

RANGE AND TRAINING LAND (RTL) DEVELOPMENT PLAN (RDP)
Training Investment Strategy (1998-2002)
Name of Installation

SECTION 1. INTRODUCTION - Provide a brief introductory paragraph that outlines the purpose(s) of the RDP report.

SECTION 2. EXECUTIVE SUMMARY - Provide a brief (not more than 5 pages) summary of findings, conclusions, and recommendations contained in the RDP report. This summary should contain sufficient supported facts that allows the RTL Quality Council and RTL Requirements Review and Prioritization Board (RRPB) to evaluate and prioritize programmatic training needs based on the capabilities, real property inventories (current and projected) and the environmental and safety postures of each installation (include references to appropriate sections of the report for additional information). The completed RDP report should be incorporated into the installation Real Property Master Plan (RPMP) and the Installation Natural Resource Master Plan (INRMP).

SECTION 3. INSTALLATION TRAINING MISSION (PEACETIME & MOBILIZATION)

3.1 General - Provide a brief synopsis that characterizes the geographic surroundings (adjacent towns and cities) and climatic setting of the installation (terrain, climatic seasons) and the economic base (economic influences, major employers) of the area, the amount of current contiguous and non-contiguous training land (owned, lease, permit or under use agreements), and sub-posts assigned under AR 5-10. Identify any existing or planned community development projects within 15 miles of the installation boundary and include appropriate drawings in the operational overlay portion of the RDP report. Identify the transportation system(s) including major highways, airports, navigable rivers, sea ports and points embarkation and debarkation that feed or support the installation. (Recommended primary source for this information is the Installation Real Property Master Plan located in the installation DPW office).

3.2 Peacetime Mission(s) - Provide a brief synopsis of the installation's primary and secondary missions IAW AR 5-10 (consult with installation DCSRM office for detailed information).

3.2.1 Institutional. For installation's with institutional service schools identify in a separate appendix (see the Fort Huntsville sample at Enclosure 1) the courses taught and managed under the Army Training Requirements and Resource System (ATRRS). List these courses by ATRRS course number, course title, course length, and the date of the latest TRADOC approved POI.

3.2.2 Organizational. For installation's supporting organizational units and activities, identify the major Army tenant units (battalion level), and non-tenant Army units (AC/RC) and other Service units that traditionally utilize your installation training facilities and training land in a separate appendix (see the Fort Huntsville sample at Enclosure 2). (Recommended primary sources for this information is the Army Stationing and Installation Plan (ASIP) located in the installation DRM or DPW offices and the DPTM Master Training Schedule).

3.3 Mobilization Mission(s) - Provide a brief synopsis of the installation's assigned mobilization mission(s). (Recommended primary source for this information is the Mobilization Component of the Real Property Master Plan located in the installation DPTM or DPW Mobilization offices).

SECTION 4. ENVIRONMENTAL CONDITIONS, ISSUES, CONSTRAINTS

Provide a brief synopsis of the current and projected environmental conditions, issues, and constraints that impact on the installation's capability to provide realistic range and training land facilities (consult your installation ITAM or environmental coordinator for detailed information). Ensure that the environmental "hot spots" are accurately displayed on the RTL Operational Overlay (see section 7 below) to be submitted with this report.

SECTION 5. TRAINING ASSUMPTIONS

Outline those training assumptions obtained from recent HQDA and MACOM training and resource guidance, base realignment and closure information, known and projected Reserve Component training initiatives, Force Modernization Master Plan Guidance, etc. that are used to generate the findings, conclusions, and recommendations of this RDP report.

SECTION 6. TRAINING ASSET INVENTORY

NOTE 1: Installations assigned management responsibility for sub-installations IAW AR 5-10 must include the following requested information in separate appendices for each sub-installation and incorporate the specific sub-installation data into a consolidated overall installation RDP report.

NOTE 2: Use the rules and definitions (Appendix A) extracted from the latest Defense Installation Ranges and Training Area (DIRT) update and interim AR 415-28 (February 1995) to determine asset facility category codes and area definitions. For areas which may have multiple uses such as non-duded impact areas and/or maneuver training areas, assign the appropriate facility category code based on the primary use of that area. Primary use may be determined by major use, mission related factors, or other reasons determined by the installation. The key rules are that an area can only be counted once and all areas summed must match the total acreage under the direct control or used for training by the installation.

