 267-9462, C858-577-9462. Non-	Same as Originating Activity	Continuous	406
VR1266	Commanding Officer, Yuma MCAS, Box 99160 Yuma, AZ 85369-9160 DSN 269-2326/2077,	Same as Originating Activity	0700–1800 local (daylight hours)	158
VR1267	Commanding Officer, Yuma MCAS, Box 99160 Yuma, AZ 85369-9160 DSN 269-2326/2077,	Same as Originating Activity	0700–1800 local	216
VR1267A	Commanding Officer, Yuma MCAS, Box 99160 Yuma, AZ 85369-9160 DSN 269-2326/2077,	Same as Originating Activity	0700–1800 local	101
VR1268	Commanding Officer, Yuma MCAS, Box 99160 Yuma, AZ 85369-9160 DSN 269-2326/2077,	Same as Originating Activity	0700–1800 local	372
VR1293	COMMANDER AFFTC, 412 OSS/OSAA, 235 S. Flightline Rd, Edwards AFB, CA 93523-6460	COMMANDER AFFTC, 412 OSS/OSR, 300 E. Yeager Blvd, Edwards AFB, CA 93524 DSN 527-	Continuous	20

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Source: Department of Defense based on data from the National Geospatial-Intelligence Agency (Digital Aeronautical Flight Information File, (effective: January 18, 2008 through Feburary 13, 2008).

Military Training Route Inventory

Military Training Route	Originating Agency*	Scheduling Agency*	Effective Times	Length (NM)**
VR1300	124 WG/OGAM (ANG), 3996 W. Aeronca St., Boise, ID 83705-8004 DSN 422-5310, C208-	124 WG/OSS (ANG), 3996 W. Aeronca St., Boise, ID 83705-8004 DSN 422-5348, C208-4	Continuous or by NOTAM	421
VR1301	124 WG/OGAM (ANG), 3996 W. Aeronca St., Boise, ID 83705-8004 DSN 422-5310, C208-	124 WG/OSS (ANG), 3996 W. Aeronca St., Boise, ID 83705-8004 DSN 422-5348, C208-4	Continuous	319
VR1302	124 WG/OGAM (ANG), 3996 W. Aeronca St., Boise, ID 83705-8004 DSN 422-5310, C208-	124 WG/OSS (ANG), 3996 W. Aeronca St., Boise, ID 83705-8004 DSN 422-5348, C208-4	Continuous	190
VR1303	124 WG/OGAM (ANG), 3996 W. Aeronca St., Boise, ID 83705-8004 DSN 422-5310, C208-	124 WG/OSS (ANG), 3996 W. Aeronca St., Boise, ID 83705-8004 DSN 422-5348, C208-4	Continuous or by NOTAM	432
VR1304	124 WG/OGAM (ANG), 3996 W. Aeronca St., Boise, ID 83705-8004 DSN 422-5310, C208-	124 WG/OSS (ANG), 3996 W. Aeronca St., Boise, ID 83705-8004 DSN 422-5348, C208-4	Continuous or by NOTAM	453
VR1305	124 WG/OGAM (ANG), 3996 W. Aeronca St., Boise, ID 83705-8004 DSN 422-5310, C208-	124 WG/OSS (ANG), 3996 W. Aeronca St., Boise, ID 83705-8004 DSN 422-5348, C208-4	Continuous or by NOTAM	453
VR1350	Commanding Officer (N38), NAS Whidbey Island, 3730 N. Charles Porter Ave, Oak Ha	Same as Originating Activity	Continuous	262
VR1351	Commanding Officer (N38), NAS Whidbey Island, 3730 N. Charles Porter Ave, Oak Ha	Same as Originating Activity	Continuous	373
VR1352	Commanding Officer (N38), NAS Whidbey Island, 3730 N. Charles Porter Ave, Oak Ha	Same as Originating Activity	Continuous	315
VR1353	Commanding Officer (N38), NAS Whidbey Island, 3730 N. Charles Porter Ave, Oak Ha	Same as Originating Activity	Continuous	315
VR1354	Commanding Officer (N38), NAS Whidbey Island, 3730 N. Charles Porter Ave, Oak Ha	Same as Originating Activity	Continuous	130
VR1355	Commanding Officer (N38), NAS Whidbey Island, 3730 N. Charles Porter Ave, Oak Ha	Same as Originating Activity	Continuous	222
VR138	184 ARW (Kansas ANG), McConnell AFB, KS 67221-9010 (1330-2215Z wkd, scheduling r	Same as Originating Activity	0700–2100 local daily	190
VR140	12 OSS/OSOA, 501 I Street East, Randolph AFB, TX 78150-4333 DSN 487-5580, C210-6	560 FTS, 1450 5th Street East, Randolph AFB, TX 78150, DSN 487-3518, C210-652-35	Sunrise–Sunset, daily	241
VR142	12 OSS/OSOA, 501 I Street East, Randolph AFB, TX 78150-4333 DSN 487-5580, C210-6	99 FTS, 1450 5th Street East, Randolph AFB, TX 78150-5000 DSN 487-6746.	Sunrise–Sunset, daily	177
VR1422	388 RANS/RST, 6606 Cedar Lane, Hill AFB, UT 84056-5812, DSN 777-4401, C801-777-4	Same as Originating Activity.	0700–2400 lcl Mon–Thurs, 0700–1800 lcl Fri, 0800–1700 lcl Sat	152
VR1423	388 RANS/RST, 6606 Cedar Lane, Hill AFB, UT 84056-5812, DSN 777-4401, C801-777-4	Same as Originating Activity.	0700–2400 lcl Mon–Thurs, 0700–1800 lcl Fri, 0800–1700 lcl Sat	90
VR1427	140th Wing /DOT, Buckley ANGB, Aurora, CO 80011-9546 DSN 847-9466, C303-340-9470	140th Wing /DOT, Buckley ANGB, Aurora, CO 80011-9546 DSN 847-9472, C720-847-9472	0800–1600 local Tue–Sat, OT by NOTAM	196
VR143	301 OG/SUA, NAS JRB, Fort Worth, TX 76127 DSN 739-6903/04/05, C817-782-6903/04/0	Same as Originating Activity	0700–2200 local	371
VR144	97 OSS/DOA, 400 N Sixth St., Altus AFB, OK 73521 DSN 866-6098, C580-481-6098.	97 OSS/OSK, 400 N Sixth St. Suite 12, Altus AFB, OK 73521 DSN 866-7110.	0830–0230 Local Mon–Fri	72
VR1445	388 RANS/RST, 6606 Cedar Lane, Hill AFB, UT 84056-5812, DSN 777-4401, C801-777-4	Same as Originating Activity.	0700–2400 lcl Mon–Thurs, 0700–1800 lcl Fri, 0800–1700 lcl Sat	10
VR1446	388 RANS/RST, 6606 Cedar Lane, Hill AFB, UT 84056-5812, DSN 777-4401, C801-777-4	Same as Originating Activity.	0700–2400 lcl Mon–Thurs, 0700–1800 lcl Fri, 0800–1700 lcl Sat	10

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Source: Department of Defense based on data from the National Geospatial-Intelligence Agency (Digital Aeronautical Flight Information File, (effective: January 18, 2008 through Feburary 13, 2008).

Military Training Route Inventory

Military Training Route	Originating Agency*	Scheduling Agency*	Effective Times	Length (NM)**
VR151	COMTRAWING TWO, NAS Kingsville, TX 78363 DSN 876-6518, C361-516-6518.	Same as Originating Activity. Scheduling hrs-0800-1600 local Mon-Fri ONLY (exclu	Daily 0600–2200 local	229
VR152	184 ARW (Kansas ANG), McConnell AFB,KS 67221-9010 (1330-2215Z wkd, sked rqr 2 hr	Same as Originating Activity	0600–2200 local	191
VR1520	114 FW (ANG), Joe Foss Field, Sioux Falls, SD 57104-0264 DSN 798-7745/7746, C605	Same as Originating Activity.	Daylight hours, Mon–Sat, OT By NOTAM	279
VR1521	114 FW (ANG), Joe Foss Field, Sioux Falls, SD 57104-0264 DSN 798-7745/7746, C605	Same as Originating Activity.	Daylight hours, Mon–Sat, OT by NOTAM	279
VR1525	509 OSS/OSKA, 905 Spirit Blvd, Whiteman AFB, MO 65305 DSN 975-1713/1754, C660-68	Same as Originating Activity	Sunrise–Sunset Tue–Sun	124
VR1546	188 FW, 4850 Leigh Ave., Fort Smith, AR 72903-6096 DSN 778-5502.	Same as Originating Activity. Route scheduled no more than 24 hr in advance. Min	Continuous (except Sunday 1000–1200 local)	123
VR156	149 FTR GP (TX-ANG), Kelly AFB, TX 78241 DSN 945-5934, C210-925-5934.	Same as Originating Activity	0800–1830 local daily, Prior coordination required for Sun–Mon operations	210
VR158	80th Flying Training Wing, 1911 J. Ave. STE 6, Sheppard AFB, TX 76311-2056 DSN 7	90 FTS/DOTOD, Sheppard AFB, TX 76311 DSN 736-2675/4995, C940-676-2675/4995.	Sunrise–Sunset Mon–Fri; OT by NOTAM	211
VR159	80th Flying Training Wing, 1911 J. Ave. STE 6, Sheppard AFB, TX 76311-2056 DSN 7	90 FTS/DOTOD, Sheppard AFB, TX 76311 DSN 736-2675/4995, C940-676-2675/4995.	Sunrise–Sunset Mon–Fri, OT by NOTAM	206
VR1616	ANG CRTC, Camp Douglas, WI 54618-5001 DSN 871-1445 C608-427-1445.	Same as Originating Activity	Sunrise to Sunset Mon–Sat, OT by NOTAM	169
VR1617	180th TFG/DO (ANG), Toledo Express Airport, Swanton, OH 43558 DSN 580-4084.	Same as Originating Activity	Sunrise–2100 local	191
VR162	80th Flying Training Wing, 1911 J. Ave. STE 6, Sheppard AFB, TX 76311-2056 DSN73	90 FTS/DOTOD, Sheppard AFB, TX 76311 DSN 736-2675/4995, C817-676-2675/4995.	Sunrise–Sunset Mon–Fri, OT by NOTAM	233
VR1624	127th OG/CC, Selfridge ANGB, MI 48045-5029 DSN 273-5055.	Same as Originating Activity	Sunrise–Sunset	233
VR1625	127th OG/CC, Selfridge ANGB, MI 48045-5029 DSN 273-5055.	Same as Originating Activity	Sunrise–Sunset	168
VR1626	127th OG/CC, Selfridge ANGB, MI 48045-5029 DSN 273-5055/5719.	Same as Originating Activity	Sunrise–Sunset	145
VR1627	127th OG/CC, Selfridge ANGB, MI 48045-5029 DSN 273-5055.	Same as Originating Activity	Sunrise–Sunset	227
VR1628	127th OG/CC, Selfridge ANGB, MI 48045-5029 DSN 273-5055.	Same as Originating Activity	Sunrise–Sunset	284
VR1629	127th OG/CC, Selfridge ANGB, MI 48045 DSN 273-5055/5719.	Same as Originating Activity	Sunrise–Sunset	218
VR163	80th Flying Training Wing, 1911 J. Ave. STE 6, Sheppard AFB, TX 76311-2056 DSN 7	90 FTS/DOTOD, Sheppard AFB, TX 76311 DSN 736-2675/4995, C940-676-2675/4995.	Sunrise–Sunset Mon–Fri, OT by NOTAM	196
VR1631	123 ACS, Blue Ash, OH 45242 DSN 340-2950, C513-936-2950.	Same as Originating Activity	Continuous	230

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Source: Department of Defense based on data from the National Geospatial-Intelligence Agency (Digital Aeronautical Flight Information File, (effective: January 18, 2008 through Feburary 13, 2008).

Military Training Route Inventory

Military Training Route	Originating Agency*	Scheduling Agency*	Effective Times	Length (NM)**
VR1632	123 ACS, Blue Ash, OH 45242 DSN 340-2950, C513-936-2950.	Same as Originating Activity	Continuous	202
VR1633	123 ACS, Blue Ash, OH 45242 DSN 340-2950, C513-936-2950.	Same as Originating Activity	Continuous	217
VR1635	183 FW/OSF, Capital Airport, Springfield, IL 62707 DSN 892-8202.	Same as Originating Activity	Sunrise–Sunset only	135
VR1636	Alpena CRTC/OTM (ANG), 5884 A. Street, Alpena, MI 49707-8125 DSN 741-3509/3226.	Same as Originating Activity	Continuous	137
VR1638	180TH TFG/DO, Toledo Express Airport, Swanton, OH 43558 DSN 580-4084.	Same as Originating Activity	Sunrise–2100 local	152
VR1639	127th OG/CC, Selfridge ANGB, MI 48045 DSN 273-5055.	Same as Originating Activity	Sunrise–Sunset	218
VR1640	122 FW, Ft. Wayne IAP, IN 46809-0122 DSN 786-1202.	Same as Originating Activity	1300–0300Z++ daily	228
VR1641	122 FW, Ft. Wayne IAP, IN 46809-0122 DSN 786-1202.	Same as Originating Activity	1300–0300Z++ daily	135
VR1642	122 FW, Ft. Wayne IAP, IN 46809-0122 DSN 786-1202.	Same as Originating Activity	1300–0100Z++ daily	176
VR1644	127TH OG/CC, Selfridge ANGB, MI 48045-5029 DSN 273-5055.	Same as Originating Activity	Sunrise–Sunset	190
VR1645	127TH OG/CC, Selfridge ANGB, MI 48045-5029 DSN 273-5055.	Same as Originating Activity	Sunrise–Sunset	168
VR1647	127TH OG/CC, Selfridge ANGB, MI 48045-5029 DSN 273-5055.	Same as Originating Activity	Sunrise–Sunset	227
VR1648	127TH OG/CC, Selfridge ANGB, MI 48045-5029 DSN 273-5055.	Same as Originating Activity	Sunrise–Sunset	284
VR1650	ANG CRTC, Camp Douglas, WI 54618-5001 DSN 871-1445 C608-427-1445.	Same as Originating Activity	0730 local–Sunset Tue–Sat, OT by NOTAM	84
VR1666	Alpena CRTC/OTM (ANG), 5884 A. Street, Alpena, MI 49707-8125 DSN 741-3509/3226.	Same as Originating Activity	Continuous	137
VR1667	180 TFG/DO, Toledo Express Airport, Swanton, OH 43558 DSN 580-4084.	Same as Originating Activity	Sunrise–0200Z++	191
VR1668	180 TFG/DO, Toledo Express Airport, Swanton, OH 43558 DSN 580-4084.	Same as Originating Activity	Sunrise–2100 local	152
VR1679	181st TFG (ANG), Hulman Regional, Terre Haute, IN 47803 DSN 724-1234.	Same as Originating Activity	Sunrise–Sunset Tue–Sun, OT by NOTAM	264
VR168	COMTRAWING TWO, NAS Kingsville, TX 78363 DSN 876-6518, C361-516-6518.	Same as Originating Activity. Scheduling hrs—0800–1600 local Mon–Fri ONLY (exclu	0600–2400 local daily	248
VR1709	177th FW/Det 1 (ANG), Atlantic City ANGB, NJ 08234-9500 DSN 455-6707. E-mail wgr	Same as Originating Activity	Sunrise–Sunset Daily	294
VR1711	113 WG, Andrews AFB, MD 20331 DSN 857-3307/08, C240-857-3307/3308/4190.	Same as Originating Activity	0730 local–Sunset daily	158
VR1712	113 WG, Andrews AFB, MD 20331 DSN 857-3307/08, C240-857-3307/3308/4190.	Same as Originating Activity	0730 local–Sunset daily	186
VR1713	113 WG, Andrews AFB, MD 20331 DSN 857-3307/08, C240-857-3307/3308/4190.	Same as Originating Activity	0730 local–Sunset daily	195
VR1721	20 OSS/OSTA, Shaw AFB, SC 29152 DSN 965-1121/1122, C803-895-1121/1122, Fax DSN 9	20 OSS/OSOS, Shaw AFB, SC 29152-5000 DSN 965-1118/1119, C803-895-1118, Fax DSN 9	Continuous	172
VR1722	192nd FG (ANG), Byrd Intl, Richmond, VA 23150 DSN 864-6411/6410.	Same as Originating Activity	Sunrise–Sunset	303
VR1726	20 OSS/OSTA, Shaw AFB, SC 29152 DSN 965-1121/1122, C803-895-1121/1122, Fax DSN 9	20 OSS/OSOS, Shaw AFB, SC 29152-5000 DSN 965-1118/1119, C803-895-1118, Fax DSN 9	Continuous	144

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Source: Department of Defense based on data from the National Geospatial-Intelligence Agency (Digital Aeronautical Flight Information File, (effective: January 18, 2008 through Feburary 13, 2008).

Military Training Route Inventory

Military Training Route	Originating Agency*	Scheduling Agency*	Effective Times	Length (NM)**
VR1743	20 OSS/OSTA, Shaw AFB, SC 29152 DSN 965-1121/1122, C803-895-1121/1122, Fax DSN 9	20 OSS/OSOS, Shaw AFB, SC 29152-5000 DSN 965-1118/1119, C803-895-1118, Fax DSN 9	Continuous	144
VR1753	COMSTRKFIGHTWINGLANT NAS Oceana, Virginia Beach, VA 23460-5200 DSN 433-4013, C75	FACSFAC/VACAPES, NAS Oceana, Virginia Beach, VA 23460 DSN 433-1228 C757-433-1228	Continuous	173
VR1754	COMSTRKFIGHTWINGLANT NAS Oceana, Virginia Beach, VA 23460-5200 DSN 433-4013, C75	FACSFAC/VACAPES, NAS Oceana, Virginia Beach, VA 23460 DSN 433-1228 C757-433-1228	Continuous	371
VR1755	COMSTRKFIGHTWINGLANT, NAS Oceana, Virginia Beach, VA 23460-5200 DSN 433-4013, C7	FACSFAC/VACAPES, NAS Oceana, Virginia Beach, VA 23460 DSN 433-1228 C757-433-1228	Continuous	224
VR1756	COMSTRKFIGHTWINGLANT, NAS Oceana, Virginia Beach, VA 23460-5200 DSN 433-4013, C7	FACSFAC/VACAPES, NAS Oceana, Virginia Beach, VA 23460 DSN 433-1228 C757-433-1228	Continuous	363
VR1757	COMSTRKFIGHTWINGLANT, NAS Oceana, Virginia Beach, VA 23460-5200 DSN 433-4013, C7	FACSFAC/VACAPES, NAS Oceana, Virginia Beach, VA 23460 DSN 433-1228 C757-433-1228	Continuous	168
VR1759	COMSTRKFIGHTWINGLANT, NAS Oceana, Virginia Beach, VA 23460-5200 DSN 433-4013, C7	FACSFAC/VACAPES, NAS Oceana, Virginia Beach, VA 23460 DSN 433-1228, C757-433-122	Continuous	194
VR176	150 FW OG/CC 2251, Air Guard Rd. SE, Kirtland AFB, NM 87117-5875 DSN 246-7426.	Same as Originating Activity	Normally 1500–2400Z++ daily, usage between 2400–1500Z++ is available	470
VR179	ANG CRTC-Gulfport/OSA, 4715 Hewes Ave, Gulfport, MS 39507-4324 DSN 363-6027, C22	Same as Originating Activity	Continuous	171
VR1800	174th FW, 6001 E. Molloy Rd, Syracuse, NY 13211-7099 DSN 489-9217.	174th FW, Det. 1, Ft. Drum, NY 13608 DSN 772-5990/2835 C315-772-5990.	0800 local–Sunset daily	136
VR1801	174th FW, 6001 E. Molloy Rd, Syracuse, NY 13211-7099 DSN 489-9217.	174th FW, Det. 1, Ft. Drum, NY 13608 DSN 772-5990/2835, C315-772-5990.	0800 local–Sunset daily	130
VR184	97 OSS/DOA, 400 N. Sixth Street, Altus AFB, OK 73521 DSN 866-6098 C580-481-6098.	97 OSS/OSK, 400 N. Sixth Street, Suite 12, Altus AFB, OK 73521 DSN 866-7110.	0830–0230 local, Mon–Fri	71
VR186	301 OG/SUA, NAS JRB, Fort Worth, TX 76127 DSN 739-6903/04/05, C817-782-6903/04/0	Same as Originating Activity	0700–2200 local	295
VR187	12 OSS/OSOA, 501 I Street East, Randolph AFB, TX 78150-4333 DSN 487-5580, C210-6	99 FTS, 1450 5TH Street East, Randolph AFB, TX 78150-5000 DSN 487-6746.	Sunrise–Sunset, daily	243
VR188	12 OSS/OSOA, 501 I Street East, Randolph AFB, TX 78150-4333 DSN 487-5580, C210-6	99 FTS, 1450 5th Street East, Randolph AFB, TX 78150-5000 DSN 487-6746.	Sunrise–Sunset, daily	213
VR189	188 FW, 4850 Leigh Ave., Fort Smith, AR 72903-6096 DSN 778-5502.	Same as Originating Activity. Route scheduled no more than 24 hr in advance. Min	Continuous	219
VR190	97 OSS/DOA, 400 N. Sixth Street, Altus AFB, OK 73521 DSN 866-6098 C580-6098.	97 OSS/OSK, 400 N. Sixth Street, Suite 12, Altus AFB, OK 73521 DSN 866-7110.	0830–0230 local Mon–Fri	152
VR1900	611 AOG/CC, 9480 Pease Ave., Ste 102, Elmendorf AFB, AK 99506-2100 DSN 317-552-2	353 CTS/JSO, Eielson AFB, AK 99702 C907-377-3005 DSN 317-377-3005.	Normal use 0800–2000 local Mon–Fri, Not available 2200–0700 local	160
VR1902	611 AOG/CC, 9480 Pease Ave., Ste 102, Elmendorf AFB, AK 99506-2100 DSN 317-552-2	3 OSS/OSOS, Elmendorf AFB, AK 99506 DSN 317-552-2406 C907-552-2406.	Normal use 0800–2000 local Mon–Fri, Not available 2200–0700 local	175

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Military Training Route Inventory

Military Training Route	Originating Agency*	Scheduling Agency*	Effective Times	Length (NM)**
VR1905	611 AOG/CC, 9480 Pease Ave., Ste 102, Elmendorf AFB, AK 99506-2100 DSN 317-552-2	3 OSS/OSOS, Elmendorf AFB, AK 99506 DSN 317-552-2406, C907-552-2406.	Normal use 0800–2000 local Mon–Fri, Not available 2200–0700 local	372
VR1909	611 AOG/CC, 9480 Pease Ave., Ste 102, Elmendorf AFB, AK 99506-2100 DSN 317-552-2	353 CTS/JSO, Eielson AFB, AK 99702 C907-377-3005 DSN 317-377-3005.	Normal use 0800–2000 local Mon–Fri, Not available 2200–0700 local	76
VR191	97 OSS/DOA, 400 N. Sixth Street, Altus AFB, OK 73521 DSN 866-6098 C580-6098.	97 OSS/OSK, 400 N. Sixth Street,Suite 12, Altus AFB, OK 73521 DSN 866-7110.	0830–0230 local Mon–Fri	152
VR1912	611 AOG/CC, 9480 Pease Ave., Ste 102, Elmendorf AFB, AK 99506-2100 DSN 317-552-2	3 OSS/OSOS, Elmendorf AFB, AK 99506 DSN 317-552-2406, C907-552-2406.	Normal use 0800–2000 local Mon–Fri, Not available 2200–0700 local	175
VR1915	611 AOG/CC, 9480 Pease Ave., Ste 102, Elmendorf AFB, AK 99506-2100 DSN 317-552-2	3 OSS/OSOS, Elmendorf AFB, AK 99506 DSN 317-552-2406, C907-552-2406.	Normal use 0800–2000 local Mon–Fri, Not available 2200–0700 local	339
VR1916	611 AOG/CC, 9480 Pease Ave., Ste 102, Elmendorf AFB, AK 99506-2100 DSN 317-552-2	353 CTS/JSO, Eielson AFB, AK 99702 DSN 317-377-3005, C907-377-3005.	Normal use 0800–2000 local Mon–Fri, Not available 2200–0700 local	137
VR1926	611 AOG/CC, 9480 Pease Ave., Ste 102, Elmendorf AFB, AK 99506-2100 DSN 317-552-2	353 CTS/JSO, Eielson AFB, AK 99702 DSN 317-377-3005, C907-377-3005.	Normal use 0800–2000 local Mon–Fri, Not available 2200–0700 local	102
VR1927	611 AOG/CC, 9480 Pease Ave., Ste 102, Elmendorf AFB, AK 99506-2100 DSN 317-552-2	353 CTS/JSO, Eielson AFB, AK 99702 DSN 317-377-3005, C907-377-3005.	Normal use 0800–2000 local Mon–Fri, Not available 2200–0700 local	52
VR1928	611 AOG/CC, 9480 Pease Ave., Ste 102, Elmendorf AFB, AK 99506-2100 DSN 317-552-2	353 CTS/JSO, Eielson AFB, AK 99702 DSN 317-377-3005, C907-377-3005.	Normal use 0800–2000 local Mon–Fri, Not available 2200–0700 local	37
VR1929	611 AOG/CC, 9480 Pease Ave., Ste 102, Elmendorf AFB, AK 99506-2100 DSN 317-552-2	353 CTS/JSO, Eielson AFB, AK 99702 DSN 317-377-3005, C907-377-3005.	Normal use 0800–2000 local Mon–Fri, Not available 2200–0700 local	37
VR1939	611 AOG/CC, 9480 Pease Ave., Ste 102, Elmendorf AFB, AK 99506-2100 DSN 317-552-2	353 CTS/JSO, Eielson AFB, AK 99702 DSN 317-377-3005, C907-377-3005.	Normal use 0800–2000 local Mon–Fri, Not available 2200–0700 local	76
VR196	47 OSS/OSOR, 570 2nd St., Ste 6, Laughlin AFB, TX 78843-5222 DSN 732-5864, C830-	86 FTS/DOS, 80 Rio Lobo Ln, Laughlin AFB, TX 78843 DSN 732-5584, C830-298-5584.	Sunrise–Sunset Daily	189
VR197	47 OSS/OSOR, 570 2nd St., Ste 6, Laughlin AFB, TX 78843-5222 DSN 732-5864, C830-	86 FTS/DOS, 80 Rio Lobo Ln, Laughlin AFB, TX 78843 DSN 732-5584, C830-298-5584.	Sunrise–Sunset Daily	189