On the spreadsheet titled Training Asset Inventory, list all available ranges, maneuver training areas, and other training facilities according to the six major categories mentioned below (see sample of Fort Huntsville ranges and training areas attached at Enclosure 3). Identify the facility category code, facility category group, associated installation facility name, the number of firing points and/or lanes and total acres for each range asset. For each maneuver training area, quantify the total amount of acres according to one of the three primary use facility category codes (light - 17710, amphibious - 17711, and heavy - 17720). Estimate the amount of usable acres (according to identified primary use) as a percent of the total acres. As an example, deduct the approximate number of unusable acres (estimated from the environmental, topographic, restricted areas consistent with the RTLP Operational Overlay (see section 7 below) from the total to arrive at the estimated percentage of usable training land. In the comment section for each identified range and maneuver training area, quantify the number of acres according to the real estate ownership facility category codes (900 series - Real Estate - see Appendix A). The aggregate total of ownership acres must equal the total acres for each asset. Also, in the comments column, identify the current and/or projected operational status of the facility (active, inactive or dormant); and planned, programmed or projected range and training land modernization projects or upgrades. Attach any special use or specific restrictions that impact on realistic training and operational readiness in a narrative form for each identified training asset. The six major categories are:

6.1 Basic Weapons Marksmanship ranges (include rifle, pistol, grenade launcher, antitank, sniper, shotgun, light machinegun).

6.2 Collective Live-Fire ranges (infantry squad and platoon battle courses, defensive and offensive live-fire ranges, artillery and mortar firing points and observation posts, MPRC-H and MPRC-L complexes (capable of training gunnery tables IX through XII), CALFEX ranges, specified aerial gunnery complexes).

6.3 Direct Fire Gunnery ranges (tank, mechanized infantry, and engineer tables I through VIII - include subcal and gunnery tables I-IV ranges).

6.4 Special and other live-fire ranges (e.g. demolitions, hand grenade, claymore, infiltration courses, etc.).

6.5 Maneuver Training Areas - under the facility name column identify the unit (squad, platoon, company) size best suited or most frequently scheduled to train in that training area.

6.6 Other specified and scheduled non-firing training facility or land (e.g. bivouac sites, assembly/staging areas, drop zones, landing zones, etc.)

SECTION 7 RTLP OPERATIONAL OVERLAY

7.1 General. The RTLP Operational Overlay provides a graphic and narrative portrayal of the operational and environmental characteristics, training assets, and activities of the installation's training complex. The objective of this product is to define and graphically depict the installation's "Gross Training Area" determined by applying the updated training asset inventory developed in section 6 (baseline) - follow the steps below. The "Net Training Area" available for training is graphically depicted by a series of overlays that contain specific land use, topographic, and environmental sensitive, hazardous, and/or restricted areas. This component of the installation RDP report provides a visual means for trainers and decision makers to understand current and future alternatives, projects, and programs needed to maintain an appropriate operational training readiness capability as well as sustain our range and training lands to meet the Army's environmental stewardship responsibilities.

7.2 Products. The RTLP Operational Overlay consists of two major parts - the graphical display of accurate information (developed on a GIS platform or other appropriate mapping techniques and a concise narrative portion that describes the significant information, constraints, and data reflected on the maps and overlays. The standard unit of measure used for all maps and overlays to depict area is acres.

7.3 Methodology. The following steps outline the procedures required to produce the products expected in the RTLP Operational Overlay.

7.3.1 Step 1. Develop a base map or series of maps that graphically depicts all of the land used by the installation for training. This map or series of maps should also realistically display the civilian community(s) and public land holdings within a 15-mile radius contiguous to the boundaries of each installation training complex. On the base map or series of maps distinctively portray the special realty agreements of any training land parcels other than Army owned or managed that exist within, adjacent or negotiated by the installation. These holdings must be consistent with the AR 415-28 Real Estate Facility Category Codes included in the comments section developed in the Training Asset Inventory section 6. In the narrative portion, identify the parties (owners), timelines, restrictions that impact on training realism and installation costs associated with each Memorandums of Agreements, leases, outgrant easements, permits, or special conveyances. Graphically depict the area for each training asset listed in Training Asset Inventory outlined in section 6 consistent with the RTLP definitions and rules included in Appendix A. Ensure that each of the five major training areas (duded impact area(s), non-duded impact area (s), ranges, maneuver training areas (light, heavy, amphibious), and non-training areas are distinctively outlined. The resultant base map or series of maps provide a visual means to portray the "Gross Training Area" available to the installation.

7.3.2 Step 2. Develop a series of overlays that graphically depict the land use, topographic, and environmental zones and areas used to plan and manage training activities. The information required can be portrayed as a composite overlay or a series of layers based the specific conditions and operational issues relevant to the specific installation training needs.

7.3.2.1 Land Use Overlay(s). Develop overlay(s) that depict land use zones and areas outlined below. If the boundaries of these zones and areas cross the installation's boundaries, briefly describe the waivers and negotiated documents that permits the appropriate training in the narrative portion of the RTLP Overlay. Include in this narrative the relevant sources, persons, activities and associated installation costs needed to maintain this training. Include either in the narrative portion or show on the overlay the amount a area (in acres) for each sensitive, restricted, or hazardous area that prohibit training.

- Surface Danger Zone (SDZ). Depict the surface danger zones for all current and projected weapons systems that train on the installation training assets.
- Restricted Areas. Depict all off-limit, designated security and restricted including classified and sensitive areas, and ammunition supply points (ASP). Include the Quality Distance (QD) zones for both permanent and temporary (field) ammunition and munitions sites.
- Airfield Operation Areas. Depict the area associated with the airfield, heliport and helipad clearance areas (e.g. clear zones, approach-departure zones, runway, overruns, and accident potential zones).
- Special Use Airspace (SUA). Depict the restricted airspace (RA), military operations areas (MOA), controlled firing areas (CFA), etc.
- Special Land Uses. Depict location and area used by waste sites, landfills (active and inactive), quarries, disposal and dumpsites, recreational sites, and surface excavation sites (strip mines and gravel rock pits). Also depict all areas/ sites that produce malodorous odors, produce or contain and store hazardous and toxic wastes. All monitoring sites should be depicted.
- Electromagnetic Transmission/Testing Areas. Depict the areas with known potential electromagnetic dangers including high power transmission lines, transformers sites and electrical testing sites.

7.3.2.2 Topographic Overlay(s). Develop overlay(s) that depicts the following topographic zones and areas that constrain or prohibit training. Include either in the narrative portion or show on the overlay the amount of area (in acres) for each sensitive, restricted, or hazardous topographic area that prohibits training.

- Topography. Depict those geographic areas because of elevation, terrain features and other geographic reasons that are excessively steep or incompatible with the training characteristics associated with the designated primary training use (light, heavy or amphibious).
- Soils. Depict those areas exhibiting significant characteristics including highly erodible soils, areas with potential landslide and/or mudslide characteristics, subsidence or collapse, and sinkholes. Also depict those areas that contain known or potential quicksand or other unstable soil, geologic, or land bearing capacities for the designated primary training use.
- Flood Plains/Wetlands. Depict all areas specifically within the 100-year flood plain, designated wetlands and areas with flash flood hazards. Also show the areas, which potentially support aquifer recharge and the locations of all groundwater contamination sites.

7.3.2.3 Environmental Overlay(s). Develop overlay(s) that depicts the following environmentally sensitive, restricted or hazardous areas that constrain or prohibit training. Include either in the narrative portion or show on the overlay the amount of area (in acres) for each area environmental area and briefly describe any conditions and/or waivers that may permit other training activities.

- **Noise Contours.** Depict the noise contours associated with the Installation Compatible Use Zone (ICUZ) study or similar studies, which delineate noise contours associated with the training and other activities conducted on the installation. The major source of the noise contour should be identified and positioned on the layer.
- **Sensitive Natural Areas.** Depict the area(s) with significant sensitive natural conditions including coastal zone management areas, significant seasonal conditions, wilderness areas, and areas with wild or scenic significance.
- **Threatened/Endangered Species.** Depict all restricted/protected/critical habitat areas for plants and animals, which are listed under Endangered Species Act on or adjacent (within 15 mile radius) to the installation boundary. This layer should include all Federal and State candidate species IAW AR 200-3.
- **Archeological/Cultural Sites.** Depict all known or suspected archeological, Native American, cultural and historic sites, places and buildings inside or adjacent (within a 15-mile radius) to the installation boundaries.
- **Air Pollution Sources.** Depict the location and area (if not a site) for all on-post and off-post (within a 15-mile radius) sources of significant air pollution.
- **Natural Resource Extraction Sites.** Depict the location and area (if not classified as a site) for all active and inactive natural resource (natural gas, oil, etc) sites, underground mine entrances, underground storage tanks and associated monitoring sites within the installation's training complex.

7.3.3 Step 3 - From the land use, topographic and environmental overlay(s) and associated narrative descriptions, total the amount of area (in acres) for all sensitive, restricted and hazardous areas and deduct this figure from the "Gross Training Area" figures determined in section 7.3.1 above. This figure is considered the "Net Training Area" available. This figure and any specific causes and recommendations must be included in the Executive Summary portion of the RTLP RDP report.

SECTION 8. TRAINING ASSET UTILIZATION PROFILE

Calculate the annual range and training land utilization profiles for FY95 through FY97 and estimate the utilization profiles for FY99 and FY00.