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Military Training Route Inventory

Military Training Route	Originating Agency*	Scheduling Agency*	Effective Times	Length (NM)**
VR198	97 OSS/DOA, 400 N. 6th St., Ste. A, Altus AFB, OK 73521 DSN 866-6098, C580-481-6	Same as Originating Activity	0600–0300 local, Mon–Fri, OT by NOTAM	195
VR199	97 OSS/DOA, 400 N. 6th St., Ste. A, Altus AFB, OK 73521 DSN 866-6098, C580-481-6	Same as Originating Activity	0600–0300 local, Mon–Fri, OT by NOTAM	195
VR201	Commander, Strike Fighter Wing, U.S. Pacific Fleet, 001 K Street, NAS Lemoore, C	Same as Originating Activity	Daylight hours, OT by NOTAM	168
VR202	Commander, Strike Fighter Wing, U.S. Pacific Fleet, 001 K Street, NAS Lemoore, C	Same as Originating Activity	Daylight hours, OT by NOTAM	312
VR208	Commander, Strike Fighter Wing, U.S. Pacific Fleet, 001 K Street, NAS Lemoore, C	Same as Originating Activity	0800–1630 local	194
VR209	Commander, Strike Fighter Wing, U.S. Pacific Fleet, 001 K Street, NAS Lemoore, C	Same as Originating Activity	Daylight hours, OT by NOTAM	594
VR222	57 OSS/OSM, Nellis AFB, NV 89191-6067 DSN 682-7891, C702-652-7891.	Same as Originating Activity	Continuous	359
VR223	56 RMO/ASM, 7224 N. 139th Drive, Luke AFB, AZ 85309-1420 DSN 896-5855, C623-856-	56 RMO/ASMS, 7224 N. 139th Drive, Luke AFB, AZ 85309-1420 DSN 896-7654, C623-856	0600–2400 Mon–Fri local, Wkend/hol when sked with Goldwater Rng/Sell MOA Msn	127
VR231	56 RMO/ASM, 7224 N. 139th Drive, Luke AFB, AZ 85309-1420 DSN 896-5855, C623-856-	56 RMO/ASMS, 7224 N. 139th Drive, Luke AFB, AZ 85309-1420 DSN 896-7654, C623-856	0600–2400 Mon–Fri local, Wkend/hol when sked with Goldwater Rng/Sell MOA Msn	109
VR239	56 RMO/ASM, 7224 N. 139th Drive, Luke AFB, AZ 85309-1420 DSN 896-5855, C623-856-	56 RMO/ASMS, 7224 N. 139th Drive, Luke AFB, AZ 85309-1420 DSN 896-7654, C623-856	0600–2400 Mon–Fri local, Wkend/hol when sked with Goldwater Rng/Sell MOA Msn	300
VR241	56 RMO/ASM, 7224 N. 139th Drive, Luke AFB, AZ 85309-1420 DSN 896-5855, C623-856-	56 RMO/ASMS, 7224 N. 139th Drive, Luke AFB, AZ 85309-1420 DSN 896-7654, C623-856	0600–2400 Mon–Fri local, Wkend/hol when sked with Goldwater Rng/Sell MOA Msn	218
VR242	56 RMO/ASM, 7224 N. 139th Drive, Luke AFB, AZ 85309-1420 DSN 896-5855, C623-856-	56 RMO/ASMS, 7224 N. 139th Drive, Luke AFB, AZ 85309-1420 DSN 896-7654, C623-856	0600–2400 Mon–Fri local, Wkend/hol when sked with Goldwater Rng/Sell MOA Msn	218

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Source: Department of Defense based on data from the National Geospatial-Intelligence Agency (Digital Aeronautical Flight Information File, (effective: January 18, 2008 through Feburary 13, 2008).

Military Training Route Inventory

Military Training Route	Originating Agency*	Scheduling Agency*	Effective Times	Length (NM)**
VR243	56 RMO/ASM, 7224 N. 139th Drive, Luke AFB, AZ 85309-1420 DSN 896-5855, C623-856-	56 RMO/ASMS, 7224 N. 139th Drive, Luke AFB, AZ 85309-1420 DSN 896-7654, C623-856	0600–2400 Mon–Fri local, Wkend/hol when sked with Goldwater Rng/Sell MOA Msn	270
VR244	56 RMO/ASM, 7224 N. 139th Drive, Luke AFB, AZ 85309-1420 DSN 896-5855, C623-856-	56 RMO/ASMS, 7224 N. 139th Drive, Luke AFB, AZ 85309-1420 DSN 896-7654, C623-856	0600–2400 Mon–Fri local, Wkend/hol when sked with Goldwater Rng/Sell MOA Msn	272
VR245	56 RMO/ASM, 7224 N. 139th Drive, Luke AFB, AZ 85309-1420 DSN 896-5855, C623-856-	56 RMO/ASMS, 7224 N. 139th Drive, Luke AFB, AZ 85309-1420 DSN 896-7654, C623-856	0600–2400 Mon–Fri local, Wkend/hol when sked with Goldwater Rng/Sell MOA Msn	208
VR249	G-3, 3D MAW, MCAS Miramar, San Diego, CA 92145 DSN 267-9462, C858-577-9462. Non-	Same as Originating Activity	Continuous	101
VR259	162 FW/OGC, 1660 E. El Tigre Way, Tucson, AZ 85706-6086 DSN 844-6371, C520-295-6	Same as Originating Activity	Continuous	309
VR260	162 FW/OGC, 1660 E. El Tigre Way, Tucson, AZ 85706-8086 DSN 844-6371 C520-295-63	Same as Originating Activity	Continuous	276
VR263	162 FW/OGC, 1660 E. El Tigre Way, Tucson, AZ, 85706-6086 DSN 844-6371 C520-295-6	Same as Originating Activity	Continuous	433
VR267	355 OSS/OSOA, 3895 S. 6th St. Suite 200, Davis-Monthan AFB, AZ 85707 DSN 228-468	355 OSS/OSOSO, Davis-Monthan AFB, AZ 85707 1500-2300Z Mon-Fri, no earlier than o	1300–0530Z	199
VR268	355 OSS/OSOA, 3895 S. 6th St. Suite 200, Davis-Monthan AFB, AZ 85707 DSN 228-468	355 OSS/OSOSO, Davis-Monthan AFB, AZ 85707 1500-2300Z Mon-Fri, no earlier than o	1300–0530Z++	155
VR269	355 OSS/OSOA, 3895 S. 6th St. Suite 200, Davis-Monthan AFB, AZ 85707 DSN 228-468	355 OSS/OSOSO, Davis-Monthan AFB, AZ 85707 1500-2300Z Mon-Fri, no earlier than o	1300–0530Z++	181
VR288	452 OSS/OSK, March ARB, CA 92518 DSN 447-4376, C909-655-4376.	452 OSS/OSAA, March ARB, CA 92518 DSN 447-4404/2422, C909-655-4404/2422.	Continuous	110
VR289	452 OSS/OSK, March ARB, CA 92518 DSN 447-4376, C909-655-4376.	452 OSS/OSAA, March ARB, CA 92518 DSN 447-4404/2422, C909-655-4404/2422.	Continuous	157
VR296	452 OSS/OSK, March ARB, CA 92518 DSN 447-4376, C909-655-4376.	452 OSS/OSAA, March ARB, CA 92518 DSN 447-4404/2422, C909-655-4404/2422.	Continuous	226
VR299	452 OSS/DOT, March Fld, CA 92518 DSN 447-3846, C909-655-3846.	452 OSS/DOT, March Fld, CA 92518 DSN 447-4404/2422, C909-655-4404/2422.	Continuous	208
VR316	124 WG/OGAM (ANG), 3996 W. Aeronca St., Boise, ID 83705-8004 DSN 422-5310, C208-	124 WG/OSS (ANG), 3996 W. Aeronca St., Boise, ID 83705-8004 DSN 422-5348, C208-4	Continuous or by NOTAM	301
VR319	124 WG/OGAM (ANG), 3996 W. Aeronca St., Boise, ID 83705-8004 DSN 422-5310, C208-	124 WG/OSS (ANG), 3996 W. Aeronca St., Boise, ID 83705-8004 DSN 422-5348, C208-4	Continuous or by NOTAM	301
VR331	62 OSS/OSKA, 1172 Levitow Blvd, McChord AFB, WA 98438 DSN 382-3615, C253-982-361	62 OSS/OSO, 100 Main St., McChord AFB, WA 98438 DSN 382-9925, C253-982-9925. Dut	Continuous	179
VR410	140th Wing /Airspace Office, Buckley AFB, Aurora Co, 80011-9546 DSN 847-9470/947	Same as Originating Activity.	0800–1600 local Tue–Sat, OT by NOTAM	15
VR411	140th Wing /Airspace Office, Buckley AFB, Aurora Co, 80011-9546 DSN 847-9470/947	Same as Originating Activity.	0800–1600 local Tue–Sat, OT by NOTAM	15

* *Data fields are limited to 80 characters in the source database [National Geospatial-Intelligence Agency (Digital Aeronautical Flight Information File)]; therefore, some data field entries are not complete. Please refer to DoD Flight Information Publications for complete originating and scheduling activity information.*

** *Length calculations were performed using an the appropriate Universal Transverse Mercator zones.*

Source: Department of Defense based on data from the National Geospatial-Intelligence Agency (Digital Aeronautical Flight Information File, (effective: January 18, 2008 through Feburary 13, 2008).

Military Training Route Inventory

Military Training Route	Originating Agency*	Scheduling Agency*	Effective Times	Length (NM)**
VR413	140th Wing /Airspace Office, Buckley AFB, Aurora Co, 80011-9546 DSN 847-9470/947	Same as Originating Activity.	0800–1600 local Tue–Sat, OT by NOTAM	184
VR510	114 FW (ANG), Joe Foss Field, Sioux Falls, SD 57104-0264 DSN 798-7754/7746, C605	Same as Originating Activity	Daylight Hours Tue–Sat, OT by NOTAM	315
VR511	132 FW OG/CC (ANG), 3100 McKinley Ave, Des Moines, IA 50321-2799 DSN 256-8250 C5	Same as Originating Activity	By NOTAM, (2 hr prior notification required)	264
VR512	132 FW OG/CC (ANG), 3100 McKinley Ave, Des Moines, IA 50321-2799 DSN 256-8250 C5	Same as Originating Activity	By NOTAM, 2hr prior notification required	264
VR531	184 ARW (Kansas ANG), McConnell AFB,KS 67221-9010 (1330-2215Z wkd, sked rqr 2 hr	Same as Originating Activity	0700–1730 local daily	181
VR532	184 ARW (Kansas ANG),McConnell AFB, KS 67221-9010 (1330-2215Z wkd, sked rqr 2 hr	Same as Originating Activity	0700–1700 local daily	329
VR533	184 ARW (Kansas ANG),McConnell AFB, KS 67221-9010 (1330-2215Z wkd, sked rqr 2 hr	Same as Originating Activity	0700–2200 local daily	165
VR534	184 ARW (Kansas ANG),McConnell AFB, KS 67221-9010 (1330-2215Z wkd, sked rqr 2 hr	Same as Originating Activity	0730–2000 local daily	169
VR535	184 ARW (Kansas ANG),McConnell AFB, KS 67221-9010 (1330-2215Z wkd, sked rqr 2 hr	Same as Originating Activity	0700–1900 local daily	179
VR536	184 ARW (Kansas ANG),McConnell AFB, KS 67221-9010 (1330-2215Z wkd, sked rqr 2 hr	Same as Originating Activity	0700–1700 local daily	157
VR540	132 FW OG/CC (ANG), 3100 McKinley Ave, Des Moines, IA 50321-2799 DSN 256-8250 C5	Same as Originating Activity	By NOTAM, 2 hr prior notification required	319
VR541	132 FW OG/CC (ANG), 3100 McKinley Ave, Des Moines, IA 50321-2799 DSN 256-8250 C5	Same as Originating Activity	By NOTAM, 2 hr prior notification required	289
VR544	114 FW (ANG), Joe Foss Field, Sioux Falls, SD 57104-0264 DSN 798-7754/7746, C605	Same as Originating Activity	By NOTAM, 2 hours and 15 minutes prior to entry time required	121
VR545	114 FW (ANG), Joe Foss Field, Sioux Falls, SD 57104-0264 DSN 798-7754/7746, C605	Same as Originating Activity	By NOTAM, 2 hours and 15 minutes prior to entry time required	121
VR552	184 ARW (Kansas ANG),McConnell AFB, KS 67221-9010 (1330-2215Z wkd, sked rqr 2 hr	Same as Originating Activity	Sunrise–Sunset Daily	191
VR604	148TH FIG (ANG), Duluth Intl, MN 55811 DSN 825-7265.	Same as Originating Activity	1400–0500Z++ daily, 0500–1400Z++ allowable	680
VR607	148TH FIG (ANG), Duluth Intl, MN 55811 DSN 825-7265.	Same as Originating Activity	1400–0500Z++ daily, 0500–1400Z++ allowable	680
VR615	183 FW/OSF, Capital Airport, Springfield, IL 62707 DSN 892-8202.	Same as Originating Activity	Daylight hours	168
VR619	181 TFG (ANG), Hulman Rigional Airport, Terre Haute, IN 47803 DSN 724-1234.	Same as Originating Activity	Sunrise–Sunset Tue–Sun, OT by NOTAM	136

* *Data fields are limited to 80 characters in the source database [National Geospatial-Intelligence Agency (Digital Aeronautical Flight Information File)]; therefore, some data field entries are not complete. Please refer to DoD Flight Information Publications for complete originating and scheduling activity information.*

** *Length calculations were performed using an the appropriate Universal Transverse Mercator zones.*

Source: Department of Defense based on data from the National Geospatial-Intelligence Agency (Digital Aeronautical Flight Information File, (effective: January 18, 2008 through Feburary 13, 2008).

Military Training Route Inventory

Military Training Route	Originating Agency*	Scheduling Agency*	Effective Times	Length (NM)**
VR634	Alpena CRTC/OTM (ANG), 5884 A. Street, Alpena, MI 49707-8125 DSN 741-3509/3226.	Same as Originating Activity	Continuous	180
VR664	Alpena CRTC/OTM (ANG), 5884 A. Street, Alpena, MI 49707-8125 DSN 741-3509/3226.	Same as Originating Activity	Continuous	181
VR704	DET 1, 193 SOG, 26139 Ammo Road, Annville, PA 17003-5180 C717-861-2475/2912 Toll	Same as Originating Activity	0800 local to Sunset daily	285
VR705	DET 1, 193 SOG, 26139 Ammo Road, Annville, PA 17003-5180 C717-861-2475/2912 Toll	Same as Originating Activity	0800 local–Sunset daily	214
VR707	DET 1, 193 SOG, 26139 Ammo Road, Annville, PA 17003-5180 C717-861-2475/2912 Toll	Same as Originating Activity	0800 local–Sunset daily	287
VR708	175 FG (ANG), Baltimore, MD 21220-2899 DSN 243-6375.	Same as Originating Activity	Sunrise–Sunset	126
VR724	174th FW, 6001 E. Molloy Rd, Syracuse, NY 13211-7099 DSN 489-9217.	174 FW, Det 1, Ft. Drum, NY 13608 DSN 772-5990/2835, C315-772-5990.	0800–Sunset daily, OT by NOTAM	141
VR725	174th FW, 6001 E. Molloy Rd, Syracuse, NY 13211-7099 DSN 489-9217.	174 FW, Det 1. Ft. Drum, NY 13608 DSN 772-5990/2835, C315-772-5990.	0800–Sunset daily, OT by NOTAM	114
VR840	104 FW, Barnes ANGB, Westfield, MA 01085-1482 DSN 698-1228/1229, C413-568-9151 e	Same as Originating Activity	0800 local–Sunset daily	175
VR841	104 FW, Barnes ANGB, Westfield, MA 01085-1482 DSN 698-1228/1229, C413-568-9151 e	Same as Originating Activity	0800 local–Sunset daily	97
VR842	104 FW, Barnes ANGB, Westfield, MA 01085-1482 DSN 698-1228/1229, C413-568-9151 e	Same as Originating Activity	0800 local–Sunset daily	87
VR931	611 AOG/CC, 9480 Pease Ave., Ste 102, Elmendorf AFB, AK 99506-2100 DSN 317-552-2	3 OSS/OSOS, Elmendorf AFB, AK 99506 DSN 317-552-2406, C907-552-2406.	Normal use 0800–2000 local Mon–Fri, Not available 2200–0700 local	67
VR932	611 AOG/CC, 9480 Pease Ave., Ste 102, Elmendorf AFB, AK 99506-2100 DSN 317-552-2	3 OSS/OSOS, Elmendorf AFB, AK 99506-2130 DSN 317-552-2406, C907-552-2406.	Normal use 0800–2000 local Mon–Fri, Not available 2200–0700 local	67
VR933	611 AOG/CC, 9480 Pease Ave., Ste 102, Elmendorf AFB, AK 99506-2100 DSN 317-552-2	3 OSS/OSOS, Elmendorf AFB, AK 99506-2130 DSN 317-552-2406, C907-552-2406.	Normal use 0800–2000 local Mon–Fri, Not available 2200–0700 local	206
VR934	611 AOG/CC, 9480 Pease Ave., Ste 102, Elmendorf AFB, AK 99506-2100 DSN 317-552-2	3 OSS/OSOS, Elmendorf AFB, AK 99506-2130 DSN 317-552-2406, C907-552-2406.	Normal use 0800–2000 local Mon–Fri, Not available 2200–0700 local	206
VR935	611 AOG/CC, 9480 Pease Ave., Ste 102, Elmendorf AFB, AK 99506-2100 DSN 317-552-2	353 CTS/JSO, Eielson AFB, AK 99702 DSN 317-377-3005, C907-377-3005.	Normal use 0800–2000 local Mon–Fri, Not available 2200–0700 local	230
VR936	611 AOG/CC, 9480 Pease Ave., Ste 102, Elmendorf AFB, AK 99506-2100 DSN 317-552-2	353 CTS/JSO, Eielson AFB, AK 99702 DSN 317-377-3005, C907-377-3005.	Normal use 0800–2000 local Mon–Fri, Not available 2200–0700 local	210

* *Data fields are limited to 80 characters in the source database [National Geospatial-Intelligence Agency (Digital Aeronautical Flight Information File)]; therefore, some data field entries are not complete. Please refer to DoD Flight Information Publications for complete originating and scheduling activity information.*

** *Length calculations were performed using an the appropriate Universal Transverse Mercator zones.*

Source: Department of Defense based on data from the National Geospatial-Intelligence Agency (Digital Aeronautical Flight Information File, (effective: January 18, 2008 through Feburary 13, 2008).

Military Training Route Inventory

Military Training Route	Originating Agency*	Scheduling Agency*	Effective Times	Length (NM)**
VR937	611 AOG/CC, 9480 Pease Ave., Ste 102, Elmendorf AFB, AK 99506-2100 DSN 317-552-2	353 CTS/JSO, Eielson AFB, AK 99702 DSN 317-377-3005, C907-377-3005.	Normal use 0800–2000 local Mon–Fri, Not available 2200–0700 local	210
VR938	611 AOG/CC, 9480 Pease Ave., Ste 102, Elmendorf AFB, AK 99506-2100 DSN 317-552-2	353 CTS/JSO, Eielson AFB, AK 99702 DSN 317-377-3005, C907-377-3005.	Normal use 0800–2000 local Mon–Fri, Not available 2200–0700 local	167
VR940	611 AOG/CC, 9480 Pease Ave., Ste 102, Elmendorf AFB, AK 99506-2100 DSN 317-552-2	353 CTS/JSO, Eielson AFB, AK 99702 DSN 317-377-3005, C907-377-3005.	Normal use 0800–2000 local Mon–Fri, Not available 2200–0700 local	106
VR941	611 AOG/CC, 9480 Pease Ave., Ste 102, Elmendorf AFB, AK 99506-2100 DSN 317-552-2	353 CTS/JSO, Eielson AFB, AK 99702 DSN 317-377-3005, C907-377-3005.	Normal use 0800–2000 local Mon–Fri, Not available 2200–0700 local	106
VR954	611 AOG/CC, 9480 Pease Ave., Ste 102, Elmendorf AFB, AK 99506-2100 DSN 317-552-2	353 CTS/JSO, Eielson AFB, AK 99702 DSN 317-377-3005, C907-377-3005.	Normal use 0800–2000 local Mon–Fri, Not available 2200–0700 local	371
VR955	611 AOG/CC, 9480 Pease Ave., Ste 102, Elmendorf AFB, AK 99506-2100 DSN 317-552-2	353 CTS/JSO, Eielson AFB, AK 99702 DSN 317-377-3005, C907-377-3005.	Normal use 0800–2000 local Mon–Fri, Not available 2200–0700 local	271

* *Data fields are limited to 80 characters in the source database (National Geospatial–Intelligence Agency (Digital Aeronautical Flight Information File)); therefore, some data field entries are not complete. Please refer to DoD Flight Information Publications for complete originating and scheduling activity information.*

** *Length calculations were performed using an the appropriate Universal Transverse Mercator zones.*

Source: Department of Defense based on data from the National Geospatial–Intelligence Agency (Digital Aeronautical Flight Information File, (effective: January 18, 2008 through Feburary 13, 2008).