8.1 General - On the spreadsheet titled, Training Asset Utilization Profile (see the Fort Huntsville samples attached at Enclosure 4), again list all the available ranges, maneuver training areas, and training facilities listed in the DIRT data file according to the six major categories mentioned in section 6 above. The data to be displayed on this spreadsheet is a compilation of the actual utilization of each facility from FY95 through FY97. To complete this spreadsheet, follow the steps outlined below:

8.2 FY95-97 Annual Utilization Profiles - To determine this data, follow the following steps:

8.2.1 Step 1 - Locate the actual utilization data captured by the installation range manager or DPTM in the Range and Facility Management Scheduling System (RFMSS) or other installation management sources for FY95 through FY97.

8.2.2 Step 2 - On the separate spreadsheets provided for each fiscal year (FY95 through FY97), along the horizontal axis of each spreadsheet, identify each using unit/activity according to the following User Groups as outlined below (see the Fort Huntsville samples attached at Enclosure 5):

8.2.2.1 Group A Institutional (Service School) Courses - identify each ATRRS managed course that used installation ranges and training lands for each FY.

8.2.2.2 Group B Organizational Tenant Units - identify all tenant units, organizations and activities that used installation ranges and training lands for each FY.

8.2.2.3 Group C Non-tenant Organizational Units and Activities - identify all non-tenant units, organizations, and activities that used installation ranges and training lands for each FY.

8.2.2.4 Group D Other - identify all other users that used installation ranges and training lands such as force modernization NETT training, weapons testing, local police force training, etc during each FY.

8.2.2.5 Group E Other Activities Impacting on Training Facility Availability - identify all non-training related functions or activities such as closed, scheduled maintenance, forestry operations, land recovery, holidays, unscheduled maintenance or closure, etc., that caused the range or training area to be unavailable for training.

8.2.3 Step 3 - From the RFMSS or other installation range management utilization records, identify the training days used by each course, unit, organization or activity for each range and training area for each fiscal year (FY95-97).

8.2.4 Step 4 - For each User Group (A-D) identified above, total the annual training day usage for each range and training area. Place this figure in the appropriate column of the training Asset Utilization Profile in section 8.1 (Enclosure 4).

8.2.5 Step 5 -To determine the User Group E data, RFMSS and other installation records may need to be compiled. Place the total number of days that each training facility was not available for training in the appropriate User Group E columns by FY.

8.3 Compilation of Actual FY95-97 Data - Follow the steps below to complete the Training Asset Utilization Profile (Enclosure 4) worksheet:

8.3.1 Step 1 - To determine the average annual training usage data, total the figures in the columns for each range and maneuver training facility for FY95 through FY97 and divide by 3. Enter this figure in the column titled AVERAGE USE.

8.3.2 Step 2 - To determine the average days available for training, subtract the User Group E data from 365 for each FY. Add the total days available for each FY and divide by 3. Place this figure in the column titled AVERAGE DAYS AVAILABLE.

8.3.3 Step 3 - To determine the utilization rate for each range and training area for the period FY95 through FY97, divide the AVERAGE USE figure by the AVERAGE DAYS AVAILABLE figure. Enter this number in the column titled UTILIZATION % for each range and maneuver training area.

8.3.4 Step 4 - To determine the average percentage of facility type use, sum the UTILIZATION % data developed in Step 3 (8.3.3) above for each training asset with the same facility category code and divide by the appropriate number of assets. Place this figure in the first training asset with the appropriate facility category code in the column titled FACILITY USE %.

8.4 FY99 and FY00 Utilization Estimates - Estimate the number of annual training days each range and training area will be used during FY99 and FY00 using the following steps (see the Fort Huntsville samples at Enclosure 6):

8.4.1 Step 1 - Estimate the institutional course usage by comparing the User Group A FY95-97 utilization data determined above with the FY99 and FY00 ATRRS course load projections. Place the estimated annual training days in the appropriate columns for User Group A for each FY.

8.4.2 Step 2 - Estimate the organizational tenant unit usage by comparing the User Group B FY95-97 utilization data determined above with known or projected tenant unit force structure at your installation using ASIP data. Place the estimated annual training days in the appropriate columns for User Group B for each FY.

8.4.3 Step 3 - Estimate the non-tenant organizational unit usage by comparing the User Group C FY95-97 utilization data determined above with known or projected training plans, schedules, or initiatives for non-tenant AC/RC, other Service units, organizations and activities that historically train at your installation. Place the estimated annual training days for each range and training area in the appropriate columns for User Group C for each FY.

8.4.4 Step 4 - Estimate the other live-fire and field training usage by comparing the User Group D FY95-97 utilization data determined above with known or projected training plans, schedules, or initiatives at your installation. Place the estimated annual training days for each range and training area in the appropriate columns for User Group D for each FY.

8.4.5 Step 5 - Total the annual estimated range and training land use by summing the figures for each User Group for each FY. Place this figure in the appropriate column titled TOTAL DAYS USED (ESTIMATED) for FY99 and FY00.

8.4.6 Step 6 - Using the FY95-97 Group E and the associated Available Days data, and the known or projected construction, environmental restoration, forestry, holiday, scheduled and unscheduled maintenance schedules for FY99 and FY00, estimate the number of available days each range and training area should be available for use. Place this figure in the appropriate column titled DAYS AVAILABLE (ESTIMATED).

8.4.7 Step 7 - To determine the estimated UTILIZATION % for each range and training area for FY99 and FY00, divide the TOTAL DAYS USED (ESTIMATED) figure by the DAYS AVAILABLE (ESTIMATED) figures for each FY. Enter this figure in the column titled ESTIMATED UTILIZATION % for each range and maneuver training area.

8.4.8 Step 8 - To determine the average percentage of facility type use, sum the ESTIMATED UTILIZATION % data for FY99 and FY00 developed in Step 8.4.7 above for each training asset with the same facility category code and divide by 2 times the appropriate number of assets. Place this figure in the first training asset with the appropriate facility category code in the column titled OVERALL ESTIMATED % FACILITY USE.

SECTION 9. COMPARATIVE ASSET UTILIZATION ANALYSIS

From the utilization data developed in section 8 above, a simplified comparative analysis can be done to determine the number of potential surplus and/or needed facilities.

9.1 Potential Surplus Facilities - Identify those **facilities by type** that have an FACILITY USE % for FY95-97 and an OVERALL ESTIMATED % FACILITY USE for FY99 and FY00 figure of 64% or lower (potential facility surplus). For these facilities, installations should consider the following options:

9.1.1 Reclassifying the asset(s) for excessing or disposal action(s).

9.1.2 Placing one or more of the assets into an inactive or dormant status.

9.1.3 De-dudding the range and converting the land into additional maneuver training land or other training needs.

9.1.4 Consolidating and upgrading range capabilities to serve multiple training needs.

9.1.5 Encouraging higher "customer" use.

9.1.6 Fully justifying any planned, programmed, or funded (OMA and/or MCA) construction upgrades or projects in the FY98 POM (POM 00-05) submission IAW the training requirements and throughput procedures outlined in Chapter 3, TC 25-8 dated 25 February 1992.

9.2 Potential Shortage Facilities - Identify those facility types that have an FACILITY USE % for FY95-97 and an OVERALL ESTIMATED % FACILITY USE figure for FY99 and FY00 of 65% or higher (potential facility shortage). For these facilities, installations should consider the following options:

9.2.1 Focus any near term construction upgrades or projects to ensure that these facilities provide realistic and standardized training capabilities.

9.2.2 Justifying the training requirements for any planned, programmed, or funded (OMA and/or MCA) construction upgrades or projects in the FY98 POM submission IAW the simplified training requirements methodologies in the next section of this report.

SECTION 10. TRAINING REQUIREMENTS ANALYSIS

To support the RTLP Quality Council and RTLP Requirements Review and Prioritization deliberations, installations should review previous RDP submissions required by AR 210-21 and other related supporting documentation (e.g. Land Use Requirements Studies contained in TC 25-1). If the installation is proposing a range construction or land acquisition project(s) in their FY98 POM submission, a thorough training requirements analysis **must be completed** as part of this RDP Training Investment Strategy report according to the following criteria:

10.1 Potential Surplus Facilities - For proposed projects in which the Comparative Utilization Analysis demonstrated a potential surplus facility (section 9.1 above), a complete training requirements and review, throughput analysis, and Land Use Requirements Study (LURS) will be completed IAW the procedures contained in Chapters 3 of TC 25-8, Training Ranges dated 25 February 1992 and TC 25-1, Training Land dated 30 September 1991.

10.2 Potential Shortage Facilities - For proposed projects in which the Comparative Utilization Analysis demonstrated a potential facility shortfall (section 9.2 above), a simplified methodology (outlined in the next section) will be completed according to the timelines established by the RTLP Quality Council.