Table C-3 Military Training Route (MTR) Inventory

Special Use Airspace Inventory

2007 SUA Name	Controlling Agency	Range Complex/ Installation Name	Upper Altitude	Lower Altitude	Military Service*	Area (nm^2)**
R4808N	FAA, LOS ANGELES ARTCC	Nellis AFB	UNLTD	SURFACE	DOE	1,280
R4808S	FAA, LOS ANGELES ARTCC	Nellis AFB	UNLTD	SURFACE	DOE	24
R4809	FAA, LOS ANGELES ARTCC	Nellis AFB	UNLTD	SURFACE	DOE	393
R4001A	FAA, WASHINGTON, DC ARTCC	Aberdeen Proving Ground	UNLTD	SURFACE	USA	105
R4001B	FAA, WASHINGTON, DC ARTCC	Aberdeen Proving Ground	010000AMSL	SURFACE	USA	28
R2101	FAA, ATLANTA ARTCC	Anniston Army Depot	005000AMSL	SURFACE	USA	2
R3203D	FAA, SALT LAKE CITY ARTCC	Boise	FL220	SURFACE	USA	23
R4101	FAA, CAPE APP	Camp Edwards	009000AMSL	SURFACE	USA	14
R4201A	FAA, MINNEAPOLIS ARTCC	Camp Grayling	FL230	SURFACE	USA	64
R4201B	FAA, MINNEAPOLIS ARTCC	Camp Grayling	009000AMSL	SURFACE	USA	41
R4202	FAA, MINNEAPOLIS ARTCC	Camp Grayling	008200AMSL	SURFACE	USA	5
R7001A	FAA, DENVER ARTCC	Camp Guernsey	007999AMSL	SURFACE	USA	46
R7001B	FAA, DENVER ARTCC	Camp Guernsey	023500AMSL	08000AMSL	USA	46
R7001C	FAA, DENVER ARTCC	Camp Guernsey	FL300	23500AMSL	USA	46
A685	FAA, ATLANTA ARTCC	Camp Merrill	000700AGL	SURFACE	USA	490
R4301	FAA, MINNEAPOLIS ARTCC	Camp Riley	FL270	SURFACE	USA	64
R2504	FAA, OAKLAND ARTCC	Camp Roberts	015000AMSL	SURFACE	USA	27
R2401A	FAA, MEMPHIS ARTCC	Chaffee	FL300	SURFACE	USA	16
R2401B	FAA, MEMPHIS ARTCC	Chaffee	FL300	SURFACE	USA	2
R2402	FAA, MEMPHIS ARTCC	Chaffee	FL300	SURFACE	USA	63
R4102A	FAA, BOSTON ARTCC	Devens Reserve Forces Training Area	001999AMSL	SURFACE	USA	6
R4102B	FAA, BOSTON ARTCC	Devens Reserve Forces Training Area	003995AMSL	02000AMSL	USA	6
R2310A	FAA, ALBUQUERQUE ARTCC	Florence Training Site	010000AMSL	SURFACE	USA	29
R2310B	FAA, ALBUQUERQUE ARTCC	Florence Training Site	017000AMSL	10000AMSL	USA	18
R2310C	FAA, ALBUQUERQUE ARTCC	Florence Training Site	FL350	17000AMSL	USA	15
HILL MOA, VA	FAA, POTOMAC APP	Fort A.P. Hill	003000AMSL	SURFACE	USA	36
R6601	FAA, RICHMOND TWR	Fort A.P. Hill	005000AMSL	SURFACE	USA	40
BENNING MOA, GA	FAA, COLUMBUS TWR	Fort Benning	008000AMSL	00500AGL	USA	107
R3002A	FAA, ATCT, COLUMBUS	Fort Benning	004000AMSL	SURFACE	USA	104
R3002B	FAA, ATCT, COLUMBUS	Fort Benning	008000AMSL	04000AMSL	USA	104
R3002C	FAA, ATCT, COLUMBUS	Fort Benning	014000AMSL	08000AMSL	USA	104
R3002D	FAA, ATCT, COLUMBUS	Fort Benning	008000AMSL	SURFACE	USA	79

Special Use Airspace Inventory

2007 SUA Name	Controlling Agency	Range Complex/ Installation Name	Upper Altitude	Lower Altitude	Military Service*	Area (nm^2)**
R3002E	FAA, ATCT, COLUMBUS	Fort Benning	014000AMSL	08000AMSL	USA	79
R3002F	FAA, ATLANTA ARTCC	Fort Benning	FL250	14000AMSL	USA	118
R3002G	FAA, ATLANTA TRACON	Fort Benning	004000AMSL	SURFACE	USA	14
R3004A	FAA, ATLANTA ARTCC	Fort Benning	007000AMSL	SURFACE	USA	31
R3004B	FAA, ATLANTA ARTCC	Fort Benning	016000AMSL	007001AMSL	USA	31
R5103(D)	FAA, ALBUQUERQUE ARTCC	Fort Bliss	UNLTD	01501AGL	USA	6
R5103(E)	FAA, ALBUQUERQUE ARTCC	Fort Bliss	UNLTD	01501AGL	USA	5
R5103A	FAA, ALBUQUERQUE ARTCC	Fort Bliss	018000AMSL	SURFACE	USA	43
R5103B	FAA, ALBUQUERQUE ARTCC	Fort Bliss	012500AMSL	SURFACE	USA	235
R5103C	FAA, ALBUQUERQUE ARTCC	Fort Bliss	UNLTD	SURFACE	USA	653
A531	USA, FORT BRAGG	Fort Bragg	001500AGL	00200AGL	USA	698
FORT BRAGG NORTH AREA A MOA, NC	FAA, FAYETTEVILLE TWR	Fort Bragg	006000AMSL	00500AGL	USA	42
FORT BRAGG NORTH AREA B MOA, NC	FAA, FAYETTEVILLE TWR	Fort Bragg	006000AMSL	04000AMSL	USA	30
FORT BRAGG SOUTH AREA A MOA, NC	FAA, FAYETTEVILLE TWR	Fort Bragg	006000AMSL	00500AGL	USA	53
FORT BRAGG SOUTH AREA B MOA, NC	FAA, FAYETTEVILLE TWR	Fort Bragg	006000AMSL	01500AGL	USA	36
R5311A	FAA, WASHINGTON, DC ARTCC	Fort Bragg	006999AMSL	SURFACE	USA	122
R5311B	FAA, WASHINGTON, DC ARTCC	Fort Bragg	011999AMSL	07000AMSL	USA	122
R5311C	FAA, WASHINGTON, DC ARTCC	Fort Bragg	028999AMSL	12000AMSL	USA	122
A371	USA, CAMPBELL AAF APP	Fort Campbell	002000AMSL	SURFACE	USA	1,193
CAMPBELL 1 MOA, KY	FAA, MEMPHIS ARTCC	Fort Campbell	010000AMSL	00500AGL	USA	396
CAMPBELL 2 MOA, KY	FAA, MEMPHIS ARTCC	Fort Campbell	010000AMSL	01500AGL	USA	311
R3701	USA, CAMPBELL AAF APP	Fort Campbell	005000AMSL	SURFACE	USA	8
R3702A	FAA, MEMPHIS ARTCC	Fort Campbell	006000AMSL	SURFACE	USA	93
R3702B	FAA, MEMPHIS ARTCC	Fort Campbell	FL220	06000AMSL	USA	93
R3702C	FAA, MEMPHIS ARTCC	Fort Campbell	FL270	FL220	USA	93
PINON CANYON MOA, CO	FAA, DENVER ARTCC	Fort Carson	010000AMSL	00100AGL	USA	1,031
R2601A	FAA, DENVER ARTCC	Fort Carson	012499AMSL	SURFACE	USA	123
R2601B	FAA, DENVER ARTCC	Fort Carson	022499AMSL	12500AMSL	USA	123
R2601C	FAA, DENVER ARTCC	Fort Carson	034999AMSL	22500AMSL	USA	123
R2601D	FAA, DENVER ARTCC	Fort Carson	059999AMSL	35000AMSL	USA	123
R5001A	FAA, NEW YORK ARTCC	Fort Dix	004000AMSL	SURFACE	USA	23
R5001B	FAA, NEW YORK ARTCC	Fort Dix	008000AMSL	04000AMSL	USA	21
DRUM 1 MOA, NY	USA, WHEELER SACK APP	Fort Drum	005000AMSL	00500AGL	USA	95

Special Use Airspace Inventory

2007 SUA Name	Controlling Agency	Range Complex/ Installation Name	Upper Altitude	Lower Altitude	Military Service*	Area (nm^2)**
DRUM 2 MOA, NY	USA, WHEELER SACK APP	Fort Drum	005999AMSL	00100AGL	USA	84
R5201	FAA, BOSTON ARTCC	Fort Drum	023000AMSL	SURFACE	USA	110
R2202A	FAA, ANCHORAGE ARTCC	Fort Greely	009999AMSL	SURFACE	USA	170
R2202B	FAA, ANCHORAGE ARTCC	Fort Greely	009999AMSL	SURFACE	USA	395
R2202C	FAA, ANCHORAGE ARTCC	Fort Greely	FL310	10000AMSL	USA	565
R2202D	FAA, ANCHORAGE ARTCC	Fort Greely	UNLTD	FL310	USA	566
GRAY MOA, TX	FAA, HOUSTON ARTCC	Fort Hood	010000AMSL	02000AMSL	USA	28
HOOD MOA, TX	FAA, HOUSTON ARTCC	Fort Hood	010000AMSL	02000AMSL	USA	267
R6302A	FAA, HOUSTON ARTCC	Fort Hood	FL300	SURFACE	USA	126
R6302B	FAA, HOUSTON ARTCC	Fort Hood	011000AMSL	SURFACE	USA	15
R6302C	FAA, HOUSTON ARTCC	Fort Hood	FL300	SURFACE	USA	40
R6302D	FAA, HOUSTON ARTCC	Fort Hood	FL300	SURFACE	USA	24
R6302E	FAA, HOUSTON ARTCC	Fort Hood	FL450	FL300	USA	121
R2303A	FAA, ALBUQUERQUE ARTCC	Fort Huachuca	015000AMSL	SURFACE	USA	266
R2303B	FAA, ALBUQUERQUE ARTCC	Fort Huachuca	FL300	08000AMSL	USA	495
R2303C	FAA, ALBUQUERQUE ARTCC	Fort Huachuca	FL300	15000AMSL	USA	233
R2513	FAA, OAKLAND ARTCC	Fort Hunter-Leggett	FL240	SURFACE	USA	114
R5802A	FAA, NEW YORK ARTCC	Fort Indiantown Gap	005000AMSL	00200AGL	USA	12
R5802B	FAA, NEW YORK ARTCC	Fort Indiantown Gap	013000AMSL	SURFACE	USA	14
R5802C	FAA, NEW YORK ARTCC	Fort Indiantown Gap	016999AMSL	00500AGL	USA	33
R5802D	FAA, NEW YORK ARTCC	Fort Indiantown Gap	021999AMSL	17000AMSL	USA	33
R5802E	FAA, NEW YORK ARTCC	Fort Indiantown Gap	FL250	FL220	USA	97
R2502E	FAA, HI-DESERT TRACON, EDWARDS AFB	Fort Irwin	UNLTD	SURFACE	USA	180
R2502N	FAA, HI-DESERT TRACON, EDWARDS AFB	Fort Irwin	UNLTD	SURFACE	USA	561
SILVER MOA NORTH, CA	FAA, LOS ANGELES ARTCC	Fort Irwin	009000AMSL	00200AGL	USA	360
SILVER MOA SOUTH, CA	FAA, LOS ANGELES ARTCC	Fort Irwin	007000AMSL	00200AGL	USA	19
R6001A	FAA, JACKSONVILLE ARTCC	Fort Jackson	003200AMSL	SURFACE	USA	38
R6001B	FAA, JACKSONVILLE ARTCC	Fort Jackson	FL230	03200AMSL	USA	40
R3704A	FAA, STANDIFORD TWR, LOUISVILLE	Fort Knox	010000AMSL	SURFACE	USA	113
R3704B	FAA, STANDIFORD TWR, LOUISVILLE	Fort Knox	FL220	10000AMSL	USA	113
R6602A	FAA, WASHINGTON, DC ARTCC	Fort Lee	003999AMSL	SURFACE	USA	36
R6602B	FAA, WASHINGTON, DC ARTCC	Fort Lee	010999AMSL	04000AMSL	USA	33
R6602C	FAA, WASHINGTON, DC ARTCC	Fort Lee	018000AMSL	11000AMSL	USA	33

Special Use Airspace Inventory

2007 SUA Name	Controlling Agency	Range Complex/ Installation Name	Upper Altitude	Lower Altitude	Military Service*	Area (nm²)**
R4501A	FAA, KANSAS CITY ARTCC	Fort Leonard Wood	002199AMSL	SURFACE	USA	21
R4501B(A)	FAA, KANSAS CITY ARTCC	Fort Leonard Wood	002200AMSL	SURFACE	USA	10
R4501B(B)	FAA, KANSAS CITY ARTCC	Fort Leonard Wood	001500AMSL	SURFACE	USA	0
R4501C	FAA, KANSAS CITY ARTCC	Fort Leonard Wood	005000AMSL	02200AMSL	USA	34
R4501D	FAA, KANSAS CITY ARTCC	Fort Leonard Wood	012000AMSL	05000AMSL	USA	34
R4501E	FAA, KANSAS CITY ARTCC	Fort Leonard Wood	FL180	12000AMSL	USA	34
R4501F	FAA, KANSAS CITY ARTCC	Fort Leonard Wood	003200AMSL	SURFACE	USA	4
R4501H	FAA, KANSAS CITY ARTCC	Fort Leonard Wood	003200AMSL	SURFACE	USA	15
RAINIER 1 MOA, WA	FAA, SEATTLE-TACOMA APP CON	Fort Leonard Wood	009000AMSL	02000AMSL	USA	27
RAINIER 2 MOA, WA	FAA, SEATTLE-TACOMA APP CON	Fort Leonard Wood	009000AMSL	02000AMSL	USA	49
RAINIER 3 MOA, WA	FAA, SEATTLE-TACOMA APP CON	Fort Leonard Wood	009000AMSL	02000AMSL	USA	15
R6714A	FAA, SEATTLE ARTCC	Fort Lewis	028999AMSL	SURFACE	USA	229
R6714B	FAA, SEATTLE ARTCC	Fort Lewis	028999AMSL	SURFACE	USA	25
R6714C	FAA, SEATTLE ARTCC	Fort Lewis	028999AMSL	SURFACE	USA	30
R6714D	FAA, SEATTLE ARTCC	Fort Lewis	028999AMSL	SURFACE	USA	4
R6714F	FAA, SEATTLE ARTCC	Fort Lewis	028999AMSL	SURFACE	USA	14
R6714G	FAA, SEATTLE ARTCC	Fort Lewis	028999AMSL	SURFACE	USA	21
R6714H	FAA, SEATTLE ARTCC	Fort Lewis	005499AMSL	SURFACE	USA	26
R2102A	FAA, ATLANTA ARTCC	Fort McClellan	008000AMSL	SURFACE	USA	27
R2102B	FAA, ATLANTA ARTCC	Fort McClellan	014000AMSL	08000AMSL	USA	27
R2102C	FAA, ATLANTA ARTCC	Fort McClellan	FL240	14000AMSL	USA	27
R6901A	FAA, MINNEAPOLIS ARTCC	Fort McCoy	FL200	SURFACE	USA	46
R6901B	FAA, MINNEAPOLIS ARTCC	Fort McCoy	FL200	SURFACE	USA	21
PICKETT 1 MOA, VA	FAA, WASHINGTON, DC ARTCC	Fort Pickett	006000AMSL	00500AGL	USA	45
PICKETT 2 MOA, VA	FAA, WASHINGTON, DC ARTCC	Fort Pickett	010000AMSL	00500AGL	USA	93
PICKETT 3 MOA, VA	FAA, WASHINGTON, DC ARTCC	Fort Pickett	010000AMSL	04000AMSL	USA	23
R3803A	FAA, HOUSTON ARTCC	Fort Polk	FL180	SURFACE	USA	41
R3803B	FAA, HOUSTON ARTCC	Fort Polk	034999AMSL	FL180	USA	41
R3804A	FAA, HOUSTON ARTCC	Fort Polk	FL180	SURFACE	USA	100
R3804B	FAA, HOUSTON ARTCC	Fort Polk	003000AMSL	SURFACE	USA	14
R3804C	FAA, HOUSTON ARTCC	Fort Polk	034999AMSL	FL180	USA	100
WARRIOR 1 HIGH MOA, LA	FAA, HOUSTON ARTCC	Fort Polk	018000AMSL	10000AMSL	USA	1,599
WARRIOR 1 LOW MOA, LA	FAA, HOUSTON ARTCC	Fort Polk	009999AMSL	00100AGL	USA	1,599

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WARRIOR 2 HIGH MOA, LA	FAA, HOUSTON ARTCC	Fort Polk	018000AMSL	10000AMSL	USA	885
WARRIOR 2 LOW MOA, LA	FAA, HOUSTON ARTCC	Fort Polk	009999AMSL	00100AGL	USA	885
WARRIOR 3 HIGH MOA, LA	FAA, HOUSTON ARTCC	Fort Polk	018000AMSL	10000AMSL	USA	1,009
WARRIOR 3 LOW MOA, LA	FAA, HOUSTON ARTCC	Fort Polk	009999AMSL	00100AGL	USA	1,009
R2203A	FAA, ANCHORAGE TWR	Fort Richardson	011000AMSL	SURFACE	USA	6
R2203B	FAA, ANCHORAGE TWR	Fort Richardson	011000AMSL	SURFACE	USA	20
R2203C	FAA, ANCHORAGE TWR	Fort Richardson	005000AMSL	SURFACE	USA	1
R2205	FAA, FAIRBANKS APP	Fort Richardson	020000AMSL	SURFACE	USA	137
R3602A	FAA, KANSAS CITY ARTCC	Fort Riley	FL290	SURFACE	USA	49
R3602B	FAA, KANSAS CITY ARTCC	Fort Riley	FL290	SURFACE	USA	59
RILEY MOA, KS	CO, 24 Infantry Div	Fort Riley	FL180	07000AMSL	USA	325
A211	USA, CAIRNES APP	Fort Rucker	005000AMSL	SURFACE	USA	4,580
R2103A	USA, CAIRNS APP	Fort Rucker	009999AMSL	SURFACE	USA	50
R2103B	FAA, JACKSONVILLE ARTCC	Fort Rucker	015000AMSL	10000AMSL	USA	50
R5601A	FAA, FORT WORTH ARTCC	Fort Sill	FL400	SURFACE	USA	34
R5601B	FAA, FORT WORTH ARTCC	Fort Sill	FL400	SURFACE	USA	55
R5601C	FAA, FORT WORTH ARTCC	Fort Sill	FL400	SURFACE	USA	18
R5601D	FAA, FORT WORTH ARTCC	Fort Sill	FL400	00500AGL	USA	36
R5601E	FAA, FORT WORTH ARTCC	Fort Sill	006000AMSL	00500AGL	USA	9
HOG HIGH NORTH MOA, AR	FAA, MEMPHIS ARTCC	Fort Smith	018000AMSL	06000AMSL	USA	685
HOG HIGH SOUTH MOA, AR	FAA, MEMPHIS ARTCC	Fort Smith	018000AMSL	06000AMSL	USA	1,295
HOG JRTC MOA, AR	FAA, MEMPHIS ARTCC	Fort Smith	018000AMSL	00100AGL	USA	25
HOG LOW NORTH MOA, AR	FAA, MEMPHIS ARTCC	Fort Smith	005999AMSL	00100AGL	USA	685
HOG LOW SOUTH MOA, AR	FAA, MEMPHIS ARTCC	Fort Smith	005999AMSL	00100AGL	USA	817
SHIRLEY 1 MOA, AR	FAA, MEMPHIS ARTCC	Fort Smith	018000AMSL	10000AMSL	USA	3,069
FORT STEWART B1 MOA, GA	FAA, JACKSONVILLE ARTCC	Fort Stewart	004999AMSL	00500AGL	USA	146
FORT STEWART B2 MOA, GA	FAA, JACKSONVILLE ARTCC	Fort Stewart	010000AMSL	05000AMSL	USA	146
FORT STEWART C1 MOA, GA	FAA, JACKSONVILLE ARTCC	Fort Stewart	002999AMSL	00500AGL	USA	31
FORT STEWART C2 MOA, GA	FAA, JACKSONVILLE ARTCC	Fort Stewart	010000AMSL	03000AMSL	USA	70
R3005A	FAA, JACKSONVILLE ARTCC	Fort Stewart	FL290	SURFACE	USA	71
R3005B	FAA, JACKSONVILLE ARTCC	Fort Stewart	FL290	SURFACE	USA	46
R3005C	FAA, JACKSONVILLE ARTCC	Fort Stewart	FL290	SURFACE	USA	107
R3005D	FAA, JACKSONVILLE ARTCC	Fort Stewart	FL290	SURFACE	USA	50

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R3005E	FAA, JACKSONVILLE ARTCC	Fort Stewart	FL290	SURFACE	USA	35
R4811	FAA, OAKLAND ARTCC	Hawthorne Army Ammunition Plant	015000AMSL	SURFACE	USA	7
R3401A	FAA, INDIANAPOLIS ARTCC	Indianapolis	FL400	SURFACE	USA	43
R3401B	FAA, INDIANAPOLIS ARTCC	Indianapolis	014000AMSL	01200AGL	USA	35
R3403A	FAA, INDIANAPOLIS ARTCC	Indianapolis	FL430	SURFACE	USA	53
R3403B	FAA, INDIANAPOLIS ARTCC	Indianapolis	FL180	01200AGL	USA	27
R5801	FAA, WASHINGTON, DC ARTCC	Letterkenny Ordnance Depot	004000AMSL	SURFACE	USA	2
R5803	FAA, WASHINGTON, DC ARTCC	Letterkenny Ordnance Depot	004000AMSL	SURFACE	USA	3
R2302	FAA, ALBUQUERQUE ARTCC	Navajo Ordnance Depot	010000AMSL	SURFACE	USA	4
R3103	FAA, HONOLULU CERAP	Pohakuloa Training Area	030000AMSL	SURFACE	USA	124
R2104A	FAA, MEMPHIS ARTCC	Redstone Arsenal	012000AMSL	SURFACE	USA	17
R2104B	FAA, MEMPHIS ARTCC	Redstone Arsenal	002400AMSL	SURFACE	USA	4
R2104C	FAA, MEMPHIS ARTCC	Redstone Arsenal	012000AMSL	SURFACE	USA	4
R2104D	FAA, MEMPHIS ARTCC	Redstone Arsenal	FL300	12000AMSL	USA	17
R2104E	FAA, MEMPHIS ARTCC	Redstone Arsenal	FL300	12000AMSL	USA	4
A311	FAA, HONOLULU CERAP	Schofield, Kahuku, Kawailoa	000500AGL	SURFACE	USA	71
R3109A	FAA, HONOLULU TWR	Schofield-Makua	008999AMSL	SURFACE	USA	9
R3109B	FAA, HONOLULU TWR	Schofield-Makua	018999AMSL	09000AMSL	USA	15
R3109C	FAA, HONOLULU TWR	Schofield-Makua	008999AMSL	SURFACE	USA	6
R3110A	FAA, HONOLULU TWR	Schofield-Makua	008999AMSL	SURFACE	USA	11
R3110B	FAA, HONOLULU TWR	Schofield-Makua	018999AMSL	09000AMSL	USA	21
R3110C	FAA, HONOLULU TWR	Schofield-Makua	008999AMSL	SURFACE	USA	10
R2530	FAA, OAKLAND ARTCC	Sierra Army Deport	008600AMSL	SURFACE	USA	4
LAKE ANDES MOA, SD	FAA, MINNEAPOLIS ARTCC	Sioux Falls	018000AMSL	06000AMSL	USA	3,498
HOWARD EAST MOA, IL	FAA, KANSAS CITY ARTCC	Springfield	018000AMSL	09000AMSL	USA	1,853
HOWARD WEST MOA, IL	FAA, KANSAS CITY ARTCC	Springfield	018000AMSL	10000AMSL	USA	322
PRUITT A MOA, IL	FAA, KANSAS CITY ARTCC	Springfield	006000AMSL	00500AGL	USA	980
PRUITT B MOA, IL	FAA, KANSAS CITY ARTCC	Springfield	003000AMSL	00500AGL	USA	426
R6403	FAA, SALT LAKE CITY ARTCC	Tooele Army Depot	009000AMSL	SURFACE	USA	2
R5206	FAA, NEW YORK APP	West Point	005000AMSL	SURFACE	USA	4
R5107A	FAA, ALBUQUERQUE ARTCC	White Sands Missile Range	UNLTD	SURFACE	USA	281
R5107B	FAA, ALBUQUERQUE ARTCC	White Sands Missile Range	UNLTD	SURFACE	USA	3,140
R5107C	FAA, ALBUQUERQUE ARTCC	White Sands Missile Range	UNLTD	09000AMSL	USA	892

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R5107D	FAA, ALBUQUERQUE ARTCC	White Sands Missile Range	022000AMSL	SURFACE	USA	551
R5107E	FAA, ALBUQUERQUE ARTCC	White Sands Missile Range	UNLTD	SURFACE	USA	127
R5107F	FAA, ALBUQUERQUE ARTCC	White Sands Missile Range	FL450	FL240	USA	1,195
R5107G	FAA, ALBUQUERQUE ARTCC	White Sands Missile Range	FL450	FL240	USA	957
R5107H	FAA, ALBUQUERQUE ARTCC	White Sands Missile Range	009000AMSL	SURFACE	USA	814
R5107J	FAA, ALBUQUERQUE ARTCC	White Sands Missile Range	009000AMSL	SURFACE	USA	77
R5109A	FAA, ALBUQUERQUE ARTCC	White Sands Missile Range	UNLTD	24000AMSL	USA	1,682
R5109B	FAA, ALBUQUERQUE ARTCC	White Sands Missile Range	UNLTD	24000AMSL	USA	1,004
R5111A	FAA, ALBUQUERQUE ARTCC	White Sands Missile Range	UNLTD	13000AMSL	USA	404
R5111B	FAA, ALBUQUERQUE ARTCC	White Sands Missile Range	013000AMSL	SURFACE	USA	404
R5111C	FAA, ALBUQUERQUE ARTCC	White Sands Missile Range	UNLTD	13000AMSL	USA	318
R5111D	FAA, ALBUQUERQUE ARTCC	White Sands Missile Range	012999AMSL	SURFACE	USA	318
R5117	FAA, ALBUQUERQUE ARTCC	White Sands Missile Range	UNLTD	SURFACE	USA	22
R5119	FAA, ALBUQUERQUE ARTCC	White Sands Missile Range	UNLTD	FL350	USA	393
R5121	FAA, ALBUQUERQUE ARTCC	White Sands Missile Range	UNLTD	FL200	USA	38
R5123	FAA, ALBUQUERQUE ARTCC	White Sands Missile Range	UNLTD	SURFACE	USA	152
R6714E	FAA, SEATTLE ARTCC	Yakima	054999AMSL	29000AMSL	USA	319
R2306A	FAA, LOS ANGELES ARTCC	Yuma Proving Ground	FL800	SURFACE	USA	208
R2306B	FAA, LOS ANGELES ARTCC	Yuma Proving Ground	FL800	SURFACE	USA	165
R2306C	FAA, LOS ANGELES ARTCC	Yuma Proving Ground	FL400	SURFACE	USA	37
R2306D	FAA, LOS ANGELES ARTCC	Yuma Proving Ground	FL230	SURFACE	USA	15
R2306E	FAA, LOS ANGELES ARTCC	Yuma Proving Ground	FL800	SURFACE	USA	65
R2307	FAA, LOS ANGELES ARTCC	Yuma Proving Ground	UNLTD	SURFACE	USA	292
R2308A	FAA, LOS ANGELES ARTCC	Yuma Proving Ground	FL800	01500AGL	USA	552
R2308B	FAA, LOS ANGELES ARTCC	Yuma Proving Ground	FL800	SURFACE	USA	77
R2308C	FAA, LOS ANGELES ARTCC	Yuma Proving Ground	FL230	01500AGL	USA	29
R2311	YUMA APP, YUMA MCAS	Yuma Proving Ground	003500AMSL	SURFACE	USA	62
RACER A MOA, IN	HQ IN ANG Det 1	Camp Atterbury	004000AMSL	00500AGL	USA(ARNG)	130
RACER B MOA, IN	HQ IN ANG, Det 1, CAMP ATTERBURY, IN	Camp Atterbury	008000AMSL	04000AMSL	USA(ARNG)	130
RACER C MOA, IN	HQ IN ANG, Det 1, CAMP ATTERBURY, IN	Camp Atterbury	018000AMSL	00500AGL	USA(ARNG)	36
R5401	FAA, MINNEAPOLIS ARTCC	Camp Grafton	005000AMSL	SURFACE	USA(ARNG)	3
R4401A	FAA, HOUSTON ARTCC	Camp Shelby	004000AMSL	SURFACE	USA(ARNG)	87
R4401B	FAA, HOUSTON ARTCC	Camp Shelby	018000AMSL	04000AMSL	USA(ARNG)	87

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R4401C	FAA, HOUSTON ARTCC	Camp Shelby	FL290	18000AMSL	USA(ARNG)	87
R6412A	FAA, SALT LAKE CITY TRACON	Camp Williams	009000AMSL	SURFACE	USA(ARNG)	18
R6412B	FAA, SALT LAKE CITY TRACON	Camp Williams	010000AMSL	09000AMSL	USA(ARNG)	18
R6412C	FAA, SALT LAKE CITY TRACON	Camp Williams	009000AMSL	SURFACE	USA(ARNG)	13
R6412D	FAA, SALT LAKE CITY TRACON	Camp Williams	010000AMSL	09000AMSL	USA(ARNG)	13
R2206	FAA, ANCHORAGE ARTCC	13th Missile Wing	008800AMSL	SURFACE	USAF	10
R2901A	FAA, MIAMI ARTCC	Avon Park	014000AMSL	SURFACE	USAF	166
R2901B	FAA, MIAMI ARTCC	Avon Park	FL180	14000AMSL	USAF	145
R2901C	FAA, MIAMI ARTCC	Avon Park	014000AMSL	SURFACE	USAF	25
R2901D	FAA, MIAMI ARTCC	Avon Park	004000AMSL	00500AMSL	USAF	28
R2901E	FAA, MIAMI ARTCC	Avon Park	004000AMSL	01000AMSL	USAF	90
R2901F	FAA, MIAMI ARTCC	Avon Park	005000AMSL	04000AMSL	USAF	15
R2901G	FAA, MIAMI ARTCC	Avon Park	005000AMSL	SURFACE	USAF	27
R2901H	FAA, MIAMI ARTCC	Avon Park	004000AMSL	01000AMSL	USAF	32
R2901I	FAA, MIAMI ARTCC	Avon Park	004000AMSL	01500AMSL	USAF	31
ANNE HIGH MOA, AR	FAA, FORT WORTH ARTCC	Barksdale AFB	018000AMSL	07000AMSL	USAF	683
ANNE LOW MOA, AR	FAA, FORT WORTH ARTCC	Barksdale AFB	006999AMSL	00100AGL	USAF	683
HACKETT MOA, LA	FAA, FORT WORTH ARTCC	Barksdale AFB	018000AMSL	07000AMSL	USAF	1235
JENA 1 MOA, LA	FAA, HOUSTON ARTCC	Barksdale AFB	005000AMSL	00100AGL	USAF	1075
R3801A	FAA, HOUSTON ARTCC	Barksdale AFB	010000AMSL	SURFACE	USAF	101
R3801B	FAA, HOUSTON ARTCC	Barksdale AFB	FL180	10000AMSL	USAF	101
R3801C	FAA, HOUSTON ARTCC	Barksdale AFB	FL230	FL180	USAF	101
R4105A	FAA, CAPE APP	Barnes ANGB	009999AMSL	SURFACE	USAF	28
R4105B	FAA, CAPE APP	Barnes ANGB	018000AMSL	10000AMSL	USAF	28
FUZZY MOA, AZ	FAA, ALBUQUERQUE ARTCC	Barry M. Goldwater Range	009999AMSL	00100AGL	USAF	444
CHINA MOA, CA	FAA, OAKLAND ARTCC	Beale AFB	018000AMSL	03000AGL	USAF	625
MAXWELL 1 MOA, CA	FAA, OAKLAND ARTCC	Beale AFB	018000AMSL	11000AMSL	USAF	877
MAXWELL 2 MOA, CA	FAA, OAKLAND ARTCC	Beale AFB	018000AMSL	11000AMSL	USAF	926
MAXWELL 3 MOA, CA	FAA, OAKLAND ARTCC	Beale AFB	018000AMSL	11000AMSL	USAF	926
WHITMORE 1 MOA, CA	FAA, OAKLAND ARTCC	Beale AFB	018000AMSL	11000AMSL	USAF	584
WHITMORE 2 MOA, CA	FAA, OAKLAND ARTCC	Beale AFB	018000AMSL	11000AMSL	USAF	618
WHITMORE 3 MOA, CA	FAA, OAKLAND ARTCC	Beale AFB	018000AMSL	11000AMSL	USAF	618
BRONCO 1 MOA, TX	FAA, FORT WORTH ARTCC	Cannon AFB	018000AMSL	08000AMSL	USAF	1041

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BRONCO 2 MOA, TX	FAA, FORT WORTH ARTCC	Cannon AFB	018000AMSL	10000AMSL	USAF	609
BRONCO 3 MOA, TX	FAA, FORT WORTH ARTCC	Cannon AFB	018000AMSL	10000AMSL	USAF	1,739
BRONCO 4 MOA, TX	FAA, FORT WORTH ARTCC	Cannon AFB	018000AMSL	10000AMSL	USAF	1,764
MT DORA EAST HIGH MOA, NM	FAA, ALBUQUERQUE ARTCC	Cannon AFB	018000AMSL	11000AMSL	USAF	1,163
MT DORA EAST LOW MOA, NM	FAA, ALBUQUERQUE ARTCC	Cannon AFB	010999AMSL	01500AGL	USAF	1,163
MT DORA NORTH HIGH MOA, NM	FAA, ALBUQUERQUE ARTCC	Cannon AFB	018000AMSL	11000AMSL	USAF	1,264
MT DORA NORTH LOW MOA, NM	FAA, ALBUQUERQUE ARTCC	Cannon AFB	010999AMSL	01500AGL	USAF	1,264
MT DORA WEST HIGH MOA, NM	FAA, ALBUQUERQUE ARTCC	Cannon AFB	018000AMSL	11000AMSL	USAF	1,607
MT DORA WEST LOW MOA, NM	FAA, ALBUQUERQUE ARTCC	Cannon AFB	010999AMSL	01500AGL	USAF	1,607
PECOS NORTH HIGH MOA, NM	FAA, ALBUQUERQUE ARTCC	Cannon AFB	018000AMSL	11000AMSL	USAF	1,241
PECOS NORTH LOW MOA, NM	FAA, ALBUQUERQUE ARTCC	Cannon AFB	010999AMSL	00500AGL	USAF	1,039
PECOS SOUTH HIGH MOA, NM	FAA, ALBUQUERQUE ARTCC	Cannon AFB	018000AMSL	11000AMSL	USAF	1,329
PECOS SOUTH LOW MOA, NM	FAA, ALBUQUERQUE ARTCC	Cannon AFB	010999AMSL	00500AGL	USAF	951
R5104A	FAA, ALBUQUERQUE ARTCC	Cannon AFB	018000AMSL	SURFACE	USAF	209
R5104B	FAA, ALBUQUERQUE ARTCC	Cannon AFB	023000AMSL	18000AMSL	USAF	209
R5105	FAA, ALBUQUERQUE ARTCC	Cannon AFB	010000AMSL	SURFACE	USAF	139
TAIBAN MOA, NM	FAA, ALBUQUERQUE ARTCC	Cannon AFB	010999AMSL	00500AGL	USAF	235
R2932	FAA, MIAMI ARTCC	Cape Canaveral Range Complex	004999AMSL	SURFACE	USAF	115
R2933	FAA, MIAMI ARTCC	Cape Canaveral Range Complex	UNLTD	05000AMSL	USAF	115
R2934	FAA, MIAMI ARTCC	Cape Canaveral Range Complex	UNLTD	SURFACE	USAF	169
R2935	FAA, MIAMI ARTCC	Cape Canaveral Range Complex	UNLTD	11000AMSL	USAF	404
CLAIBORNE A MOA, LA	USA, POLK APP CON	Claiborne	009999AMSL	00100AGL	USAF	80
CLAIBORNE B MOA, LA	USA, POLK APP CON	Claiborne	018000AMSL	10000AMSL	USAF	80
R2602	FAA, DENVER ARTCC	Colorado Springs Training Site	SURFACE	01000AGL	USAF	1
A440	USAF, 14 FTW COLUMBUS AFB	Columbus AFB	006500AMSL	SURFACE	USAF	217
COLUMBUS 1 MOA, MS	FAA, MEMPHIS ARTCC	Columbus AFB	018000AMSL	08000AMSL	USAF	2,707
COLUMBUS 2 MOA, MS	FAA, MEMPHIS ARTCC	Columbus AFB	018000AMSL	08000AMSL	USAF	643
COLUMBUS 3 MOA, MS	FAA, MEMPHIS ARTCC	Columbus AFB	018000AMSL	08000AMSL	USAF	2,664
COLUMBUS 4 MOA, MS	FAA, MEMPHIS ARTCC	Columbus AFB	018000AMSL	10000AMSL	USAF	1,376
TOMBSTONE A MOA, AZ	FAA, ALBUQUERQUE ARTCC	David-Monthan AFB	014499AMSL	00500AGL	USAF	520
TOMBSTONE B MOA, AZ	FAA, ALBUQUERQUE ARTCC	David-Monthan AFB	014499AMSL	00500AGL	USAF	1,299
TOMBSTONE C MOA, AZ	FAA, ALBUQUERQUE ARTCC	David-Monthan AFB	018000AMSL	14500AMSL	USAF	3,002
LANCER MOA, TX	FAA, FORT WORTH ARTCC	Dyess AFB	018000AMSL	06200AMSL	USAF	3,225

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BAKERSFIELD MOA, CA	FAA, LOS ANGLES ARTCC	Edwards AFB	018000AMSL	02000AGL	USAF	301
BARSTOW MOA, CA	FAA, HI-DESERT TRACON, EDWARDS, CA	Edwards AFB	018000AMSL	00200AGL	USAF	162
BISHOP MOA, CA	FAA, LOS ANGLES ARTCC	Edwards AFB	018000AMSL	00200AGL	USAF	128
BUCKHORN MOA, CA	FAA, LOS ANGELES ARTCC	Edwards AFB	018000AMSL	00200AGL	USAF	58
ISABELLA MOA, CA	FAA, HI-DESERT TRACON, EDWARDS AFB	Edwards AFB	018000AMSL	00200AGL	USAF	2,684
OWENS MOA, CA	FAA, HI-DESERT TRACON, EDWARDS AFB	Edwards AFB	018000AMSL	00200AGL	USAF	2,014
PANAMINT MOA, CA	FAA, HI-DESERT TRACON, EDWARDS AFB	Edwards AFB	018000AMSL	03001AGL	USAF	2,051
PORTERVILLE MOA, CA	FAA, LOS ANGELES ARTCC	Edwards AFB	018000AMSL	02000AGL	USAF	465
POWDER RIVER A MOA, MT	FAA, SALT LAKE CITY ARTCC	Edwards AFB	018000AMSL	SURFACE	USAF	3,047
POWDER RIVER B MOA, WY	FAA, DENVER ARTCC	Edwards AFB	018000AMSL	01000AGL	USAF	1,385
R2515	FAA, HI-DESERT TRACON, EDWARDS AFB	Edwards AFB	UNLTD	SURFACE	USAF	1,368
SALINE MOA, CA	FAA, HI-DESERT TRACON, EDWARDS AFB	Edwards AFB	018000AMSL	00200AGL	USAF	1,690
EGLIN A EAST MOA, FL	FAA, JACKSONVILLE ARTCC	Eglin AFB	018000AMSL	01000AGL	USAF	98
EGLIN A WEST MOA, FL	FAA, JACKSONVILLE ARTCC	Eglin AFB	018000AMSL	01000AGL	USAF	90
EGLIN B MOA, FL	FAA, JACKSONVILLE ARTCC	Eglin AFB	018000AMSL	01000AGL	USAF	222
EGLIN C MOA, FL	FAA, JACKSONVILLE ARTCC	Eglin AFB	018000AMSL	01000AGL	USAF	144
EGLIN D MOA, FL	FAA, JACKSONVILLE ARTCC	Eglin AFB	003000AMSL	01000AGL	USAF	133
EGLIN E MOA, FL	FAA, JACKSONVILLE ARTCC	Eglin AFB	018000AMSL	SURFACE	USAF	1,143
EGLIN F MOA, FL	FAA, JACKSONVILLE ARTCC	Eglin AFB	018000AMSL	SURFACE	USAF	5
R2914A	FAA, JACKSONVILLE ARTCC	Eglin AFB	UNLTD	SURFACE	USAF	387
R2914B	FAA, JACKSONVILLE ARTCC	Eglin AFB	UNLTD	08500AMSL	USAF	71
R2915A	FAA, JACKSONVILLE ARTCC	Eglin AFB	UNLTD	SURFACE	USAF	208
R2915B	FAA, JACKSONVILLE ARTCC	Eglin AFB	UNLTD	SURFACE	USAF	46
R2915C	FAA, JACKSONVILLE ARTCC	Eglin AFB	UNLTD	08500AMSL	USAF	34
R2917	USAF, EGLIN AFB APP	Eglin AFB	022999AMSL	SURFACE	USAF	20
R2918	FAA, JACKSONVILLE ARTCC	Eglin AFB	UNLTD	SURFACE	USAF	16
R2919A	FAA, JACKSONVILLE ARTCC	Eglin AFB	UNLTD	SURFACE	USAF	48
R2919B	FAA, JACKSONVILLE ARTCC	Eglin AFB	UNLTD	08500AMSL	USAF	84
ROSE HILL MOA, AL	FAA, JACKSONVILLE ARTCC	Eglin AFB	018000AMSL	08000AMSL	USAF	649
W151A	FAA, JACKSONVILLE ARTCC	Eglin AFB	UNLTD	SURFACE	USAF	2,555
W151B	FAA, JACKSONVILLE ARTCC	Eglin AFB	UNLTD	SURFACE	USAF	2,521
W151C	FAA, JACKSONVILLE ARTCC	Eglin AFB	UNLTD	SURFACE	USAF	1,728
W151D	FAA, JACKSONVILLE ARTCC	Eglin AFB	UNLTD	SURFACE	USAF	2,113

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W151E	FAA, JACKSONVILLE ARTCC	Eglin AFB	UNLTD	SURFACE	USAF	531
W151F	FAA, JACKSONVILLE ARTCC	Eglin AFB	UNLTD	SURFACE	USAF	810
W470A	FAA, JACKSONVILLE ARTCC	Eglin AFB	UNLTD	SURFACE	USAF	2,022
W470B	FAA, JACKSONVILLE ARTCC	Eglin AFB	UNLTD	SURFACE	USAF	2,128
W470C	FAA, JACKSONVILLE ARTCC	Eglin AFB	UNLTD	SURFACE	USAF	1,147
W470D	FAA, JACKSONVILLE ARTCC	Eglin AFB	UNLTD	SURFACE	USAF	422
W470E	FAA, MIAMI ARTCC	Eglin AFB	UNLTD	SURFACE	USAF	1,011
W470F	FAA, JACKSONVILLE ARTCC	Eglin AFB	UNLTD	SURFACE	USAF	263
BIRCH MOA, AK	FAA, ANCHORAGE ARTCC	Eielson AFB	005000AMSL	00500AGL	USAF	424
BUFFALO MOA, AK	FAA, ANCHORAGE ARTCC	Eielson AFB	006999AMSL	00300AGL	USAF	1,648
EIELSON MOA, AK	FAA, ANCHORAGE ARTCC	Eielson AFB	018000AMSL	00100AGL	USAF	720
FOX 1 MOA, AK	FAA, ANCHORAGE ARTCC	Eielson AFB	018000AMSL	05000AGL	USAF	1,132
FOX 2 MOA, AK	FAA, ANCHORAGE ARTCC	Eielson AFB	018000AMSL	07000AMSL	USAF	94
FOX 3 MOA, AK	FAA, ANCHORAGE ARTCC	Eielson AFB	018000AMSL	05000AMSL	USAF	3,705
R2211	FAA, ANCHORAGE ARTCC	Eielson AFB	FL310	SURFACE	USAF	134
VIPER A MOA, AK	FAA, FAIRBANKS TWR	Eielson AFB	010000AMSL	00500AGL	USAF	105
VIPER B MOA, AK	FAA, ANCHORAGE ARTCC	Eielson AFB	018000AMSL	10000AMSL	USAF	105
YUKON 1 MOA, AK	FAA, ANCHORAGE ARTCC	Eielson AFB	018000AMSL	00100AGL	USAF	3,747
YUKON 2 MOA, AK	FAA, ANCHORAGE ARTCC	Eielson AFB	018000AMSL	00100AGL	USAF	4,929
YUKON 3 HIGH MOA, AK	FAA, ANCHORAGE ARTCC	Eielson AFB	018000AMSL	10000AMSL	USAF	2,267
YUKON 3A LOW MOA, AK	FAA, ANCHORAGE ARTCC	Eielson AFB	009999AMSL	00100AGL	USAF	2,267
YUKON 3B MOA, AK	FAA, ANCHORAGE ARTCC	Eielson AFB	018000AMSL	02000AGL	USAF	1,523
YUKON 4 MOA, AK	FAA, ANCHORAGE ARTCC	Eielson AFB	018000AMSL	00100AGL	USAF	3,355
YUKON 5 MOA, AK	FAA, ANCHORAGE ARTCC	Eielson AFB	018000AMSL	05000AGL	USAF	2,707
W147A	FAA, HOUSTON ARTCC	Ellington Field	022999AMSL	05000AMSL	USAF	4,484
W147B	FAA, HOUSTON ARTCC	Ellington Field	FL500	FL230	USAF	4,484
W147D	FAA, HOUSTON ARTCC	Ellington Field	FL500	SURFACE	USAF	5,469
W147E	FAA, HOUSTON ARTCC	Ellington Field	FL500	FL260	USAF	1,923
GALENA MOA, AK	FAA, ANCHORAGE ARTCC	Elmendorf AFB	018000AMSL	01000AMSL	USAF	3,910
NAKNEK 1 MOA, AK	FAA, ANCHORAGE ARTCC	Elmendorf AFB	018000AMSL	03000AGL	USAF	3,894
NAKNEK 2 MOA, AK	FAA, ANCHORAGE ARTCC	Elmendorf AFB	018000AMSL	03000AGL	USAF	2,758
STONY A MOA, AK	FAA, ANCHORAGE ARTCC	Elmendorf AFB	018000AMSL	00100AGL	USAF	4,068
STONY B MOA, AK	FAA, ANCHORAGE ARTCC	Elmendorf AFB	018000AMSL	02000AGL	USAF	2,393

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SUSITNA MOA, AK	FAA, ANCHORAGE ARTCC	Elmendorf AFB	018000AMSL	10000AMSL	USAF	2,474
W612	FAA, ANCHORAGE ARTCC	Elmendorf AFB	FL290	SURFACE	USAF	2,556
GANDY MOA, UT	FAA, SALT LAKE CITY ARTCC	Hill AFB	018000AMSL	00100AGL	USAF	832
LUCIN A MOA, UT	FAA, SALT LAKE CITY ARTCC	Hill AFB	009000AMSL	00100AGL	USAF	1,532
LUCIN B MOA, UT	FAA, SALT LAKE CITY ARTCC	Hill AFB	007500AMSL	00100AGL	USAF	992
LUCIN C MOA, UT	FAA, SALT LAKE CITY ARTCC	Hill AFB	006500AMSL	00100AGL	USAF	120
R6402A	FAA, SALT LAKE CITY ARTCC	Hill AFB	FL580	SURFACE	USAF	987
R6402B	FAA, SALT LAKE CITY ARTCC	Hill AFB	FL580	00100AGL	USAF	35
R6404A	FAA, SALT LAKE CITY ARTCC	Hill AFB	FL580	SURFACE	USAF	1,120
R6404B	FAA, SALT LAKE CITY ARTCC	Hill AFB	013000AMSL	SURFACE	USAF	202
R6404C	FAA, SALT LAKE CITY ARTCC	Hill AFB	FL280	00100AGL	USAF	168
R6404D	FAA, SALT LAKE CITY ARTCC	Hill AFB	FL250	13000AMSL	USAF	202
R6405	FAA, SALT LAKE CITY ARTCC	Hill AFB	FL580	00100AGL	USAF	1,946
R6406A	FAA, SALT LAKE CITY ARTCC	Hill AFB	FL580	SURFACE	USAF	851
R6406B	FAA, SALT LAKE CITY ARTCC	Hill AFB	FL580	00100AGL	USAF	47
R6407	FAA, SALT LAKE CITY ARTCC	Hill AFB	FL580	SURFACE	USAF	652
SEVIER A MOA, UT	FAA, SALT LAKE CITY ARTCC	Hill AFB	014500AMSL	00100AGL	USAF	1,011
SEVIER B MOA, UT	FAA, SALT LAKE CITY ARTCC	Hill AFB	009500AMSL	00100AGL	USAF	2,200
SEVIER C MOA, NV	FAA, SALT LAKE CITY ARTCC	Hill AFB	018000AMSL	14500AMSL	USAF	1,011
SEVIER D MOA, UT	FAA, SALT LAKE CITY ARTCC	Hill AFB	018000AMSL	09500AMSL	USAF	2,200
BEAK A MOA, NM	FAA, ALBUQUERQUE ARTCC	Holloman AFB	018000AMSL	12500AMSL	USAF	690
BEAK B MOA, NM	FAA, ALBUQUERQUE ARTCC	Holloman AFB	018000AMSL	12500AMSL	USAF	606
BEAK C MOA, NM	FAA, ALBUQUERQUE ARTCC	Holloman AFB	018000AMSL	12500AMSL	USAF	636
TALON EAST HIGH MOA, NM	FAA, ALBUQUERQUE ARTCC	Holloman AFB	018000AMSL	12500AMSL	USAF	661
TALON LOW MOA, NM	FAA, ALBUQUERQUE ARTCC	Holloman AFB	012499AMSL	00300AGL	USAF	1,027
TALON WEST HIGH MOA, NM	FAA, ALBUQUERQUE ARTCC	Holloman AFB	018000AMSL	12500AMSL	USAF	972
VALENTINE MOA, TX	FAA, ALBUQUERQUE ARTCC	Holloman AFB	018000AMSL	15000AMSL	USAF	2,462
CATO MOA, NM	FAA, ALBUQUERQUE ARTCC	Kirtland AFB	018000AMSL	13500AMSL	USAF	2,655
EVERS MOA, WV	FAA, WASHINGTON, DC ARTCC	Langley AFB	018000AMSL	01000AGL	USAF	479
FARMVILLE MOA, VA	FAA, WASHINGTON, DC ARTCC	Langley AFB	005000AMSL	00300AGL	USAF	1,188
A633A	USAF, LAUGHLIN AFB	Laughlin AFB	007000AMSL	SURFACE	USAF	548
A633B	USAF, LAUGHLIN AFB	Laughlin AFB	004000AMSL	SURFACE	USAF	153
CRYSTAL MOA, TX	FAA, HOUSTON ARTCC	Laughlin AFB	018000AMSL	06000AMSL	USAF	1,377