SECTION 11. SIMPLIFIED TRAINING REQUIREMENTS ANALYSIS

In this section of the methodology, a sample installation (Ft Huntsville) is used to represent the steps to be followed and does not represent any data from any active installation. For illustrative purposes, assume that Fort Huntsville is proposing that one of their current Tank Platoon Battle Ranges (facility category code 17866) be upgraded to an automated Multi-Purpose Training Range (MPTR) facility category code (17865) during FY00. Also assume that the FY95-97 AVERAGE % D/U and the Estimated Facility Use figures for FY99 and FY00 are 83% and 94% respectively. To conduct the simplified training requirements analysis, follow the steps below:

11.1 Group A - Institutional (Service School) Methodology - Conduct an analysis of all TRADOC approved POIs to determine annual training day needs by course by type training facility.

11.1.1 Step 1 - On the Institutional Training Requirements - ATRRS Courses spreadsheet (see the Fort Huntsville sample at Enclosure 7), identify all courses carried in ATRRS that use available type facilities and are expected to use the proposed facility. Along the horizontal axis, identify the ATRRS student requirement and input loads for FY95-FY97 and projected for FY99 and FY00.

11.1.2 Step 2 - Determine the annual average student requirement and input loads by summing the FY95-97 loads with the projected FY99 and FY00 loads and divide by 5. Place these figures in the columns titled AV RQMT and AV INPUT.

11.1.3 Step 3 - Identify the optimum class size for each course from the approved TRADOC POI.

11.1.4 Step 4 - Determine the Course Load Factors by dividing the AV RQMT and A INPUT loads by the course optimum class size.

11.1.5 Step 5 - In the upper section of the ATRRS POI Training Requirements spreadsheet (see the Fort Huntsville sample at Enclosure 8), identifies the ATRRS courses that are expected to use the proposed facility in the first column titled ATRRS Course Name. Along the horizontal axis, identify the POI training requirements (training "gates") for each course.

11.1.6 Step 6 - In the appropriate blocks for each course, identifies the POI training requirements in training days per course iteration (POI hours divided by 8 and the ownership period plus the course training event frequency needed to schedule and conduct the same training event IAW the course Master Training Schedule).

11.1.7 Step 7 - In the lower section of the ATRRS POI Training Requirements spreadsheet, identify the appropriate Major Range Category for the proposed project and list all available facilities that support training in that major category. Along the horizontal axis, identify the ATRRS courses that use the available facilities and in the row titled Course Load Factor, place the higher number determined in step 4 (11.1.4) above.

11.1.8 Step 8 - From the figures in upper section of the spreadsheet, transcribe the number of training days for each ATRRS course in the appropriate block for the preferred or most commonly used available facility to conduct training. To calculate the total annual POI training requirement for each available facility, multiply the number of training days for each ATRRS course by the appropriate Course Load factor and sum. Place this figure in column titled TOTAL. The sum of all these calculations represents the number of annual training days needed to support Institutional Training Requirements.

11.1.9 Step 9 - To cross check these figures, in the row titled TOTAL RQMT, multiply the total number of training days for each ATRRS course by the appropriate Course Load Factor. The summation of these figures should match the TOTAL number determined in Step 8 (11.1.8) above.

11.2 Group B - Tenant Organizational (Unit) Training Methodology - Conduct an analysis to determine annual training day needs for range and training areas for all Active Component tenant units down to company/detachment level using training events and strategies resourced in DA Pamphlet 350-38 and DA Pamphlet 350-39 Standards in Weapons Training Commission (STRAC) dated 15 February 1993.

11.2.1 Step 1 - In the upper section of the spreadsheet titled Tenant User Training Requirements Analysis (see Ft Huntsville sample at Enclosure 9), identify all assigned tenant units (MTOE/TDA) down to company/detachment level that trained on available facilities and are expected to train on the proposed facility. This list should include all currently assigned units and those projected for FY99 and FY00. For units scheduled for realignment, activation or restructuring, add a code comprising of fiscal year, month and the letters (R) for realignment, (A) for activation, (S) for organizational restructuring, in the same block identifying the unit (e.g. 9912R means D Troop 5-15th is scheduled to be realigned in December FY99). Include the unit's UIC and STRAC Training Readiness Condition (TRC) level and category code in the appropriate blocks.

11.2.2 Step 2 - Along the horizontal axis of the spreadsheet, identify all STRAC resourced training requirements/events/critical training gates that are trained on existing facilities with the same or similar facility category codes of the proposed project.

11.2.3 Step 3 - In the appropriate blocks, identify the number of training days, to include ownership periods, required by each company/detachment on the existing training facilities to meet annual training requirements resourced by STRAC.

11.2.4 Step 4 - In the lower section of the spreadsheet, identify all of the available facilities used for training and along the horizontal axis titled COURSE TITLE/UNIT/ACTIVITY, again identify all units expected to train on the proposed facility. Transcribe the number of training days determined in step 2 (11.2.2) above and place those figures in the blocks of the preferred or most commonly used available facility. Sum the figures for each available facility and place these numbers in the block titled TOTAL. The summation of all numbers in the TOTAL blocks, represents the total annual training day requirements for all tenant users.