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CRYSTAL NORTH MOA, TX	FAA, HOUSTON ARTCC	Laughlin AFB	018000AMSL	06000AMSL	USAF	410
LAUGHLIN 1 MOA, TX	FAA, HOUSTON ARTCC	Laughlin AFB	018000AMSL	09000AMSL	USAF	4,972
LAUGHLIN 2 MOA, TX	FAA, HOUSTON ARTCC	Laughlin AFB	018000AMSL	07000AMSL	USAF	2,279
LAUGHLIN 3 HIGH MOA, TX	FAA, HOUSTON ARTCC	Laughlin AFB	FL180	15000AMSL	USAF	420
LAUGHLIN 3 LOW MOA, TX	FAA, HOUSTON ARTCC	Laughlin AFB	014999AMSL	07000AMSL	USAF	420
A231	FAA, ALBUQUERQUE ARTCC	Luke AFB	006500AMSL	00500AGL	USAF	516
BAGDAD 1 MOA, AZ	FAA, ALBUQUERQUE ARTCC	Luke AFB	018000AMSL	07000AMSL	USAF	1,067
GLADDEN 1 MOA, AZ	FAA, ALBUQUERQUE ARTCC	Luke AFB	018000AMSL	05000AGL	USAF	1,872
R2301E	FAA, ALBUQUERQUE ARTCC	Luke AFB	FL800	SURFACE	USAF	1,552
R2304	FAA, ALBUQUERQUE ARTCC	Luke AFB	FL240	SURFACE	USAF	345
R2305	FAA, ALBUQUERQUE ARTCC	Luke AFB	FL240	SURFACE	USAF	187
SELLS 1 MOA, AZ	FAA, ALBUQUERQUE ARTCC	Luke AFB	018000AMSL	10000AMSL	USAF	3,665
SELLS LOW MOA, AZ	FAA, ALBUQUERQUE ARTCC	Luke AFB	009999AMSL	03000AGL	USAF	3,133
SUNNY MOA, AZ	FAA, DENVER ARTCC	Luke AFB	018000AMSL	12000AMSL	USAF	2,330
AVON EAST MOA, FL	FAA, MIAMI ARTCC	MacDill AFB	013999AMSL	00500AGL	USAF	38
AVON NORTH MOA, FL	FAA, MIAMI ARTCC	MacDill AFB	018000AMSL	05000AMSL	USAF	94
AVON SOUTH MOA, FL	FAA, MIAMI ARTCC	MacDill AFB	018000AMSL	05000AMSL	USAF	116
BASINGER MOA, FL	FAA, MIAMI ARTCC	MacDill AFB	005000AMSL	00500AGL	USAF	42
LAKE PLACID MOA, FL	FAA, MIAMI ARTCC	MacDill AFB	018000AMSL	07000AMSL	USAF	1,085
MARIAN MOA, FL	FAA, MIAMI ARTCC	MacDill AFB	005000AMSL	00500AGL	USAF	204
W168	FAA, MIAMI ARTCC	MacDill AFB	UNLTD	SURFACE	USAF	7,264
DEVILS LAKE EAST MOA, ND	FAA, MINNEAPOLIS ARTCC	McChord AFB	018000AMSL	03500AMSL	USAF	1,773
DEVILS LAKE WEST MOA, ND	FAA, MINNEAPOLIS ARTCC	McChord AFB	018000AMSL	04000AMSL	USAF	1,739
R2312	LIBBY AAF TWR	McChord AFB	014999AMSL	SURFACE	USAF	9
R5115	FAA, ALBUQUERQUE ARTCC	McChord AFB	015000AMSL	SURFACE	USAF	10
R6316	FAA, HOUSTON ARTCC	McChord AFB	015000AMSL	SURFACE	USAF	21
R6317	FAA, HOUSTON ARTCC	McChord AFB	015000AMSL	SURFACE	USAF	21
R6318	FAA, ALBUQUERQUE ARTCC	McChord AFB	014000AMSL	SURFACE	USAF	9
TIGER NORTH MOA, ND	FAA, MINNEAPOLIS ARTCC	McChord AFB	018000AMSL	00300AGL	USAF	2,225
TIGER SOUTH MOA, ND	FAA, MINNEAPOLIS ARTCC	McChord AFB	018000AMSL	06000AMSL	USAF	1,715
W93(A)	FAA, SEATTLE ARTCC	McChord AFB	FL500	SURFACE	USAF	4,987
W93(B)	FAA, SEATTLE ARTCC	McChord AFB	FL500	SURFACE	USAF	978
A220	USAF, MCGUIRE AFB RAPCON	McGuire AFB	004500AMSL	SURFACE	USAF	457

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POWERS MOA, ND	FAA, MINNEAPOLIS ARTCC	Minot AFB	018000AMSL	12000AMSL	USAF	589
A684	FAA, JACKSONVILLE ARTCC	Moody AFB	004000AGL	SURFACE	USAF	313
LIVE OAK MOA, FL	FAA, JACKSONVILLE ARTCC	Moody AFB	018000AMSL	08000AMSL	USAF	1,208
MOODY 1 MOA, GA	FAA, JACKSONVILLE ARTCC	Moody AFB	018000AMSL	08000AMSL	USAF	4,714
MOODY 2 NORTH MOA, GA	FAA, JACKSONVILLE ARTCC	Moody AFB	007999AMSL	00500AGL	USAF	318
MOODY 2 SOUTH MOA, GA	FAA, JACKSONVILLE ARTCC	Moody AFB	007999AMSL	00100AGL	USAF	405
MOODY 3 MOA, GA	FAA, JACKSONVILLE ARTCC	Moody AFB	018000AMSL	08000AMSL	USAF	1,258
R3008A	USAF, VALDOSTA APP	Moody AFB	010000AMSL	SURFACE	USAF	6
R3008B	USAF, VALDOSTA APP	Moody AFB	010000AMSL	00100AGL	USAF	20
R3008C	USAF, VALDOSTA APP	Moody AFB	010000AMSL	00500AGL	USAF	67
R3008C(A)	USAF, VALDOSTA APP	Moody AFB	001500AGL	SURFACE	USAF	3
R3008D	USAF, VALDOSTA APP	Moody AFB	022999AMSL	10000AMSL	USAF	93
R3202(H)	FAA, SALT LAKE CITY ARTCC	Mountain Home AFB	FL290	FL180	USAF	226
R3202(L)	FAA, SALT LAKE CITY ARTCC	Mountain Home AFB	018000AMSL	SURFACE	USAF	226
R3204A	FAA, SALT LAKE CITY ARTCC	Mountain Home AFB	000100AGL	SURFACE	USAF	14
R3204B	FAA, SALT LAKE CITY ARTCC	Mountain Home AFB	018000AMSL	00100AGL	USAF	78
R3204C	FAA, SALT LAKE CITY ARTCC	Mountain Home AFB	FL290	FL180	USAF	78
JARBIDGE MOA, ID	FAA, SALT LAKE CITY ARTCC	Mt. Home AFB	018000AMSL	00100AGL	USAF	1,836
OWYHEE MOA, ID	FAA, SALT LAKE CITY ARTCC	Mt. Home AFB	018000AMSL	00100AGL	USAF	1,988
PARADISE EAST MOA, NV	FAA, SALT LAKE CITY ARTCC	Mt. Home AFB	018000AMSL	14500AMSL	USAF	1,608
PARADISE WEST MOA, OR	FAA, SALT LAKE CITY ARTCC	Mt. Home AFB	018000AMSL	14500AMSL	USAF	1,840
W506	FAA, NEW YORK ARTCC	NE ADS/DOOS, NY ANG	FL500	SURFACE	USAF	1,796
A481	USAF, NELLIS AFB	Nellis AFB	017000AMSL	07000AMSL	USAF	252
DESERT MOA, NV	FAA, LOS ANGELES ARTCC	Nellis AFB	018000AMSL	00100AGL	USAF	5,543
R4806E	FAA, LOS ANGELES ARTCC	Nellis AFB	UNLTD	00100AGL	USAF	291
R4806W	FAA, LOS ANGELES ARTCC	Nellis AFB	UNLTD	SURFACE	USAF	1,179
R4807A	FAA, LOS ANGELES ARTCC	Nellis AFB	UNLTD	SURFACE	USAF	1,698
R4807B	FAA, LOS ANGELES ARTCC	Nellis AFB	UNLTD	SURFACE	USAF	100
REVEILLE NORTH MOA, NV	FAA, SALT LAKE CITY ARTCC	Nellis AFB	018000AMSL	00100AGL	USAF	1,245
REVEILLE SOUTH MOA, NV	FAA, SALT LAKE CITY ARTCC	Nellis AFB	018000AMSL	00100AGL	USAF	439
ONTONAGON MOA, MI	FAA, MINNEAPOLIS ARTCC	Offutt AFB	018000AMSL	00500AGL	USAF	863
R4305	FAA, MINNEAPOLIS ARTCC	Offutt AFB	FL450	SURFACE	USAF	1,242
(RO)W173	USAF, CFAO KADENA AB	Okinawa Range Complex	UNLTD	SURFACE	USAF	6,077

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(RO)W182	USAF, CFAO KADENA AB	Okinawa Range Complex	004000AMSL	SURFACE	USAF	78
W497A	FAA, MIAMI ARTCC	Patrick AFB	UNLTD	SURFACE	USAF	2,422
W497B	FAA, MIAMI ARTCC	Patrick AFB	UNLTD	SURFACE	USAF	21,756
R2508	FAA, HI-DESERT TRACON, EDWARDS AFB	R-2508 Complex	UNLTD	FL200	USAF	12,127
SHOSHONE MOA, CA	FAA, LOS ANGELES ARTCC	R-2508 Complex	018000AMSL	03001AGL	USAF	1,170
A635	USAF, RANDOLPH AFB	Randolph AFB	004000AMSL	01500AMSL	USAF	139
A638	USAF, RANDOLPH AFB	Randolph AFB	003000AMSL	SURFACE	USAF	129
A640	USAF, RANDOLPH AFB	Randolph AFB	007500AMSL	00200AGL	USAF	2,493
RANDOLPH 1A MOA, TX	FAA, HOUSTON ARTCC	Randolph AFB	018000AMSL	08000AMSL	USAF	1,418
RANDOLPH 1B MOA, TX	FAA, SAN ANTONIO TRACON	Randolph AFB	018000AMSL	07000AMSL	USAF	754
RANDOLPH 2A MOA, TX	FAA, HOUSTON ARTCC	Randolph AFB	018000AMSL	09000AMSL	USAF	1,443
RANDOLPH 2B MOA, TX	FAA, HOUSTON ARTCC	Randolph AFB	018000AMSL	14000AMSL	USAF	316
TEXON MOA, TX	FAA, HOUSTON ARTCC	Randolph AFB	018000AMSL	06000AMSL	USAF	1,156
PHELPS A MOA, NC	FAA, WASHINGTON, DC ARTCC	Seymour-Johnson AFB	018000AMSL	06000AMSL	USAF	211
PHELPS B MOA, NC	FAA, WASHINGTON, DC ARTCC	Seymour-Johnson AFB	018000AMSL	10000AMSL	USAF	77
PHELPS C MOA, NC	FAA, WASHINGTON, DC ARTCC	Seymour-Johnson AFB	018000AMSL	15000AMSL	USAF	44
SEYMOUR JOHNSON ECHO MOA, NC	FAA, WASHINGTON, DC ARTCC	Seymour-Johnson AFB	018000AMSL	07000AMSL	USAF	1,036
BULLDOG A MOA, GA	FAA, ATLANTA ARTCC	Shaw AFB	009999AMSL	00500AGL	USAF	1,052
BULLDOG B MOA, GA	FAA, ATLANTA ARTCC	Shaw AFB	018000AMSL	10000AMSL	USAF	1,677
BULLDOG D MOA, GA	FAA, ATLANTA ARTCC	Shaw AFB	017000AMSL	00500AGL	USAF	79
GAMECOCK B MOA, SC	FAA, JACKSONVILLE ARTCC	Shaw AFB	018000AMSL	10000AMSL	USAF	248
GAMECOCK C MOA, SC	FAA, JACKSONVILLE ARTCC	Shaw AFB	010000AMSL	00100AGL	USAF	623
GAMECOCK D MOA, SC	FAA, JACKSONVILLE ARTCC	Shaw AFB	018000AMSL	10000AMSL	USAF	839
GAMECOCK I MOA, SC	FAA, JACKSONVILLE ARTCC	Shaw AFB	006000AMSL	00100AGL	USAF	405
POINSETT MOA, SC	USAF, SHAW APP CON	Shaw AFB	002500AMSL	00300AGL	USAF	145
R6002A	FAA, JACKSONVILLE ARTCC	Shaw AFB	012999AMSL	SURFACE	USAF	54
R6002B	FAA, JACKSONVILLE ARTCC	Shaw AFB	018000AMSL	13000AMSL	USAF	54
R6002C	FAA, JACKSONVILLE ARTCC	Shaw AFB	FL230	FL180	USAF	54
W161A	FAA, JACKSONVILLE ARTCC	Shaw AFB	FL620	SURFACE	USAF	1,265
W161B	FAA, JACKSONVILLE ARTCC	Shaw AFB	FL240	SURFACE	USAF	562
W177A(A)	FAA, JACKSONVILLE ARTCC	Shaw AFB	FL500	SURFACE	USAF	1,666
W177A(B)	FAA, JACKSONVILLE ARTCC	Shaw AFB	FL500	06001AMSL	USAF	210
W177B	FAA, JACKSONVILLE ARTCC	Shaw AFB	FL240	SURFACE	USAF	758

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GAMECOCK A MOA, NC	FAA, WASHINGTON, DC ARTCC	Shaw AFB (20 OSS/OSOS)	018000AMSL	07000AMSL	USAF	555
A561	USAF, SHEPPARD AFB	Sheppard AFB	004000AMSL	SURFACE	USAF	145
A636	USAF, SHEPPARD AFB	Sheppard AFB	004000AMSL	SURFACE	USAF	529
HOLLIS MOA, OK	FAA, FORT WORTH ARTCC	Sheppard AFB	018000AMSL	11000AMSL	USAF	1204
SHEPPARD 1 MOA, TX	FAA, FORT WORTH ARTCC	Sheppard AFB	018000AMSL	08000AMSL	USAF	1033
SHEPPARD 2 MOA, TX	FAA, FORT WORTH ARTCC	Sheppard AFB	018000AMSL	08000AMSL	USAF	1264
WASHITA MOA, OK	FAA, FORT WORTH ARTCC	Sheppard AFB	018000AMSL	08000AMSL	USAF	966
WESTOVER 1 MOA, TX	FAA, FORT WORTH ARTCC	Sheppard AFB	018000AMSL	09000AMSL	USAF	1,986
WESTOVER 2 MOA, TX	FAA, FORT WORTH ARTCC	Sheppard AFB	018000AMSL	10000AMSL	USAF	2,180
A682(A)	USAF, TRAVIS AFB	Travis AFB	006000AMSL	SURFACE	USAF	206
A682(B)	USAF, TRAVIS AFB	Travis AFB	003000AMSL	SURFACE	USAF	116
R2905A	TYNDALL AFB RADAR APP	Tyndall AFB	010000AMSL	SURFACE	USAF	15
R2905B	TYNDALL AFB RADAR APP	Tyndall AFB	010000AMSL	SURFACE	USAF	25
R2916	FAA, MIAMI ARTCC	Tyndall AFB	014000AMSL	SURFACE	USAF	9
R3807	FAA, HOUSTON ARTCC	Tyndall AFB	015000AMSL	SURFACE	USAF	28
TYNDALL B MOA, FL	USAF, TYNDALL RADAR APP CON	Tyndall AFB	018000AMSL	09000AMSL	USAF	347
TYNDALL C MOA, FL	USAF, TYNDALL RADAR APP CON	Tyndall AFB	006000AMSL	00300AGL	USAF	559
TYNDALL D MOA, FL	USAF, TYNDALL RADAR APP CON	Tyndall AFB	006000AMSL	00300AGL	USAF	311
TYNDALL E MOA, FL	USAF, TYNDALL RADAR APP CON	Tyndall AFB	018000AMSL	00300AGL	USAF	893
TYNDALL F MOA, FL	USAF, TYNDALL RADAR APP CON	Tyndall AFB	018000AMSL	00300AGL	USAF	297
TYNDALL G MOA, FL	USAF, TYNDALL RADAR APP CON	Tyndall AFB	018000AMSL	01000AGL	USAF	224
TYNDALL H MOA, FL	USAF, TYNDALL RADAR APP CON	Tyndall AFB	018000AMSL	09000AMSL	USAF	559
A260	USAF ACADEMY	USAF Academy	017500AMSL	SURFACE	USAF	31
A639A	USAF, USAF ACADEMY	USAF Academy	012000AMSL	03000AGL	USAF	730
A639B	USAF, USAF ACADEMY	USAF Academy	012000AMSL	03000AGL	USAF	136
A562A	USAF, VANCE AFB	Vance AFB	010000AMSL	SURFACE	USAF	119
A562B	USAF, VANCE AFB	Vance AFB	010000AMSL	SURFACE	USAF	156
ADA EAST MOA, KS	FAA, KANSAS CITY ARTCC	Vance AFB	018000AMSL	07000AMSL	USAF	1,124
ADA WEST MOA, KS	FAA, KANSAS CITY ARTCC	Vance AFB	018000AMSL	07000AMSL	USAF	1,065
VANCE 1A MOA, OK	FAA, KANSAS CITY ARTCC	Vance AFB	018000AMSL	10000AMSL	USAF	2,038
VANCE 1B MOA, OK	FAA, KANSAS CITY ARTCC	Vance AFB	018000AMSL	07000AMSL	USAF	2,236
R2516	FAA, LOS ANGELES ARTCC	Vandenberg AFB	UNLTD	SURFACE	USAF	134
R2517	FAA, LOS ANGELES ARTCC	Vandenberg AFB	UNLTD	SURFACE	USAF	95

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2007 SUA Name	Controlling Agency	Range Complex/ Installation Name	Upper Altitude	Lower Altitude	Military Service*	Area (nm^2)**
R2534A	FAA, LOS ANGELES ARTCC	Vandenberg AFB	UNLTD	00500AGL	USAF	52
R2534B	FAA, LOS ANGELES ARTCC	Vandenberg AFB	UNLTD	00500AGL	USAF	54
R6413	FAA, DENVER ARTCC	White Sands Missile Range	UNLTD	SURFACE	USAF	204
TRUMAN A MOA, MO	FAA, KANSAS CITY ARTCC	Whiteman AFB	018000AMSL	08000AMSL	USAF	1,107
TRUMAN B MOA, MO	FAA, KANSAS CITY ARTCC	Whiteman AFB	018000AMSL	08000AMSL	USAF	731
TRUMAN C MOA, MO	FAA, KANSAS CITY ARTCC	Whiteman AFB	018000AMSL	00500AGL	USAF	608
R2309	FAA, LOS ANGELES ARTCC	Yuma Proving Ground	015000AMSL	SURFACE	USAF	7
YANKEE 1 MOA, NH	FAA, BOSTON ARTCC	103 TFG/DOC, CT ANG	018000AMSL	09000AMSL	USAF(ANG)	1,921
YANKEE 2 MOA, NH	FAA, BOSTON ARTCC	103 TFG/DOC, CT ANG	008999AMSL	00100AGL	USAF(ANG)	775
HERSEY MOA, MI	FAA, MINNEAPOLIS ARTCC	110 TASG, MI ANG	018000AMSL	05000AMSL	USAF(ANG)	576
DUKE MOA, PA	FAA, CLEVELAND ARTCC	112 ACS/DOT, PA ANG	018000AMSL	08000AMSL	USAF(ANG)	1,643
HAYS MOA, MT	FAA, SALT LAKE CITY ARTCC	120 FW, MT ANG	018000AMSL	00300AGL	USAF(ANG)	5,368
BRUSH CREEK MOA, OH	FAA, INDIANAPOLIS ARTCC	123 ACS, OH ANG	004999AMSL	00100AGL	USAF(ANG)	721
BUCKEYE MOA, OH	FAA, INDIANAPOLIS ARTCC	123 ACS, OH ANG	018000AMSL	05000AMSL	USAF(ANG)	1,653
LINDBERGH A MOA, MO	FAA, KANSAS CITY ARTCC	131 FW, MO ANG	018000AMSL	07000AMSL	USAF(ANG)	2,302
LINDBERGH B MOA, MO	FAA, KANSAS CITY ARTCC	131 FW, MO ANG	018000AMSL	08000AMSL	USAF(ANG)	811
LINDBERGH C MOA, MO	FAA, KANSAS CITY ARTCC	131 FW, MO ANG	018000AMSL	08000AMSL	USAF(ANG)	611
CANNON A MOA, MO	FAA, KANSAS CITY ARTCC	131 TFW, Det 1, MO ANG	018000AMSL	00300AGL	USAF(ANG)	232
CANNON B MOA, MO	FAA, KANSAS CITY ARTCC	131 TFW, Det 1, MO ANG	018000AMSL	00100AGL	USAF(ANG)	16
SALEM MOA, MO	FAA, KANSAS CITY ARTCC	131 TFW, Det 1, MO ANG	006999AMSL	SURFACE	USAF(ANG)	1,459
CRYPT CENTRAL MOA, IA	FAA, MINNEAPOLIS ARTCC	132 FW, IA ANG	018000AMSL	08000AMSL	USAF(ANG)	1,479
CRYPT NORTH MOA, IA	FAA, MINNEAPOLIS ARTCC	132 FW, IA ANG	018000AMSL	08000AMSL	USAF(ANG)	1,777
CRYPT SOUTH MOA, IA	FAA, MINNEAPOLIS ARTCC	132 FW, IA ANG	018000AMSL	08000AMSL	USAF(ANG)	1,325
BEAVER MOA, MN	FAA, MINNEAPOLIS ARTCC	148 FIG, MN ANG	018000AMSL	00300AGL	USAF(ANG)	2,494
BIG BEAR MOA, MI	FAA, MINNEAPOLIS ARTCC	148 FIG, MN ANG	018000AMSL	00500AMSL	USAF(ANG)	1,751
SNOOPY EAST MOA, MN	FAA, MINNEAPOLIS ARTCC	148 FIG, MN ANG	018000AMSL	00300AGL	USAF(ANG)	1,074
SNOOPY WEST MOA, MN	FAA, MINNEAPOLIS ARTCC	148 FIG, MN ANG	018000AMSL	06000AMSL	USAF(ANG)	2,773
LINCOLN MOA, NE	FAA, MINNEAPOLIS ARTCC	155 TRG, NE ANG	018000AMSL	08000AMSL	USAF(ANG)	1,306
JACKAL LOW MOA, AZ	FAA, ALBUQUERQUE ARTCC	162 FW, AZ ANG	010999AMSL	00100AGL	USAF(ANG)	677
JACKAL MOA, AZ	FAA, ALBUQUERQUE ARTCC	162 FW, AZ ANG	018000AMSL	11000AMSL	USAF(ANG)	3,562
MORENCI MOA, AZ	FAA, ALBUQUERQUE ARTCC	162 FW, AZ ANG	018000AMSL	01500AGL	USAF(ANG)	1,757
OUTLAW MOA, AZ	FAA, ALBUQUERQUE ARTCC	162 FW, AZ ANG	018000AMSL	08000AMSL	USAF(ANG)	1,984
RESERVE MOA, AZ	FAA, ALBUQUERQUE ARTCC	162 FW, AZ ANG	018000AMSL	05000AGL	USAF(ANG)	2,531

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RUBY 1 MOA, AZ	FAA, ALBUQUERQUE ARTCC	162 FW, AZ ANG	018000AMSL	10000AMSL	USAF(ANG)	581
HART NORTH MOA, OR	FAA, SEATTLE ARTCC	173 FW, OR ANG	018000AMSL	11000AMSL	USAF(ANG)	660
HART SOUTH MOA, OR	FAA, SEATTLE ARTCC	173 FW, OR ANG	018000AMSL	11000AMSL	USAF(ANG)	1,825
MISTY 1 MOA, NY	FAA, CLEVELAND ARTCC	174 FW, NY ANG	018000AMSL	04000AMSL	USAF(ANG)	599
MISTY 2 MOA, NY	FAA, CLEVELAND ARTCC	174 FW, NY ANG	018000AMSL	00300AGL	USAF(ANG)	717
MISTY 3 MOA, NY	FAA, CLEVELAND ARTCC	174 FW, NY ANG	018000AMSL	11000AMSL	USAF(ANG)	522
SYRACUSE 1 MOA, NY	USA, WHEELER SACK APPROACH	174 FW, NY ANG	005999AMSL	00100AGL	USAF(ANG)	606
SYRACUSE 2A MOA, NY	USA, WHEELER SACK APPROACH	174 FW, NY ANG	005999AMSL	00100AGL	USAF(ANG)	89
SYRACUSE 3 MOA, NY	USA, WHEELER SACK APPROACH	174 FW, NY ANG	005999AMSL	00100AGL	USAF(ANG)	132
SYRACUSE 4 MOA, NY	USA, WHEELER SACK APPROACH	174 FW, NY ANG	003000AMSL	00100AGL	USAF(ANG)	167
RED HILLS MOA, IN	FAA, INDIANAPOLIS ARTCC	181 TFG, IN ANG, Terre Haute	018000AMSL	06000AMSL	USAF(ANG)	1,371
O NEILL MOA, SD	FAA, MINNEAPOLIS ARTCC	185 FW, IA ANG	018000AMSL	00500AGL	USAF(ANG)	2,204
BIRMINGHAM 2 MOA, AL	FAA, ATLANTA ARTCC	187 FW, AL ANG	009999AMSL	00500AGL	USAF(ANG)	1,135
BIRMINGHAM MOA, AL	FAA, ATLANTA ARTCC	187 FW, AL ANG	018000AMSL	10000AMSL	USAF(ANG)	1,165
CAMDEN RIDGE MOA, AL	FAA, ATLANTA ARTCC	187 FW, AL ANG	009999AMSL	00500AGL	USAF(ANG)	2,154
W453	FAA, HOUSTON ARTCC	ANG CRTC GULFPORT, Gulfport, MS	FL500	SURFACE	USAF(ANG)	1,260
AIRBURST A MOA, CO	FAA, DENVER ARTCC	Buckley ANGB	018000AMSL	01500AGL	USAF(ANG)	167
AIRBURST B MOA, CO	FAA, DENVER ARTCC	Buckley ANGB	018000AMSL	00500AGL	USAF(ANG)	14
AIRBURST C MOA, CO	FAA, DENVER ARTCC	Buckley ANGB	008499AMSL	00500AGL	USAF(ANG)	11
CHEYENNE HIGH MOA, CO	FAA, DENVER ARTCC	Buckley ANGB	018000AMSL	09000AMSL	USAF(ANG)	1,863
CHEYENNE LOW MOA, CO	FAA, DENVER ARTCC	Buckley ANGB	008999AMSL	00300AGL	USAF(ANG)	1,701
LA VETA HIGH MOA, CO	FAA, DENVER ARTCC	Buckley ANGB	018000AMSL	13000AMSL	USAF(ANG)	1,266
LA VETA LOW MOA, CO	FAA, DENVER ARTCC	Buckley ANGB	013000AMSL	01500AGL	USAF(ANG)	203
TWO BUTTES HIGH MOA, CO	FAA, DENVER ARTCC	Buckley ANGB	018000AMSL	10000AMSL	USAF(ANG)	1,435
TWO BUTTES LOW MOA, CO	FAA, DENVER ARTCC	Buckley ANGB	009999AMSL	00300AGL	USAF(ANG)	1,435
DEEPWOODS MOA, ME	FAA, BANGOR APP CON	CO, Army Avn Support Fac/ME ANG	003000AMSL	SURFACE	USAF(ANG)	205
VOLK SOUTH MOA, WI	FAA, CHICAGO ARTCC	Hardwood (Volk Field)	018000AMSL	00500AGL	USAF(ANG)	514
GOOSE NORTH MOA, OR	FAA, SEATTLE ARTCC	Kingsley Fld	018000AMSL	03000AGL	USAF(ANG)	1,387
GOOSE SOUTH MOA, OR	FAA, SEATTLE ARTCC	Kingsley Fld	018000AMSL	10000AMSL	USAF(ANG)	738
A683	WICHITA TRACON	McConnell AFB (184 ARW, KS ANG)	004500AMSL	SURFACE	USAF(ANG)	114
EUREKA HIGH MOA, KS	FAA, KANSAS CITY ARTCC	McConnell AFB (184 ARW, KS ANG)	018000AMSL	06000AMSL	USAF(ANG)	1,648
EUREKA LOW MOA, KS	FAA, KANSAS CITY ARTCC	McConnell AFB (184 ARW, KS ANG)	005999AMSL	02500AMSL	USAF(ANG)	1,648
CONDOR 1 MOA, ME	FAA, BOSTON ARTCC	NE ADS/DOOS, NY ANG	018000AMSL	07000AMSL	USAF(ANG)	2,424

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CONDOR 2 MOA, ME	FAA, BOSTON ARTCC	NE ADS/DOOS, NY ANG	018000AMSL	07000AMSL	USAF(ANG)	614
FALCON 1 MOA, NY	FAA, BOSTON ARTCC	NE ADS/DOOS, NY ANG	018000AMSL	06000AMSL	USAF(ANG)	2,040
FALCON 3 MOA, NY	FAA, BOSTON ARTCC	NE ADS/DOOS, NY ANG	018000AMSL	06000AMSL	USAF(ANG)	242
R4207	FAA, MINNEAPOLIS ARTCC	Phelps-Collins ANGB	FL450	SURFACE	USAF(ANG)	1,009
R3007A	FAA, JACKSONVILLE ARTCC	Townsend	005000AMSL	01500AGL	USAF(ANG)	7
R3007B	FAA, JACKSONVILLE ARTCC	Townsend	005000AMSL	00500AGL	USAF(ANG)	32
R3007C	FAA, JACKSONVILLE ARTCC	Townsend	013000AMSL	00100AGL	USAF(ANG)	134
R3007D	FAA, JACKSONVILLE ARTCC	Townsend	013000AMSL	01200AGL	USAF(ANG)	167
FALLS 1 MOA, WI	FAA, MINNEAPOLIS ARTCC	Volk Field ANGB	018000AMSL	00500AGL	USAF(ANG)	832
FALLS 2 MOA, WI	FAA, MINNEAPOLIS ARTCC	Volk Field ANGB	018000AMSL	00500AGL	USAF(ANG)	526
MINNOW MOA, WI	FAA, CHICAGO ARTCC	Volk Field ANGB	018000AMSL	10000AMSL	USAF(ANG)	1,741
R6903	FAA, CHICAGO ARTCC	Volk Field ANGB	FL450	SURFACE	USAF(ANG)	943
R6904A	FAA, MINNEAPOLIS ARTCC	Volk Field ANGB	FL230	00150AGL	USAF(ANG)	69
R6904B	FAA, MINNEAPOLIS ARTCC	Volk Field ANGB	FL230	SURFACE	USAF(ANG)	12
VOLK EAST MOA, WI	FAA, CHICAGO ARTCC	Volk Field ANGB	018000AMSL	08000AMSL	USAF(ANG)	1,866
VOLK WEST MOA, WI	FAA, MINNEAPOLIS ARTCC	Volk Field ANGB	018000AMSL	00100AGL	USAF(ANG)	514
R2503A	FAA, LOS ANGELES ARTCC	Camp Pendleton Range Complex	002000AMSL	SURFACE	USMC	72
R2503B	FAA, LOS ANGELES ARTCC	Camp Pendleton Range Complex	015000AMSL	SURFACE	USMC	108
R2503C	FAA, LOS ANGELES ARTCC	Camp Pendleton Range Complex	FL270	15000AMSL	USMC	85
A530	USMC, CHERRY POINT MCAS	Cherry Point/Camp Lejeune Range Complex	018000AMSL	SURFACE	USMC	405
HATTERAS F MOA, NC	FAA, WASHINGTON, DC ARTCC	Cherry Point/Camp Lejeune Range Complex	013000AMSL	03000AMSL	USMC	102
R5303A	USMC, CHERRY POINT APP	Cherry Point/Camp Lejeune Range Complex	006999AMSL	SURFACE	USMC	25
R5303B	USMC, CHERRY POINT APP	Cherry Point/Camp Lejeune Range Complex	009999AMSL	07000AMSL	USMC	25
R5303C	FAA, WASHINGTON, DC ARTCC	Cherry Point/Camp Lejeune Range Complex	018000AMSL	10000AMSL	USMC	25
R5304A	USMC, CHERRY POINT APP	Cherry Point/Camp Lejeune Range Complex	006999AMSL	SURFACE	USMC	24
R5304B	USMC, CHERRY POINT APP	Cherry Point/Camp Lejeune Range Complex	009999AMSL	07000AMSL	USMC	24
R5304C	FAA, WASHINGTON, DC ARTCC	Cherry Point/Camp Lejeune Range Complex	018000AMSL	10000AMSL	USMC	24
R5306A	USMC, CHERRY POINT APP	Cherry Point/Camp Lejeune Range Complex	018000AMSL	SURFACE	USMC	816
R5306C	USMC, CHERRY POINT APP	Cherry Point/Camp Lejeune Range Complex	018000AMSL	01200AMSL	USMC	164
R5306D	USMC, CHERRY POINT APP	Cherry Point/Camp Lejeune Range Complex	018000AMSL	SURFACE	USMC	98
R5306E	USMC, CHERRY POINT APP	Cherry Point/Camp Lejeune Range Complex	018000AMSL	SURFACE	USMC	4
BEAUFORT 1 MOA, SC	FAA, JACKSONVILLE ARTCC	MCAS Beaufort/Townsend Range Complex	010000AMSL	00100AGL	USMC	255
BEAUFORT 2 MOA, SC	FAA, JACKSONVILLE ARTCC	MCAS Beaufort/Townsend Range Complex	007000AMSL	00100AGL	USMC	417

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BEAUFORT 3 MOA, SC	FAA, JACKSONVILLE ARTCC	MCAS Beaufort/Townsend Range Complex	002000AMSL	00100AGL	USMC	276
W74(A)	FAA, JACKSONVILLE ARTCC	MCAS Beaufort/Townsend Range Complex	010000AMSL	SURFACE	USMC	173
W74(B)	FAA, JACKSONVILLE ARTCC	MCAS Beaufort/Townsend Range Complex	010000AMSL	03000AMSL	USMC	9
(RO)R177	USMC, CAMP SMEDLEY D. BUTLER	Okinawa Range Complex	003000AMSL	SURFACE	USMC	12
(RO)R201	USMC, COMDR MCB JA, OPS AND TRNG	Okinawa Range Complex	002000AMSL	SURFACE	USMC	18
(RO)R202	USMC, COMDR MCB JA, OPS AND TRNG	Okinawa Range Complex	001000AMSL	SURFACE	USMC	17
(RO)R203	USMC, COMDR MCB JA, OPS AND TRNG	Okinawa Range Complex	001000AMSL	SURFACE	USMC	1
(RO)W178A	USMC, CAMP SMEDLEY D. BUTLER	Okinawa Range Complex	013000AMSL	SURFACE	USMC	287
DEMO 1 MOA, VA	FAA, WASHINGTON, DC ARTCC	Quantico Range Complex	005000AMSL	00500AMSL	USMC	84
DEMO 2 MOA, VA	FAA, WASHINGTON, DC ARTCC	Quantico Range Complex	015000AMSL	10000AMSL	USMC	55
DEMO 3 MOA, VA	FAA, WASHINGTON, DC ARTCC	Quantico Range Complex	015000AMSL	05000AMSL	USMC	84
R6608A	FAA, DULLES INTL TWR	Quantico Range Complex	010000AMSL	SURFACE	USMC	11
R6608B	FAA, DULLES INTL TWR	Quantico Range Complex	010000AMSL	SURFACE	USMC	27
R6608C	FAA, DULLES INTL TWR	Quantico Range Complex	010000AMSL	SURFACE	USMC	17
BRISTOL MOA, CA	FAA, LOS ANGELES ARTCC	Twentynine Palms Range Complex	018000AMSL	05000AMSL	USMC	404
R2501E	FAA, LOS ANGELES ARTCC	Twentynine Palms Range Complex	UNLTD	SURFACE	USMC	237
R2501N	FAA, LOS ANGELES ARTCC	Twentynine Palms Range Complex	UNLTD	SURFACE	USMC	305
R2501S	FAA, LOS ANGELES ARTCC	Twentynine Palms Range Complex	UNLTD	SURFACE	USMC	197
R2501W	FAA, LOS ANGELES ARTCC	Twentynine Palms Range Complex	UNLTD	SURFACE	USMC	76
SUNDANCE MOA, CA	FAA, LOS ANGELES ARTCC	Twentynine Palms Range Complex	010000AMSL	00500AGL	USMC	50
ABEL BRAVO MOA, CA	FAA, LOS ANGELES ARTCC	Yuma Range Complex	018000AMSL	07000AMSL	USMC	89
ABEL EAST MOA, CA	FAA, LOS ANGELES ARTCC	Yuma Range Complex	012999AMSL	05000AMSL	USMC	309
ABEL NORTH MOA, CA	FAA, LOS ANGELES ARTCC	Yuma Range Complex	018000AMSL	07000AMSL	USMC	664
ABEL SOUTH MOA, CA	FAA, LOS ANGELES ARTCC	Yuma Range Complex	018000AMSL	07000AMSL	USMC	258
DOME MOA, AZ	FAA, LOS ANGELES ARTCC	Yuma Range Complex	018000AMSL	06000AMSL	USMC	193
KANE EAST MOA, CA	FAA, LOS ANGELES ARTCC	Yuma Range Complex	018000AMSL	10000AMSL	USMC	469
KANE SOUTH MOA, CA	FAA, LOS ANGLES ARTCC	Yuma Range Complex	018000AMSL	10000AMSL	USMC	72
KANE WEST MOA, CA	FAA, LOS ANGELES ARTCC	Yuma Range Complex	018000AMSL	10000AMSL	USMC	611
QUAIL MOA, AZ	FAA, LOS ANGELES ARTCC	Yuma Range Complex	018000AMSL	10000AMSL	USMC	1,057
R2301W	FAA, LOS ANGELES ARTCC	Yuma Range Complex	FL800	SURFACE	USMC	1,176
R2507N	FAA, LOS ANGELES ARTCC	Yuma Range Complex	FL400	SURFACE	USMC	214
R2507S	FAA, LOS ANGELES ARTCC	Yuma Range Complex	FL400	SURFACE	USMC	243
TURTLE MOA, AZ	FAA, LOS ANGELES ARTCC	Yuma Range Complex	018000AMSL	11000AMSL	USMC	1,718

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W107A	FAA, WASHINGTON, DC ARTCC	Atlantic City Range Complex	UNLTD	SURFACE	USN	4,810
W107B	FAA, WASHINGTON, DC ARTCC	Atlantic City Range Complex	001999AMSL	SURFACE	USN	226
W107C	FAA, WASHINGTON, DC ARTCC	Atlantic City Range Complex	018000AMSL	SURFACE	USN	550
D3002	NASSAU, ACC	AUTEC	00500AMSL	SURFACE	USN	94
D3003A	NASSAU, ACC	AUTEC	UNLTD	SURFACE	USN	237
D3003B	NASSAU, ACC	AUTEC	UNLTD	SURFACE	USN	146
D3003C	NASSAU, ACC	AUTEC	UNLTD	SURFACE	USN	143
W102H	FAA, BOSTON ARTCC	Boston Range Complex	FL600	17001AMSL	USN	3,443
W102L	FAA, BOSTON ARTCC	Boston Range Complex	017000AMSL	SURFACE	USN	3,443
W103	FAA, BOSTON ARTCC	Boston Range Complex	002000AMSL	SURFACE	USN	1,479
W104A	FAA, BOSTON ARTCC	Boston Range Complex	010000AMSL	SURFACE	USN	315
W104B	FAA, BOSTON ARTCC	Boston Range Complex	018000AMSL	SURFACE	USN	1,508
W104C	FAA, BOSTON ARTCC	Boston Range Complex	UNLTD	FL180	USN	1,508
W122(1)	FAA, WASHINGTON, DC ARTCC	Cherry Point Range Complex	UNLTD	SURFACE	USN	883
W122(10)	FAA, WASHINGTON, DC ARTCC	Cherry Point Range Complex	UNLTD	SURFACE	USN	657
W122(11)	FAA, WASHINGTON, DC ARTCC	Cherry Point Range Complex	UNLTD	SURFACE	USN	838
W122(12)	FAA, WASHINGTON, DC ARTCC	Cherry Point Range Complex	UNLTD	SURFACE	USN	776
W122(13)	FAA, WASHINGTON, DC ARTCC	Cherry Point Range Complex	UNLTD	SURFACE	USN	1,090
W122(14)	FAA, WASHINGTON, DC ARTCC	Cherry Point Range Complex	UNLTD	SURFACE	USN	1,087
W122(15A)	FAA, WASHINGTON, DC ARTCC	Cherry Point Range Complex	UNLTD	SURFACE	USN	953
W122(15B)	FAA, WASHINGTON, DC ARTCC	Cherry Point Range Complex	UNLTD	SURFACE	USN	41
W122(16)	FAA, WASHINGTON, DC ARTCC	Cherry Point Range Complex	UNLTD	SURFACE	USN	979
W122(17)	FAA, WASHINGTON, DC ARTCC	Cherry Point Range Complex	UNLTD	SURFACE	USN	741
W122(18)	FAA, WASHINGTON, DC ARTCC	Cherry Point Range Complex	UNLTD	SURFACE	USN	820
W122(19)	FAA, WASHINGTON, DC ARTCC	Cherry Point Range Complex	UNLTD	SURFACE	USN	890
W122(2)	FAA, WASHINGTON, DC ARTCC	Cherry Point Range Complex	UNLTD	SURFACE	USN	1,062
W122(20)	FAA, WASHINGTON, DC ARTCC	Cherry Point Range Complex	UNLTD	SURFACE	USN	789
W122(21)	FAA, WASHINGTON, DC ARTCC	Cherry Point Range Complex	UNLTD	SURFACE	USN	1,029
W122(22)	FAA, WASHINGTON, DC ARTCC	Cherry Point Range Complex	UNLTD	SURFACE	USN	614
W122(23)	FAA, WASHINGTON, DC ARTCC	Cherry Point Range Complex	UNLTD	SURFACE	USN	443
W122(3)	FAA, WASHINGTON, DC ARTCC	Cherry Point Range Complex	UNLTD	SURFACE	USN	931
W122(4)	FAA, WASHINGTON, DC ARTCC	Cherry Point Range Complex	UNLTD	SURFACE	USN	688
W122(5)	FAA, WASHINGTON, DC ARTCC	Cherry Point Range Complex	UNLTD	SURFACE	USN	644

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W122(6)	FAA, WASHINGTON, DC ARTCC	Cherry Point Range Complex	UNLTD	SURFACE	USN	797
W122(7)	FAA, WASHINGTON, DC ARTCC	Cherry Point Range Complex	UNLTD	SURFACE	USN	798
W122(8)	FAA, WASHINGTON, DC ARTCC	Cherry Point Range Complex	UNLTD	SURFACE	USN	505
W122(9)	FAA, WASHINGTON, DC ARTCC	Cherry Point Range Complex	UNLTD	SURFACE	USN	665
W72(13)A	FAA, WASHINGTON, DC ARTCC	Cherry Point Range Complex	001999AMSL	SURFACE	USN	318
W72(13)B	FAA, WASHINGTON, DC ARTCC	Cherry Point Range Complex	UNLTD	FL600	USN	318
W72(1A)	FAA, WASHINGTON, DC ARTCC	Cherry Point Range Complex	UNLTD	SURFACE	USN	482
W72(1B)	FAA, WASHINGTON, DC ARTCC	Cherry Point Range Complex	UNLTD	SURFACE	USN	647
W72(1C)	FAA, WASHINGTON, DC ARTCC	Cherry Point Range Complex	UNLTD	SURFACE	USN	733
W72(1D)	FAA, WASHINGTON, DC ARTCC	Cherry Point Range Complex	UNLTD	SURFACE	USN	795
W72(1E)	FAA, WASHINGTON, DC ARTCC	Cherry Point Range Complex	UNLTD	SURFACE	USN	801
W72(1F)	FAA, WASHINGTON, DC ARTCC	Cherry Point Range Complex	UNLTD	SURFACE	USN	889
W72(20)A	FAA, WASHINGTON, DC ARTCC	Cherry Point Range Complex	001999AMSL	SURFACE	USN	313
W72(20)B	FAA, WASHINGTON, DC ARTCC	Cherry Point Range Complex	UNLTD	FL600	USN	313
W72(2A)	FAA, WASHINGTON, DC ARTCC	Cherry Point Range Complex	UNLTD	SURFACE	USN	513
W72(2B)	FAA, WASHINGTON, DC ARTCC	Cherry Point Range Complex	UNLTD	SURFACE	USN	694
W72(2C)	FAA, WASHINGTON, DC ARTCC	Cherry Point Range Complex	UNLTD	SURFACE	USN	790
W72(2D)	FAA, WASHINGTON, DC ARTCC	Cherry Point Range Complex	UNLTD	SURFACE	USN	861
W72(2E)	FAA, WASHINGTON, DC ARTCC	Cherry Point Range Complex	UNLTD	SURFACE	USN	871
W72(2F)	FAA, WASHINGTON, DC ARTCC	Cherry Point Range Complex	UNLTD	SURFACE	USN	972
W72(3A)	FAA, WASHINGTON, DC ARTCC	Cherry Point Range Complex	UNLTD	SURFACE	USN	569
W72(3B)	FAA, WASHINGTON, DC ARTCC	Cherry Point Range Complex	UNLTD	SURFACE	USN	895
W72(3C)	FAA, WASHINGTON, DC ARTCC	Cherry Point Range Complex	UNLTD	SURFACE	USN	1,118
W72(3D)	FAA, WASHINGTON, DC ARTCC	Cherry Point Range Complex	UNLTD	SURFACE	USN	1,274
W72(3E)	FAA, WASHINGTON, DC ARTCC	Cherry Point Range Complex	UNLTD	SURFACE	USN	1,107
R2505	FAA, HI-DESERT TRACON, EDWARDS AFB	China Lake Range Complex	UNLTD	SURFACE	USN	779
R2506	FAA, HI-DESERT TRACON, EDWARDS AFB	China Lake Range Complex	006000AMSL	SURFACE	USN	48
R2524	FAA, HI-DESERT TRACON, EDWARDS AFB	China Lake Range Complex	UNLTD	SURFACE	USN	707
R2510A	FAA, LOS ANGELES ARTCC	El Centro Range Complex	015000AMSL	SURFACE	USN	181
R2510B	FAA, LOS ANGELES ARTCC	El Centro Range Complex	FL400	15000AMSL	USN	124
R2512	FAA, LOS ANGELES ARTCC	El Centro Range Complex	FL230	SURFACE	USN	75
AUSTIN 1 MOA, NV	FAA, SALT LAKE CITY ARTCC	Fallon Range Complex	FL350	00200AGL	USN	2,407
AUSTIN 2 MOA, NV	FAA, SALT LAKE CITY ARTCC	Fallon Range Complex	FL350	00200AGL	USN	843

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2007 SUA Name	Controlling Agency	Range Complex/ Installation Name	Upper Altitude	Lower Altitude	Military Service*	Area (nm²)**
CARSON MOA, NV	FAA, OAKLAND ARTCC	Fallon Range Complex	018000AMSL	00500AGL	USN	131
CHURCHILL HIGH MOA, NV	FAA, OAKLAND ARTCC	Fallon Range Complex	018000AMSL	09000AMSL	USN	63
CHURCHILL LOW MOA, NV	FAA, OAKLAND ARTCC	Fallon Range Complex	009000AMSL	00500AGL	USN	71
GABBS CENTRAL MOA, NV	FAA, OAKLAND ARTCC	Fallon Range Complex	018000AMSL	00100AGL	USN	921
GABBS NORTH MOA, NV	FAA, OAKLAND ARTCC	Fallon Range Complex	018000AMSL	00100AGL	USN	2,695
GABBS SOUTH MOA, NV	FAA, OAKLAND ARTCC	Fallon Range Complex	018000AMSL	00100AGL	USN	286
R4803	FAA, OAKLAND ARTCC	Fallon Range Complex	018000AMSL	SURFACE	USN	28
R4804A	FAA, OAKLAND ARTCC	Fallon Range Complex	018000AMSL	SURFACE	USN	88
R4804B	FAA, OAKLAND ARTCC	Fallon Range Complex	FL350	FL180	USN	88
R4810	FAA, OAKLAND ARTCC	Fallon Range Complex	017000AMSL	SURFACE	USN	87
R4812	FAA, OAKLAND ARTCC	Fallon Range Complex	018000AMSL	SURFACE	USN	107
R4813A	FAA, OAKLAND ARTCC	Fallon Range Complex	018000AMSL	SURFACE	USN	417
R4813B	FAA, OAKLAND ARTCC	Fallon Range Complex	FL350	FL180	USN	417
R4816N	FAA, OAKLAND ARTCC	Fallon Range Complex	018000AMSL	01500AGL	USN	406
R4816S	FAA, OAKLAND ARTCC	Fallon Range Complex	018000AMSL	00500AGL	USN	331
RANCH HIGH MOA, NV	FAA, OAKLAND ARTCC	Fallon Range Complex	013000AMSL	09000AMSL	USN	98
RANCH MOA, NV	FAA, OAKLAND ARTCC	Fallon Range Complex	009000AMSL	00500AMSL	USN	315
RENO MOA, NV	FAA, OAKLAND ARTCC	Fallon Range Complex	018000AMSL	13000AMSL	USN	1,016
BRADY HIGH MOA, TX	FAA, HOUSTON ARTCC	Fort Worth NAS JRB	018000AMSL	06000AMSL	USN	966
BRADY LOW MOA, TX	FAA, HOUSTON ARTCC	Fort Worth NAS JRB	005999AMSL	00500AGL	USN	966
BRADY NORTH MOA, TX	FAA, FORT WORTH ARTCC	Fort Worth NAS JRB	018000AMSL	03600AMSL	USN	156
BROWNWOOD 1 EAST MOA, TX	FAA, FORT WORTH ARTCC	Fort Worth NAS JRB	018000AMSL	07000AMSL	USN	570
BROWNWOOD 1 WEST MOA, TX	FAA, FORT WORTH ARTCC	Fort Worth NAS JRB	018000AMSL	07000AMSL	USN	555
BROWNWOOD 2 EAST MOA, TX	FAA, FORT WORTH ARTCC	Fort Worth NAS JRB	018000AMSL	07000AMSL	USN	457
BROWNWOOD 2 WEST MOA, TX	FAA, FORT WORTH ARTCC	Fort Worth NAS JRB	018000AMSL	07000AMSL	USN	592
BROWNWOOD 3 MOA, TX	FAA, FORT WORTH ARTCC	Fort Worth NAS JRB	018000AMSL	13000AMSL	USN	697
BROWNWOOD 4 MOA, TX	FAA, FORT WORTH ARTCC	Fort Worth NAS JRB	018000AMSL	13000AMSL	USN	321
KINGSVILLE 1 MOA, TX	FAA, HOUSTON ARTCC	GOMEX Range Complex	018000AMSL	08000AMSL	USN	3,324
KINGSVILLE 2 MOA, TX	FAA, HOUSTON ARTCC	GOMEX Range Complex	018000AMSL	13000AMSL	USN	383
KINGSVILLE 3 MOA, TX	FAA, HOUSTON ARTCC	GOMEX Range Complex	018000AMSL	08000AMSL	USN	1,840
KINGSVILLE 4 MOA, TX	FAA, HOUSTON ARTCC	GOMEX Range Complex	018000AMSL	09000AMSL	USN	2,067
PENSACOLA NORTH MOA, FL	FAA, JACKSONVILLE ARTCC	GOMEX Range Complex	018000AMSL	10000AMSL	USN	1,213
PENSACOLA SOUTH MOA, FL	FAA, PENSACOLA TOWER	GOMEX Range Complex	018000AMSL	10000AMSL	USN	1,408