11.2.5 Step 5 - To cross check these figures, in the row titled TOTAL RQMT, calculate the number of training days for each unit. The summation of these figures should match the figure in the TOTAL block determined in Step 4 (11.2.4) above.

11.3 Group C - Non-tenant Organizational (Unit) Training Methodology Conduct an analysis to estimate the annual training day use of installation range and training areas by all non-tenant Active Component, Reserve Component, other service units.

11.3.1 Step 1 - In the upper section of the spreadsheet titled Non Tenant User Estimated Training Requirements Analysis (see the Ft Huntsville sample at Enclosure 10), identify all the AC non-tenant, RC and other Service units that have traditionally used the available facilities and are expected to continue use in FY99 and FY00. Also, identify these units' UIC, and STRAC Training Readiness Condition (TRC) levels, if known.

11.3.2 Step 2 - Along the horizontal axis of the spreadsheet, attempt to identify all of the STRAC resourced training requirements/events/critical training gates similar to Step 2 (11.2.2) above.

11.3.3 Step 3 - Estimate the number of training days, include ownership periods, needed by each non-tenant AC/RC, other service units to meet their annual training requirements at your installation.

11.3.4 Step 4 - In the lower section of the spreadsheet, identify all of the available facilities used for training and along the horizontal axis titled COURSE TITLE/UNIT/ACTIVITY, again identify all units expected to train on the proposed facility. Transcribe the number of training days determined in step 2 (11.3.2) above and place those figures in the blocks of the preferred or most commonly used available facility. Sum the figures for each available facility and place these numbers in the block titled TOTAL. The summation of all numbers in the TOTAL blocks, represents the total annual training day requirements for all non-tenant users.

11.3.5 Step 5 - To cross check these figures, in the row titled TOTAL RQMT, calculate the number of training days for each unit. The summation of these figures should match the figure in the TOTAL block determined in Step 4 (11.3.4) above.

11.4 Group D - Other Live-Fire and Field Training Requirements - Identify other training activities and users (e.g. New Equipment Transition Training-NETT, weapons testing, etc.) that schedule and use the type facility proposed for upgrade and/or construction.

11.4.1 Step 1 - On a separate spreadsheet titled Other Live-Fire Activity Training Requirement Analysis (see the Ft Huntsville sample at Enclosure 11), identify the available facilities and along the horizontal axis identify all other non-POI or STRAC resourced activities that are conducted or expected to be conducted on available facilities similar to the type facility proposed for upgrade and/or construction during FY99 and FY00.

11.4.2 Step 2 - Estimate the number of training days, include ownership periods, on each available facility needed by each of these activities.

11.4.3 Step 3 - Sum the figures for each available facility and place these numbers in the appropriate block under the column titled TOTAL. The summation of all numbers in the TOTAL column represents the total annual training day requirements for all other live-fire and field training activities.

11.4.4 Step 4 - To cross check these figures, in the row titled TOTAL RQMT, calculate the number of training days for each activity. The summation of these figures should match the figure in the TOTAL block determined in Step 3 (11.4.3) above.

11.5 Group E - Other Activities Impacting on Training Facility Availability - Identify the training days for the proposed facility type that are required, planned, and scheduled for other non-training related functions such as recreational services (hunting, community activities); scheduled training complex maintenance; scheduled closed days for Federal, state or local holidays; forestry and other natural/cultural operations; land recovery; cemetery or other historical site maintenance. Also, estimate the number of training days anticipated each annual training year for unscheduled down time due to weather, floods, etc.

11.5.1 Step 1 - On a separate spreadsheet titled Other Activities Impacting on Training Facility Availability (see the Ft Huntsville sample at Enclosure 12), identify the available facilities within the Major Range Category and along the horizontal axis identify all current and projected non-training related functions that impact on the availability of training facilities.

11.5.2 Step 2 - For each function, identify from historical records the number of days unavailable for training for each available training facility.

11.5.3 Step 3 - Sum the figures for each available facility and place these numbers in the appropriate block under the column titled TOTAL. The summation of all numbers in the TOTAL column represents the total annual days required, scheduled, or estimated that impact on training facility availability.

11.5.4 Step 4 - To cross check these figures, in the row titled TOTAL RQMT, calculate the number of days required, scheduled or estimated for each impacting function. The summation of these figures should match the figure in the TOTAL block determined in Step 3 (11.5.3) above.