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2007 SUA Name	Controlling Agency	Range Complex/ Installation Name	Upper Altitude	Lower Altitude	Military Service*	Area (nm²)**
R6312(A)	FAA, HOUSTON ARTCC	GOMEX Range Complex	023000AMSL	01000AGL	USN	7
R6312(B)	FAA, HOUSTON ARTCC	GOMEX Range Complex	023000AMSL	SURFACE	USN	67
R6312(C)	FAA, HOUSTON ARTCC	GOMEX Range Complex	023000AMSL	SURFACE	USN	79
W155A	FAA, JACKSONVILLE ARTCC	GOMEX Range Complex	FL600	SURFACE	USN	2,241
W155B	FAA, JACKSONVILLE ARTCC	GOMEX Range Complex	FL600	SURFACE	USN	2,674
W155C	FAA, JACKSONVILLE ARTCC	GOMEX Range Complex	FL600	SURFACE	USN	525
W228A	FAA, HOUSTON ARTCC	GOMEX Range Complex	FL450	SURFACE	USN	1,319
W228B	FAA, HOUSTON ARTCC	GOMEX Range Complex	FL450	SURFACE	USN	1,124
W228C	FAA, HOUSTON ARTCC	GOMEX Range Complex	FL450	SURFACE	USN	3,604
W228D	FAA, HOUSTON ARTCC	GOMEX Range Complex	FL450	SURFACE	USN	1,937
W92	FAA, HOUSTON ARTCC	GOMEX Range Complex	FL400	SURFACE	USN	2,607
R1002	CDR, NS Guantanamo Bay	Guantanamo Complex	050000AMSL	SURFACE	USN	56
W1001	CDR, NS Guantanamo Bay	Guantanamo Complex	045000AMSL	SURFACE	USN	13,118
R3101	FAA, HONOLULU CERAP	Hawaiian Islands Range Complex	UNLTD	SURFACE	USN	52
R3107	FAA, HONOLULU CERAP	Hawaiian Islands Range Complex	FL180	SURFACE	USN	28
W186	FAA, HONOLULU CERAP	Hawaiian Islands Range Complex	009000AMSL	SURFACE	USN	755
W187	FAA, HONOLULU CERAP	Hawaiian Islands Range Complex	FL180	SURFACE	USN	78
W188	FAA, HONOLULU CERAP	Hawaiian Islands Range Complex	UNLTD	SURFACE	USN	35,535
W189	FAA, HONOLULU CERAP	Hawaiian Islands Range Complex	UNLTD	SURFACE	USN	8,003
W190	FAA, HONOLULU CERAP	Hawaiian Islands Range Complex	UNLTD	SURFACE	USN	1,613
W191	FAA, HONOLULU CERAP	Hawaiian Islands Range Complex	003000AMSL	SURFACE	USN	292
W192	FAA, HONOLULU CERAP	Hawaiian Islands Range Complex	UNLTD	SURFACE	USN	3,469
W193	FAA, HONOLULU CERAP	Hawaiian Islands Range Complex	UNLTD	SURFACE	USN	4,558
W194	FAA, HONOLULU CERAP	Hawaiian Islands Range Complex	UNLTD	SURFACE	USN	4,071
W196	FAA, HONOLULU TWR	Hawaiian Islands Range Complex	002000AMSL	SURFACE	USN	91
MAYPORT HIGH MOA, FL	FAA, JACKSONVILLE ARTCC	Jacksonville Range Complex	018000AMSL	03000AMSL	USN	68
MAYPORT LOW MOA, FL	FAA, JACKSONVILLE ARTCC	Jacksonville Range Complex	002999AMSL	00500AMSL	USN	68
PALATKA 1 MOA, FL	FAA, JACKSONVILLE ARTCC	Jacksonville Range Complex	018000AMSL	03000AGL	USN	458
PALATKA 2 MOA, FL	FAA, JACKSONVILLE ARTCC	Jacksonville Range Complex	018000AMSL	03000AGL	USN	280
R2906	FAA, JACKSONVILLE TRACON	Jacksonville Range Complex	014000AMSL	SURFACE	USN	75
R2907A	FAA, JACKSONVILLE ARTCC	Jacksonville Range Complex	FL230	SURFACE	USN	89
R2907B	FAA, JACKSONVILLE ARTCC	Jacksonville Range Complex	009000AMSL	SURFACE	USN	52
R2908	FAA, PENSACOLA TRACON	Jacksonville Range Complex	012000AMSL	SURFACE	USN	52

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2007 SUA Name	Controlling Agency	Range Complex/ Installation Name	Upper Altitude	Lower Altitude	Military Service*	Area (nm^2)**
R2910	FAA, JACKSONVILLE ARTCC	Jacksonville Range Complex	FL230	SURFACE	USN	78
R2910(A)	FAA, JACKSONVILLE ARTCC	Jacksonville Range Complex	009000AMSL	SURFACE	USN	13
R2910(B)	FAA, JACKSONVILLE ARTCC	Jacksonville Range Complex	009000AMSL	SURFACE	USN	26
R2910(C)	FAA, JACKSONVILLE ARTCC	Jacksonville Range Complex	006000AMSL	SURFACE	USN	57
W132A	FAA, JACKSONVILLE ARTCC	Jacksonville Range Complex	UNLTD	SURFACE	USN	1,007
W132B	FAA, JACKSONVILLE ARTCC	Jacksonville Range Complex	FL240	SURFACE	USN	364
W133	FAA, JACKSONVILLE ARTCC	Jacksonville Range Complex	004500AMSL	SURFACE	USN	1,744
W134	FAA, JACKSONVILLE ARTCC	Jacksonville Range Complex	UNLTD	04500AMSL	USN	1,744
W157A	FAA, JACKSONVILLE ARTCC	Jacksonville Range Complex	FL430	SURFACE	USN	8,104
W157B	FAA, JACKSONVILLE ARTCC	Jacksonville Range Complex	FL240	SURFACE	USN	2,311
W157C	FAA, JACKSONVILLE ARTCC	Jacksonville Range Complex	005000AMSL	SURFACE	USN	10,400
W158A	FAA, JACKSONVILLE ARTCC	Jacksonville Range Complex	FL430	SURFACE	USN	5,797
W158B	FAA, JACKSONVILLE ARTCC	Jacksonville Range Complex	FL240	SURFACE	USN	2,800
W158C	FAA, JACKSONVILLE ARTCC	Jacksonville Range Complex	UNLTD	FL430	USN	22,011
W158E	FAA, JACKSONVILLE NAS TRACON	Jacksonville Range Complex	001200AMSL	SURFACE	USN	545
W158F	FAA, JACKSONVILLE NAS TRACON	Jacksonville Range Complex	001700AMSL	01200AMSL	USN	172
W159A	FAA, JACKSONVILLE ARTCC	Jacksonville Range Complex	FL430	SURFACE	USN	1,963
W159B	FAA, JACKSONVILLE ARTCC	Jacksonville Range Complex	FL240	SURFACE	USN	1,039
(RJ)R104	USN, COMAFLOATRAGRUWESTPAC	Japan Range Complex	020000AMSL	SURFACE	USN	606
(RJ)R105	USN, COMAFLOATRAGRUWESTPAC	Japan Range Complex	UNLTD	SURFACE	USN	671
(RJ)R116A	USN, COMAFLOATRAGRUWESTPAC	Japan Range Complex	UNLTD	SURFACE	USN	558
(RJ)R116B	USN, COMAFLOATRAGRUWESTPAC	Japan Range Complex	012000AMSL	SURFACE	USN	464
(RJ)R116C	USN, COMAFLOATRAGRUWESTPAC	Japan Range Complex	009000AMSL	SURFACE	USN	59
(RJ)R121	USN, COMAFLOATRAGRUWESTPAC	Japan Range Complex	035000AMSL	SURFACE	USN	516
(RJR599)A	USN, COMAFLOATRAGRUWESTPAC	Japan Range Complex	UNLTD	SURFACE	USN	6,995
(RJR599)B	USN, COMAFLOATRAGRUWESTPAC	Japan Range Complex	UNLTD	SURFACE	USN	1,449
TORTUGAS MOA, FL	FAA, MIAMI ARTCC	Key West Range Complex	018000AMSL	05000AMSL	USN	1,116
W174A	FAA, MIAMI ARTCC	Key West Range Complex	FL700	SURFACE	USN	3,343
W174B(A)	FAA, MIAMI ARTCC	Key West Range Complex	FL700	SURFACE	USN	10,203
W174B(B)	FAA, MIAMI ARTCC	Key West Range Complex	005500AMSL	SURFACE	USN	211
W174C(A)	FAA, MIAMI ARTCC	Key West Range Complex	FL700	SURFACE	USN	1,001
W174C(B)	FAA, MIAMI ARTCC	Key West Range Complex	005500AMSL	SURFACE	USN	397
W174D	FAA, MIAMI ARTCC	Key West Range Complex	FL700	SURFACE	USN	2,795

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2007 SUA Name	Controlling Agency	Range Complex/ Installation Name	Upper Altitude	Lower Altitude	Military Service*	Area (nm^2)**
W174D(A)	FAA, MIAMI ARTCC	Key West Range Complex	FL700	05500AMSL	USN	431
W174E	FAA, MIAMI ARTCC	Key West Range Complex	010000AMSL	SURFACE	USN	281
W174F	FAA, MIAMI ARTCC	Key West Range Complex	FL700	SURFACE	USN	807
W174G	FAA, MIAMI ARTCC	Key West Range Complex	FL700	SURFACE	USN	457
W465A	FAA, MIAMI ARTCC	Key West Range Complex	FL700	SURFACE	USN	1,474
W465B	FAA, MIAMI ARTCC	Key West Range Complex	FL700	SURFACE	USN	1,452
W465C	FAA, MIAMI ARTCC	Key West Range Complex	FL700	FL210	USN	844
R7201	FAA, GUAM CENTER/RAPCON	Marianas Range Complex	FL600	SURFACE	USN	28
W517	FAA, GUAM CERAP	Marianas Range Complex	UNLTD	SURFACE	USN	8,698
MERIDIAN 1 EAST MOA, MS	FAA, MEMPHIS ARTCC	Meridian Complex	018000AMSL	08000AMSL	USN	709
MERIDIAN 1 WEST MOA, MS	FAA, MEMPHIS ARTCC	Meridian Complex	018000AMSL	08000AMSL	USN	3,936
PINE HILL EAST MOA, MS	FAA, ATLANTA ARTCC	Meridian Complex	018000AMSL	10000AMSL	USN	1,261
PINE HILL WEST MOA, MS	FAA, ATLANTA ARTCC	Meridian Complex	018000AMSL	10000AMSL	USN	1,059
R4404A	FAA, MEMPHIS ARTCC	Meridian Complex	011500AMSL	SURFACE	USN	4
R4404B	FAA, MEMPHIS ARTCC	Meridian Complex	011500AMSL	01200AGL	USN	78
R4404C	FAA, MEMPHIS ARTCC	Meridian Complex	014500AMSL	11500AMSL	USN	78
W105A	FAA, BOSTON ARTCC	Narragansett Range Complex	FL500	SURFACE	USN	10,326
W105B	FAA, BOSTON ARTCC	Narragansett Range Complex	FL180	SURFACE	USN	1,318
W106A	FAA, BOSTON ARTCC	Narragansett Range Complex	003000AMSL	SURFACE	USN	358
W106B	FAA, BOSTON ARTCC	Narragansett Range Complex	008000AMSL	SURFACE	USN	506
W106C	FAA, BOSTON ARTCC	Narragansett Range Complex	010000AMSL	SURFACE	USN	227
W106D	FACSFAC, VACAPES, OCEANA NAS	Narragansett Range Complex	005999AMSL	SURFACE	USN	270
A632A	USN, CORPUS CHRISTI NAS	NAS Corpus Christi	018000AMSL	06000AMSL	USN	2,073
A632B	USN, CORPUS CHRISTI NAS	NAS Corpus Christi	018000AMSL	SURFACE	USN	1,329
A632C	USN, CORPUS CHRISTI NAS	NAS Corpus Christi	018000AMSL	SURFACE	USN	513
A632D	USN, CORPUS CHRISTI NAS	NAS Corpus Christi	010999AMSL	06000AMSL	USN	1,856
A632E	USN, CORPUS CHRISTI NAS	NAS Corpus Christi	008999AMSL	06000AMSL	USN	901
A632F	USN, CORPUS CHRISTI NAS	NAS Corpus Christi	018000AMSL	03000AGL	USN	412
FOOTHILL 1 MOA, CA	FAA, OAKLAND ARTCC	NAS Lemoore	018000AMSL	02000AGL	USN	826
FOOTHILL 2 MOA, CA	FAA, OAKLAND ARTCC	NAS Lemoore	018000AMSL	02000AGL	USN	869
HUNTER HIGH MOA, CA	FAA, OAKLAND ARTCC	NAS Lemoore	018000AMSL	11000AMSL	USN	997
HUNTER LOW A MOA, CA	FAA, OAKLAND ARTCC	NAS Lemoore	010999AMSL	00200AGL	USN	492
HUNTER LOW B MOA, CA	FAA, OAKLAND ARTCC	NAS Lemoore	010999AMSL	02000AGL	USN	147

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2007 SUA Name	Controlling Agency	Range Complex/ Installation Name	Upper Altitude	Lower Altitude	Military Service*	Area (nm²)**
HUNTER LOW C MOA, CA	FAA, OAKLAND ARTCC	NAS Lemoore	010999AMSL	03000AGL	USN	82
HUNTER LOW D MOA, CA	FAA, OAKLAND ARTCC	NAS Lemoore	006000AMSL	01500AGL	USN	207
HUNTER LOW E MOA, CA	FAA, OAKLAND ARTCC	NAS Lemoore	003000AMSL	01500AGL	USN	69
A292	USN, COMTRAWING SIX	NAS Pensacola	003000AMSL	SURFACE	USN	3,440
R3404	FAA, HULMAN TWR, TERRE HAUTE	Naval Ammunitions Depot, Crane	002500AMSL	SURFACE	USN	3
R6611A	FAA, WASHINGTON, DC ARTCC	NAVSEA Dahlgren	FL400	SURFACE	USN	22
R6612	FAA, WASHINGTON, DC ARTCC	NAVSEA Dahlgren	007000AMSL	SURFACE	USN	6
R6613A	FAA, WASHINGTON, DC ARTCC	NAVSEA Dahlgren	FL400	SURFACE	USN	18
W54A	FAA, HOUSTON ARTCC	New Orleans NAS JRB	FL400	SURFACE	USN	1,321
W54B	FAA, HOUSTON ARTCC	New Orleans NAS JRB	FL240	SURFACE	USN	367
W54C	FAA, HOUSTON ARTCC	New Orleans NAS JRB	FL400	FL240	USN	367
W59A	FAA, HOUSTON ARTCC	New Orleans NAS JRB	FL500	05000AMSL	USN	2,527
W59B	FAA, HOUSTON ARTCC	New Orleans NAS JRB	027999AMSL	05000AMSL	USN	3,400
W59C	FAA, HOUSTON ARTCC	New Orleans NAS JRB	FL500	FL280	USN	3,400
R6611B	FAA, WASHINGTON, DC ARTCC	NSWC Dahlgren	FL600	FL400	USN	22
R6613B	FAA, WASHINGTON, DC ARTCC	NSWC Dahlgren	FL600	FL400	USN	18
R5113	FAA, ALBUQUERQUE ARTCC	Office of Naval Research, Atmospheric Sciences	FL450	SURFACE	USN	19
(RO)W173B	USN, CFAO KADENA AB	Okinawa Range Complex	060000AMSL	003000AMSL	USN	1,058
(RO)W173C	USN, CFAO KADENA AB	Okinawa Range Complex	UNLTD	SURFACE	USN	5,026
(RO)W175	USN, CFAO KADENA AB	Okinawa Range Complex	004000AMSL	SURFACE	USN	0
(RO)W181	USN, CFAO KADENA AB	Okinawa Range Complex	004000AMSL	SURFACE	USN	3,501
(RO)W183A	USN, CFAO KADENA AB	Okinawa Range Complex	UNLTD	SURFACE	USN	3,706
(RO)W184	USN, CFAO KADENA AB	Okinawa Range Complex	UNLTD	SURFACE	USN	6,835
(RO)W185	USN, CFAO KADENA AB	Okinawa Range Complex	UNLTD	SURFACE	USN	2,769
R4002	FAA, WASHINGTON, DC ARTCC	Patuxent River Complex	FL220	SURFACE	USN	40
R4005	FAA, WASHINGTON, DC ARTCC	Patuxent River Complex	024999AMSL	SURFACE	USN	316
R4006	FAA, WASHINGTON, DC ARTCC	Patuxent River Complex	024999AMSL	03500AMSL	USN	1,458
R4007	FAA, WASHINGTON, DC ARTCC	Patuxent River Complex	004999AMSL	SURFACE	USN	163
R4008	FAA, WASHINGTON, DC ARTCC	Patuxent River Complex	FL850	FL250	USN	1,300
R4009	FAA, WASHINGTON, DC ARTCC	Patuxent River Complex	012500AMSL	05000AMSL	USN	28
R6609	FAA, WASHINGTON, DC ARTCC	Patuxent River Complex	FL200	SURFACE	USN	125
R2519	FAA, LOS ANGELES ARTCC	Pt. Mugu Range Complex	UNLTD	SURFACE	USN	21
R2535A	FAA, LOS ANGELES ARTCC	Pt. Mugu Range Complex	100000AMSL	SURFACE	USN	63

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2007 SUA Name	Controlling Agency	Range Complex/ Installation Name	Upper Altitude	Lower Altitude	Military Service*	Area (nm²)**
R2535B	FAA, LOS ANGELES ARTCC	Pt. Mugu Range Complex	100000AMSL	SURFACE	USN	37
W289	FAA, LOS ANGELES ARTCC	Pt. Mugu Range Complex	UNLTD	SURFACE	USN	11,787
W289N	FAA, LOS ANGELES ARTCC	Pt. Mugu Range Complex	FL240	SURFACE	USN	108
W290	FAA, LOS ANGELES ARTCC	Pt. Mugu Range Complex	FL800	SURFACE	USN	474
W412	FAA, LOS AGELES ARTCC	Pt. Mugu Range Complex	003000AMSL	SURFACE	USN	376
W532	FAA, LOS ANGELES ARTCC	Pt. Mugu Range Complex	UNLTD	SURFACE	USN	9,506
W537	FAA, LOS ANGELES ARTCC	Pt. Mugu Range Complex	UNLTD	SURFACE	USN	3,079
W60	FAA, LOS ANGELES ARTCC	Pt. Mugu Range Complex	UNLTD	SURFACE	USN	788
W602	FAA, HOUSTON ARTCC	Pt. Mugu Range Complex	FL250	SURFACE	USN	10,451
W61	FAA, LOS ANGELES ARTCC	Pt. Mugu Range Complex	UNLTD	SURFACE	USN	1,472
W260	FAA, OAKLAND ARTCC	San Francisco Range Complex	FL600	SURFACE	USN	5,681
W283	FAA, OAKLAND ARTCC	San Francisco Range Complex	FL600	SURFACE	USN	5,912
W285A	FAA, OAKLAND ARTCC	San Francisco Range Complex	FL450	SURFACE	USN	1,838
W285B	FAA, OAKLAND ARTCC	San Francisco Range Complex	FL450	08000AMSL	USN	745
W513	FAA, OAKLAND ARTCC	San Francisco Range Complex	FL600	SURFACE	USN	574
W291	FAA, LOS ANGELES ARTCC	SOCAL Range Complex	FL800	SURFACE	USN	11,2821
PAMLICO A MOA, NC	FAA, WASHINGTON, DC ARTCC	VACAPES Range Complex	018000AMSL	08000AMSL	USN	227
PAMLICO B MOA, NC	FAA, WASHINGTON, DC ARTCC	VACAPES Range Complex	018000AMSL	08000AMSL	USN	855
R5301	FAA, WASHINGTON ARTCC	VACAPES Range Complex	014000AMSL	SURFACE	USN	6
R5302A	FAA, WASHINGTON, DC ARTCC	VACAPES Range Complex	014000AMSL	SURFACE	USN	11
R5302B	FAA, WASHINGTON, DC ARTCC	VACAPES Range Complex	014000AMSL	00100AGL	USN	67
R5302C	FAA, WASHINGTON, DC ARTCC	VACAPES Range Complex	003000AMSL	00100AGL	USN	11
R5313A	FAA, WASHINGTON, DC ARTCC	VACAPES Range Complex	018000AMSL	SURFACE	USN	21
R5313B	FAA, WASHINGTON, DC ARTCC	VACAPES Range Complex	013000AMSL	00100AGL	USN	78
R5313C	FAA, WASHINGTON, DC ARTCC	VACAPES Range Complex	013000AMSL	00100AGL	USN	22
R5313D	FAA, WASHINGTON, DC ARTCC	VACAPES Range Complex	013000AMSL	00500AGL	USN	61
R5314A	FAA, WASHINGTON, DC ARTCC	VACAPES Range Complex	FL205	SURFACE	USN	46
R5314B	FAA, WASHINGTON, DC ARTCC	VACAPES Range Complex	FL205	00500AGL	USN	58
R5314C	FAA, WASHINGTON, DC ARTCC	VACAPES Range Complex	FL205	00500AGL	USN	53
R5314D	FAA, WASHINGTON, DC ARTCC	VACAPES Range Complex	FL205	SURFACE	USN	3
R5314E	FAA, WASHINGTON, DC ARTCC	VACAPES Range Complex	FL205	SURFACE	USN	5
R5314F	FAA, WASHINGTON, DC ARTCC	VACAPES Range Complex	FL205	00500AGL	USN	22
R5314G	FAA, WASHINGTON, DC ARTCC	VACAPES Range Complex	015000AMSL	00200AGL	USN	44