11.6 Cumulative Training Requirements Analysis - Calculate the total number of cumulative training day requirements for all User Groups based on the previous analyses.

11.6.1 Step 1 - On the spreadsheet titled Cumulative Training Requirements Analysis (see the Ft Huntsville sample at Enclosure 13), identify all available training facilities within the Major Range Category. Under the columns titled Group A through D, transcribe the associated numbers determined in the previous analyses for each facility.

11.6.2 Step 2 - Sum the total annual training day requirements for each User Group (A-D) for each facility and place these figures in the column titled RQD USE.

11.6.3 Step 3 - Transcribe the Group E data determined in step 3 (11.5.3) above for each training facility. Subtract these figures from 365 for each facility and place these numbers in the column titled DAYS AVAIL.

11.6.4 Step 4 - To determine the percentage of days used for each available training facility based on cumulative training requirements, divide the data in the RQD USE column by the data in the DAYS AVAIL column. Place this figure in the RQD % D/U column for each facility. Should the RQD % D/U figure for each type facility be .80 (80%) or higher, there is a potential training shortfall that may be satisfied by the proposed project upgrade or new construction. In the narrative portion of the next section of the report - Alternative Analysis, explain the increased training capacity and the number of training requirements that could be more efficiently conducted with the proposed construction or upgrade project.

SECTION 12 ALTERNATIVES ANALYSIS

In this section, the alternative methods of addressing the surplus and/or shortages that were identified in the Comparative Asset Utilization Analysis and the Training Requirements Analysis sections of this report are to be developed and evaluated. An individual evaluation is to be prepared for each range type (facility category code) or training land identified with having a significant surplus or shortage training capability. The following steps are to be used:

12.1 Step 1 - Identify the facility type and explain the surplus or shortage capabilities and attempt to tie the number of excess or deficient POI and/or STRAC resourced training events.

12.2 Step 2 - Identify and define alternative solutions for satisfying the surplus or shortage facility requirement. Potential solutions could include (but not limited to) modernization, renovation and/or expansion of existing facilities, fielding of current or projected training devices or simulations, use of existing facilities located at other installations, achieving higher utilization of existing assets, construction of a new facility, etc. For each alternative, a brief narrative description of the scope of the alternative is required.

12.3 Step 3 - Develop the rough order of magnitude (ROM) life cycle economic considerations for each potential alternative. Note that an economic analysis is a comparison of the relative costs of the alternatives over time (versus a budget estimate which develops the expected actual cost of an action). Many software packages are available to assist in developing the economic considerations. For example, the package "ECONPAC", available in your installation DPW Master Planner's office, which will develop the cumulative life cycle costs and relative ranking of alternatives based on one time costs (such as construction) and recurring costs (such as operation and maintenance costs, repair costs, travel costs, etc.). For manpower, ammunition, and other associated alternatives not conducive to ECONPAC capabilities, use any known and accepted methods to develop the ROM life cycle considerations.

12.4 Step 4 - Evaluate and prioritize (from best to least) the potential alternatives relative abilities to satisfy the training shortfall and the mission. For each alternative provide a narrative description of the potential positive and negative impacts on mission caused through implementation of the alternative.

12.5 Step 5 - Perform an evaluation similar to the above in regard to the potential environmental issues associated with each potential alternative. The installation ITAM and Natural Resource managers and environmental coordinator should participate in this phase of the analysis. The information placed on the Operational Overlay provides a good start point for the identification of potential environmental impacts and considerations. Evaluate and prioritize (from best to worst) each potential alternative relative cumulative effects and/or impacts that on the environment. For each alternative provide a narrative description of the potential positive and negative impacts on the environment used in the development of the rankings.

12.6 Step 6 - Perform a similar evaluation, prioritizing each potential alternative as it relates to the known or projected planning strategies specific to your installation (such as new equipment fielding or testing, activation or inactivation of units, base realignment and closure actions or proposals, range complex consolidation, Reserve Component training and regional support activities, etc). Potential sources of information for this evaluation are the installation Master Plan, the Force Modernization Master Plan, the Mobilization Master Plan, etc. For each alternative provide a brief narrative description that outlines the rationale for the rankings given.

12.7 Step 7 - Summarize the above evaluations in a matrix that lists each potential alternatives along one axis and the categories of evaluation (mission, economics, environment, and planning strategies) along the other axis. Fill in the numerical priority given for each alternative.

SECTION 13 PREFERRED ALTERNATIVE(S)

Based on the summarization of potential alternatives matrix developed above, select a preferred installation alternative and outline the justification rationale approved by the installation commander or his designated representative. The information contained in this section will be summarized and become the foundation for the Executive Summary, Section 2, of this report.