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2007 SUA Name	Controlling Agency	Range Complex/ Installation Name	Upper Altitude	Lower Altitude	Military Service*	Area (nm^2)**
R5314H	FAA, WASHINGTON, DC ARTCC	VACAPES Range Complex	010000AMSL	00500AGL	USN	77
R5314J	FAA, WASHINGTON, DC ARTCC	VACAPES Range Complex	006000AMSL	01000AGL	USN	211
R6606	FAA, WASHINGTON, DC ARTCC	VACAPES Range Complex	FL510	SURFACE	USN	33
STUMPY POINT MOA, NC	FAA, WASHINGTON, DC ARTCC	VACAPES Range Complex	007999AMSL	SURFACE	USN	123
W110	USN, FACSFAC, VACAPES	VACAPES Range Complex	FL230	SURFACE	USN	1,858
W386	FAA, WASHINGTON, DC ARTCC	VACAPES Range Complex	UNLTD	SURFACE	USN	9,614
W386(A)	FAA, WASHINGTON, DC ARTCC	VACAPES Range Complex	FL230	SURFACE	USN	151
W387A	USN, FACSFAC VACAPES	VACAPES Range Complex	023999AMSL	SURFACE	USN	2,296
W387B	USN, FACSFAC VACAPES	VACAPES Range Complex	UNLTD	FL240	USN	2,296
W50A	FAA, WASHINGTON, DC ARTCC	VACAPES Range Complex	FL750	SURFACE	USN	27
W50B	FAA, WASHINGTON, DC ARTCC	VACAPES Range Complex	FL750	SURFACE	USN	63
W50C	FAA, WASHINGTON, DC ARTCC	VACAPES Range Complex	FL750	SURFACE	USN	33
A680	USN, WHIDBEY NAS APP	Whidbey Island Range Complex	003000AMSL	SURFACE	USN	28
BOARDMAN MOA, OR	FAA, SEATTLE ARTCC	Whidbey Island Range Complex	018000AMSL	04000AMSL	USN	358
CHINOOK A MOA, WA	USN, WHIDBEY IS NAS APP	Whidbey Island Range Complex	005000AMSL	00300AMSL	USN	23
CHINOOK B MOA, WA	USN, WHIDBEY IS NAS APP	Whidbey Island Range Complex	005000AMSL	00300AMSL	USN	33
DOLPHIN NORTH MOA, OR	FAA, SEATTLE ARTCC	Whidbey Island Range Complex	018000AMSL	11000AMSL	USN	5,719
DOLPHIN SOUTH MOA, OR	FAA, SEATTLE ARTCC	Whidbey Island Range Complex	018000AMSL	11000AMSL	USN	1,766
OKANOGAN A MOA, WA	FAA, SEATTLE ARTCC	Whidbey Island Range Complex	018000AMSL	09000AMSL	USN	2,604
OKANOGAN B MOA, WA	FAA, SEATTLE ARTCC	Whidbey Island Range Complex	008999AMSL	00300AGL	USN	961
OKANOGAN C MOA, WA	FAA, SEATTLE ARTCC	Whidbey Island Range Complex	008999AMSL	00300AGL	USN	741
OLYMPIC A MOA, WA	FAA, SEATTLE ARTCC	Whidbey Island Range Complex	018000AMSL	06000AMSL	USN	921
OLYMPIC B MOA, WA	FAA, SEATTLE ARTCC	Whidbey Island Range Complex	018000AMSL	06000AMSL	USN	698
R5701(A)	FAA, SEATTLE ARTCC	Whidbey Island Range Complex	FL200	SURFACE	USN	78
R5701(B)	FAA, SEATTLE ARTCC	Whidbey Island Range Complex	010000AMSL	SURFACE	USN	11
R5701(C)	FAA, SEATTLE ARTCC	Whidbey Island Range Complex	006000AMSL	SURFACE	USN	31
R5701(D)	FAA, SEATTLE ARTCC	Whidbey Island Range Complex	010000AMSL	SURFACE	USN	21
R5701(E)	FAA, SEATTLE ARTCC	Whidbey Island Range Complex	006000AMSL	SURFACE	USN	64
R5706	FAA, SEATTLE ARTCC	Whidbey Island Range Complex	010000AMSL	03500AMSL	USN	107
R6701	USN, WHIDBEY ISLAND NAS APP	Whidbey Island Range Complex	005000AMSL	SURFACE	USN	21
R6703A	FAA, SEATTLE-TACOMA APP	Whidbey Island Range Complex	014000AMSL	SURFACE	USN	14
R6703B	FAA, SEATTLE-TACOMA APP	Whidbey Island Range Complex	005000AMSL	SURFACE	USN	4
R6703C	FAA, SEATTLE-TACOMA APP	Whidbey Island Range Complex	014000AMSL	SURFACE	USN	20

Special Use Airspace Inventory

2007 SUA Name	Controlling Agency	Range Complex/ Installation Name	Upper Altitude	Lower Altitude	Military Service*	Area (nm^2)**
R6703D	FAA, SEATTLE-TACOMA APP	Whidbey Island Range Complex	005000AMSL	SURFACE	USN	5
ROBERTS MOA, CA	FAA, OAKLAND ARTCC	Whidbey Island Range Complex	014999AMSL	00500AGL	USN	87
ROOSEVELT A MOA, WA	FAA, SEATTLE ARTCC	Whidbey Island Range Complex	018000AMSL	09000AMSL	USN	3,149
ROOSEVELT B MOA, WA	FAA, SEATTLE ARTCC	Whidbey Island Range Complex	008999AMSL	00300AGL	USN	2,191
W237A(HI)	FAA, SEATTLE ARTCC	Whidbey Island Range Complex	FL500	FL230	USN	2,039
W237A(LO)	FAA, SEATTLE ARTCC	Whidbey Island Range Complex	FL230	SURFACE	USN	2,039
W237B(HI)	FAA, SEATTLE ARTCC	Whidbey Island Range Complex	FL500	FL230	USN	1,520
W237B(LO)	FAA, SEATTLE ARTCC	Whidbey Island Range Complex	FL230	SURFACE	USN	1,520
W237C	FAA, SEATTLE ARTCC	Whidbey Island Range Complex	UNLTD	SURFACE	USN	1,542
W237D	FAA, SEATTLE ARTCC	Whidbey Island Range Complex	UNLTD	SURFACE	USN	1,631
W237E	FAA, SEATTLE ARTCC	Whidbey Island Range Complex	FL270	SURFACE	USN	1,823
W237F	FAA, SEATTLE ARTCC	Whidbey Island Range Complex	UNLTD	SURFACE	USN	3,904
W237G	FAA, SEATTLE ARTCC	Whidbey Island Range Complex	UNLTD	SURFACE	USN	2,327
W237H	FAA, OAKLAND ARTCC	Whidbey Island Range Complex	FL270	SURFACE	USN	5,902
W237J	FAA, OAKLAND ARTCC	Whidbey Island Range Complex	FL270	SURFACE	USN	4,301
W570	FAA, SEATTLE ARTCC	Whidbey Island Range Complex	FL500	SURFACE	USN	4,485

D Acronym List

AAW	Anti-Air Warfare
ACC	Air Combat Command
ACE	Aviation Combat Element
ACP	Army Campaign Plan
ACUB	Army Compatible Use Buffer
AFB	Air Force Base
AFI	Air Force Instruction
AICUZ	Air Installations Compatible Use Zones
AMW	Amphibious Warfare
ANG	Air National Guard
AO	Administrative Order
APOE	Aerial Port of Embarkation
AR	Army Regulation
ARFORGEN	Army Force Generation
ASUW	Anti-Surface Warfare
ASW	Anit-Submarine
ATR	Atlantic Test Range
BAX	Battle Area Complex
BCS	Battle Command System
BCT	Brigade Combat Team
BLM	Bureau of Land Management
BRAC	Base Realignment and Closure
BSATC	Border State Aviation Training Center
C^2	Command and Control
C2W	Command and Control Warfare
CAA	Clean Air Act
CAF	Combat Air Force
CAS	Close Air Support
CE	Command Element
CERCLA	Comprehensive Environmental Response Compensation and Liability Act
CNIC	Commander, Naval Installations Command
CPLO	Community Plans and Liaison Office
DAFIF	Digital Aeronautical Flight Information File
DAGIR	Digital Air Ground Integration Range
DAMO-TRS	Office of the Deputy Chief of Staff, G-3/5/7, Training Directorate, Training Support Systems Division
DCA	Defensive Counterair
DENIX	Defense Environmental Network Information eXchange
DHRA	Defense Human Resources Activity
DMPRC	Digital Multipurpose Range Complex
DMPTR	Digital Multipurpose Training Range
DoD	Department of Defense
DoDD	Department of Defense Directive

DoDI	Department of Defense Instruction
DOT&E	Director, Operational Test and Evaluation
DRRS	Defense Readiness Reporting System
DUSD(I&E)	Office of the Deputy Under Secretary of Defense (Installations & Environment)
DZ	Drop Zone
EAP	Encroachment Action Plan
EC	Electronic Combat
ECP	Encroachment Control Plan
EIMS	Environmental Information Management System
ENMP	Environmental Noise Management Plan
EO	Executive Order
EPA	Environmental Protection Agency
ESA	Endangered Species Act
EW	Electronic Warfare
FMC	Fully Mission Capable
FRTP	Fleet Response Training Plan
FRP	Fleet Response Program
FWAATS	Fixed Wing Army National Guard Aviation Training Site
FWS	Fish and Wildlife Service
FY	Fiscal Year
GAO	Government Accountability Office
GCE	Ground Combat Element
GDPR	Global Defense Posture Realignment
GIS	Geographic Information System
GWOT	Global War on Terror
HQ	Headquarters
HQDA	Headquarters Department of Army
HQ USAF	Headquarters United States Air Force
HQ USAF/A7CA	Headquarters U.S. Air Force, Office of the Civil Engineer, Asset Management and Operations Division
ICRMP	Integrated Cultural Resource Management Plan
IMAE-TS	United States Army Environmental Command, Training Support Division
INRMP	Integrated Natural Resource Management Plan
IOC	Initial Operational Capability
IPA	Intergovernmental Personnel Act
IPT	Integrated Product Team
ISR	Installation Status Report
IWG	Integrated Working Group
JAEC	Joint Assessment and Enabling Capability
JLUS	Joint Land Use Study
JMETL	Joint Mission Essential Task List
JNTC	Joint National Training Capability
JTT	Joint Tactical Task
LCE	Logistics Command Element
LFTIS	Live Fire Training Investment Strategy
LVC	Live, Virtual, and Constructive
MAGTF	Marine Air-Ground Task Force
MAGTFTC	Marine Air-Ground Task Force Training Center
MAJCOM	Major Command
MBTA	Migratory Bird Treaty Act
MCAGCC	Marine Corps Air Ground Combat Center
MCAS	Marine Corps Air Station
MCB	Marine Corps Base
MCM	Mine Counter Measures
MCO	Marine Corps Order
MCT	Marine Corps Task
MDS	Mission Design Series
MEB	Marine Expeditionary Brigade
MET	Mission Essential Task
METL	Mission Essential Task List
MEU	Marine Expeditionary Unit

MMPA	Marine Mammal Protection Act
MOU	Memorandum of Understanding
MOUT	Military Operations in Urban Terrain
MR	Management Review
MRTFB	Major Range and Test Facility Base
MTR	Military Training Route
MW	Mine Warfare
NACo	National Association of Counties
NAS	National Airspace System
NDAA	National Defense Authorization Act
NGA	National Geospatial-Intelligence Agency
NGO	Non-Governmental Organization
NI	Natural Infrastructure
NIA	Natural Infrastructure Assessment
NM	Nanometer
NMC	Not Mission Capable
NMET	Navy Mission Essential Task
NOLF	Navy Outlying Landing Field
NSO	Northern Spotted Owl
NSW	Naval Special Warfare
OACSIM	Office of the Assistant Chief of Staff for Installation Management
OCA	Offensive Counterair
ODUSD(R)	Office of the Deputy Under Secretary of Defense (Readiness)
OEA	Office of Economic Adjustment
OIPT	Overarching Integrated Product Team
OMFTS	Operational Maneuver from the Sea
ONISTT	Open Net-Centric Interoperability Standards for Test and Training
OODA	Observe-Orient-Decide-Act
OPAREA	Operating Area
OPNAV	Office of the Chief of Naval Operations
OpOrd	Marine Corps Range Operations Order
ORAP	Operational Range Assessment Plan
ORC	Operational Range Clearance
ORIS	Operational Range Inventory Sustainment
OSD	Office of the Secretary of Defense
OUSD(P&R)	Office of the Under Secretary of Defense(Personnel and Readiness)
PCMS	Project by Contract Management System
PMC	Partially Mission Capable
POM	Program Objective Memorandum
PPBE	Planning, Programming, Budgeting, and Execution
QA/QC	Quality Assurance/Quality Control
RAICUZ	Range Air Installations Compatible Use Zones
RAND	Research and Development
RC	Reserve Component
RCD	Required Capabilities Document
RCMP	Range Complex Master Plan
RCRA	Resource Conservation and Recovery Act
RDT&E	Research, Development, and Testing and Evaluation
REPI	Readiness and Environmental Protection Initiative
RIE	Range Information Enterprise
RRPB	Requirements Review Prioritization Board
RRPI	Readiness and Range Preservation Initiative
RSEPA	Range Sustainability Environmental Program Assessment
RTAM	Range and Training Area Management
RTAMS	Range and Training Area Management System
RTLS	Range and Training Land Strategy
RTTP	Readiness, Training, Policy & Programs
SBCT	Stryker Brigade Combat Team
SDZ	Surface Danger Zone

SEAD	Suppression of Energy Air Defenses
SERPPAS	Southeast Regional Partnership for Planning and Sustainability
SIP	State Implementation Plan
SOA	Service Oriented Architecture
SOCAL	Southern California Range Complex
SPOE	Seaport of Embarkation
SRI	Sustainable Ranges Initiative
SROC	Senior Readiness Oversight Council
SRP	Sustainable Range Program
STW	Strike Warfare
SUA	Special Use Airspace
T&E	Test & Evaluation
T&R	Training and Readiness
TAP	Tactical Training Theater Assessment Planning
TAPR	Tactical Training Theater Assessment Planning Repository
TC	Training Circular
TCTS	Tactical Combat Training System
TECOM	Training and Education Command
TREIS-T	Training Range Encroachment Information System Tool
TSPI	Time and Space Position Information
TRAMS	Testing Ranges Repository and Management System
TAPR	TAP Repository
TYCOM	Type Commander
U.S.	United States
UJTL	Universal Joint Task List
USAF	United States Air Force
USFF	United States Fleet Forces
USC	United States Code
USJFCOM	United States Joint Forces Command
USMC	United States Marine Corps
UTL	Unit Level Training
UXO	Unexploded Ordnance
VACAPES	Virginia Capes
WGA	Western Governors' Association
WIPT	Working Integrated Product Team
WRP	Western Regional Partnership

E DoD and Service Sustainable Ranges Policy and Guidance

The following tables identify and describe overarching Departmental and Service range sustainment policy and guidance.

Table E-1 Overarching DoD Range Sustainment Policy and Guidance

DoD Range Sustainment Policy and Guidance	Description
DoD Directive 3200.11, Major Range and Test Facility Base (MRTFB)	Establishes policy and assigns responsibilities for the sizing, operation, and maintenance of the MRTFB.
DoD Directive 3200.15, Sustainment of Ranges and Operating Areas	Establishes policy and assigns responsibilities for the sustainment of training and test ranges and OPAREAs in DoD. It includes information and requirements focused on operational and mission requirements, encroachment concerns, data needs, planning and budgeting, range management, and stakeholder involvement.
DoD Instruction 3200.16, Operational Range Clearance	Assigns responsibilities and prescribes procedures for conducting range clearance. It includes information on the use and management of operational ranges in ways that ensure their safety and long-term sustainability, and a requirement to periodically review operational range management policies and procedures to determine the degree and frequency of range clearance required to support DoD's Sustainable Range Management Program.
DoD Directive 4715.11, Environmental and Explosives Safety Management on Operational Ranges Within the United States	Establishes policy and assigns responsibilities for the sustainable use and management of operational ranges located within the United States (U.S.), and for the protection of DoD personnel and the public from explosive hazards on operational ranges located within the U.S. It includes information and requirements focused on managing operational ranges in a manner that maintains readiness, ensures the long-term viability of operational ranges, limits the potential for explosives mishaps and damages, and addresses environmental issues surrounding munitions constituents.
DoD Directive 4715.12, Environmental and Explosives Safety Management on Operational Ranges Outside the United States	Assigns responsibilities for the sustainable use and management of operational ranges located outside the U.S., and for the protection of DoD personnel and the public from explosive hazards on operational ranges located outside the U.S. It includes information and requirements focused on managing operational ranges in a manner that maintains readiness, ensures the long-term viability of operational ranges, limits the potential for explosives mishaps and damages, and addresses environmental issues surrounding munitions constituents.

Table E-1 Overarching DoD Range Sustainment Policy and Guidance (continued)

DoD Range Sustainment Policy and Guidance	Description
DoD Directive 4715.13, Department of Defense Noise Program	Establishes policy and assigns responsibilities for a coordinated DoD Noise Program. It also provides for establishment of a DoD Noise Working Group. For the purposes of this instruction, noise is defined as unwanted sound generated from the operation of military weapons or weapons systems (*e.g.,* aircraft, small arms, tank guns, artillery, missiles, bombs, rockets, mortars, and explosives) that affects either people, animals (domestic or wild), or structures on or in areas in proximity of a military installation; occupational noise exposure and underwater sound associated with ship testing and training activities are specifically excluded from this definition. The program focuses on identifying, researching, and effectively reducing adverse effects from the noise associated with military test and training operations consistent with maintaining military readiness, without degrading mission capabilities.
DoD Instruction 4715.14, Operational Range Assessments	Establishes and implements procedures to assess the potential environmental impacts of military munitions use on operational ranges. The purpose of these procedures is to assist Components in determining whether there has been a release or substantial threat of a release of munitions constituents from operational ranges to off-range areas, and whether that release or substantial threat of a release creates an unacceptable risk to human health or the environment.
DoD Instruction 3030.3, Joint Land Use Study (JLUS) Program	Implements policies, assigns responsibilities, and prescribes procedures for executing the JLUS Program as administered by the Department of Defense, Office of Economic Adjustment (OEA). The purpose of the JLUS Program is to help local communities fund comprehensive plan development to resolve perceived community/ installation land use incompatibilities. The JLUS program also can provide technical and financial assistance to the planning agencies for developing master plans that are consistent (when economically feasible) with the noise, accident potential, and safety concerns of the local installation.

Table E-2 Air Force Range Sustainment Policy and Guidance

Air Force Range Sustainment Policy and Guidance	Description
Transforming the Air Force—The Relevant Range…Enabling Air Force Operations	The Air Force's strategic vision for its ranges and airspace. This document provides guidance for building and sustaining relevant ranges to meet the needs of the warfighter. This document emphasizes the development of comprehensive range planning, which includes MAJCOM roadmaps and individual comprehensive range plans, based upon key investment areas. The investment areas provide the foundation for supporting a relevant range and a mechanism to articulate range and airspace requirements. This document also implements a continuous review process, linked to the programming cycle, to ensure that the vision, policy and guidance, roadmaps, and range management plans remain current and resourced for the future.
Air Force Policy Directive 13-2, Air Traffic Control, Airspace, Airfield, and Range Management	Encourages the sustainment of a flying environment that promotes safety and permits realistic training by providing policies to govern the use of airspace, training weapons ranges, and support facilities and equipment controlled by the Air Force, the Air National Guard (ANG), and the U.S. Air Force Reserve.
Air Force Instruction (AFI) 13-201, Air Force Airspace Management	Provides guidance and procedures for developing and processing Special Use Airspace (SUA). It covers aeronautical matters governing the efficient planning, acquisition, use, and management of airspace required to support Air Force flight operations. It applies to activities that have operational or administrative responsibility for using airspace. It establishes practices to decrease disturbances from flight operations that might cause adverse public reaction, and provides flying unit Commanders with general guidance for dealing with local problems.
AFI 13-212, Range Planning and Operations	Sets forth an integrated operational and engineering approach to range management. It is the primary document governing Air Force planning as it relates to training and test ranges. AFI 13-212 consists of three volumes, each addressing a different aspect of range management: Volume 1, Range Planning and Operations; Volume 2, Range Construction and Maintenance; and Volume 3, SAFE-RANGE Program Methodology.
Operational Range Assessment Plan (ORAP)	Developed to provide Air Force facilities with guidance for consistently completing a defensible assessment of potential environmental impacts to off-range receptors from military munitions used on training and test ranges and range complexes. Headquarters U.S. Air Force, Office of the Civil Engineer, Asset Management and Operations Division (HQ USAF/A7CA) developed the ORAP as part of the Air Force Operational Range Environmental Program. The program's goal is to ensure that the operational range natural infrastructure is capable and available to support the Air Force's test and training mission. In order to ensure the long-term viability of training and test ranges, a standardized and scientifically defensible methodology is required for assessing off-range munitions constituent migration and for responding to any associated threats to human health. This plan complies with requirements set forth in DoDD 4715.11, DoDI 4715.11, and DoDI 4715.12.

Air Force Range Sustainment Policy and Guidance	Description
Operational Range Integrated Program Plan	The Air Force is committed to sustaining its operational training and test ranges. As a demonstration of this commitment, HQ USAF/A7CA developed an Integrated Program Plan to assist Air Force installations with a systematic approach for aligning environmental asset planning and management with mission requirements for training and test ranges. This approach is necessary to satisfy natural infrastructure management responsibilities, a fundamental element of the Air Force's overall Range Sustainment Initiative framework. The time period for the Integrated Program Plan is FY2006 through FY2010. It details the Air Force Operational Range Environmental programmatic vision, mission, overall and specific interim goals, and the near, and mid-term strategic actions required for success. Each strategic objective is documented to include background details, performance measures, and specific steps necessary to accomplish the objective. The plan will be updated annually based on a combination of performance measurement and evaluation and application of the knowledge gained through execution of range sustainment activities.
Air Force Natural Infrastructure Assessment (NIA) Guide *See Update	HQ USAF/A7CA developed a Natural Infrastructure Assessment Guide which was finalized and distributed in FY2007. It provides HQ USAF, MAJCOM, and installations with a methodology for conducting and maintaining the NIA. The NIA provides a series of indicators that illustrates the relative degree of encroachment for each NI asset. These indicators shall be considered by senior leaders, at all levels, in making subsequent management decisions regarding the sustainment, restoration, and modernization of NI assets to support mission requirements within the existing planning, programming, and budgeting system.

Table E-3 Marine Corps Range Sustainment Policy and Guidance

Marine Corps Range Sustainment Policy and Guidance	Description
Marine Corps Range Operations Order (OpOrd)	Will be a comprehensive, Service-level plan to sustain and modernize Marine Corps ranges and training areas. The objective of the OpOrd is to integrate and synchronize range and training area initiatives at Headquarters, Marine Corps and Training and Education Command (TECOM)/RTAM with Marine Corps operational training requirements and range current and planned required capabilities. The OpOrd is a coordinated family of documents that addresses the status of Marine Corps training ranges, their future development, and the administration and resourcing of range management. The OpOrd will include a review of Marine Corps training requirements, Marine Corps range policies and planning initiatives, Marine Corps range capabilities and shortfalls, JNTC and Joint Universal Task List requirements, and other Marine Corps-specific range issues.
Marine Corps Order (MCO) 3550.10, Range Management and Control	Establishes the responsibilities, policies, and procedures pertaining to the safety and management of operational ranges, training areas, and associated training facilities within the Marine Corps. It further defines and describes the functions associated with ranges and training areas, and the responsibilities attendant to those functions.
MCO 3550.9, Range Certification and Recertification	An integral part of the Marine Corps' overarching ground range safety program. Range certification is the function by which safety and environmental compliance are enhanced without compromising training requirements and standards. The order defines the certification and re-certification process that meets an approved set of requirements applicable to an assigned role and mission. Applied appropriately, the range certifications/re-certification will allow for the effective and efficient use of existing training ranges while not compromising safety and the environment.
MCO 3570.1B, Range Safety	Establishes the range safety policies and responsibilities for all Marine Corps ranges and training areas. It establishes the minimum safety standards through Surface Danger Zones (SDZ), and institutes the requirements for individual range safety programs for all live fire and non-live fire ranges and training areas. The order establishes a risk-management process to identify and control range hazards by defining the principles and deviation authorities that control range operations.
MCO 3570.3, Aviation Range Safety	Under development. It will contain policy and procedures to conduct aviation activities at Marine Corps installations. A weapons danger zone tool for mission planning, range management, and environmental oversight will be included.

Table E-4 Navy Range Sustainment Policy and Guidance

Navy Range Sustainment Policy and Guidance	Description
Navy's Mid-Frequency Active Sonar Effects Analysis Interim	Established 6 March 2006. Provides consistent interim policy and internal guidance to Fleet Commanders and other Echelon II commands to assess potential effects of mid-frequency (1 kHz–10 kHz) active sonar use incident to Navy military readiness and scientific research activities. The policy establishes deadlines by which affected commands must develop and submit plans and programming requests to implement this Interim Policy.
OPNAV Instruction 11010.40, *Encroachment Management Program*	Forms the foundation of the Navy's Encroachment Management Program. The instruction defines the roles and responsibilities of certain Navy Commands, defines encroachment challenges and impacts, establishes a database to capture issues, establishes the Encroachment Action Plan process, and establishes the Encroachment Partnering Program.
OPNAV Instruction 3550.1A, *RAICUZ Program*	A joint instruction with the Marine Corps, was updated on 28 January 2008. The revision is to provides more technical details on establishing range compatibility zones and revises the roles and responsibilities within the Department of Navy.
Draft Range Sustainment Policy	Defines roles and responsibilities of Navy Commands with respect to range sustainment and the Navy's TAP programs. The range sustainment policy also establishes deadlines for completion of range sustainment programs to include RSEPA, RCMPs, and environmental planning documents.
Draft Range Sustainability Environmental Program Assessment (RSEPA) Policy Implementation Manual	RSEPA is the Navy's program for assessing the environmental condition of land-based training and test ranges within the U.S. and its territories. The manual outlines roles and responsibilities for the RSEPA program, and establishes standards for how the program should be implemented.

Table E-5 Army Range Sustainment Policy and Guidance

Army Range Sustainment Policy and Guidance	Description
Army Regulation 350-19, *The Army Sustainable Range Program*	Published in August 2005 by the Office of the Deputy Chief of Staff G3. The regulation defines responsibilities and prescribes policies for implementing the Sustainable Range Program (SRP) on Army controlled training and test ranges and lands. The regulation assigns responsibilities and provides policy for programming, funding, and execution of the Army's SRP, which is made up of its two core programs: the Range and Training Land Program, which includes range modernization and range operations, and the Integrated Training Area Management Program for land maintenance and repair. The regulation also provides policy and guidance on integrated planning to support sustainable ranges at the installation level, a focused Outreach Communications Campaign, and tools for identifying and assessing current and future encroachment challenges.