FINDING OF NO SIGNIFICANT IMPACT FOR INTEGRATED FLIGHT TESTS AT WAKE ATOLL ENVIRONMENTAL ASSESSMENT

AGENCY: Missile Defense Agency
ACTION: Finding of No Significant Impact

BACKGROUND: Pursuant to the National Environmental Policy Act (NEPA); the Council on Environmental Quality regulations for implementing the procedural provisions of NEPA (40 Code of Federal Regulations [CFR] 1500-1508); Department of Defense Directive 4715.9, Environmental Planning and Analysis; 32 CFR Part 989, *Environmental Impact Analysis Process*; Executive Order 12114, Environmental Effects Abroad of Major Federal Actions; and 32 CFR 187, *Environmental Effects Abroad of Major Department of Defense Actions,* the U.S. Air Force (USAF) and the Missile Defense Agency (MDA) prepared an Environmental Assessment (EA) to analyze the impacts of performing Integrated Flight Tests (IFTs) at Wake Atoll and in the surrounding broad ocean area (BOA), which includes offshore waters generally surrounding the atoll. MDA is currently planning to execute a series of IFTs using Wake Atoll and the BOA.

The entire Atoll is within the Wake Island National Historic Landmark and is listed on the National Register of Historic Places. The Department of the Interior, in consultation with the USAF, also created the Wake Island National Wildlife Refuge, which includes some of the atoll's emergent land and adjacent submerged lands. Wake Atoll is also included in the Pacific Remote Islands Marine National Monument (PRIMNM) established by Presidential Proclamations 8336 and 9173. Presidential Proclamation 9173 expanded the seaward limit of the PRIMNM out to the extent of the U.S. Exclusive Economic Zone, or 370 km (200 nm) from the shore baseline of each included unit. Nothing in Proclamation 9173 changed the management of the PRIMNM as specified in Proclamation 8336.

The use of Wake Atoll to support Ballistic Missile Defense System (BMDS) testing, to include test assets such as missile interceptors, missile targets and their associated sensors, has been analyzed in various NEPA documents starting nearly two decades ago. Each of the NEPA analyses have resulted in a Finding of No Significant Impact (FONSI), determining that the proposed actions of target and interceptor launches, missile intercepts, radar use, and other aspects of flight-testing would not significantly affect the quality of the natural or human environment. The analyses in these environmental documents assessed the environmental impacts of missile testing at a tempo of operation significantly higher than this proposed action. For example, the deployment and operation of a Terminal High Altitude Area Defense (THAAD) firing battery at Wake Atoll was first described in the *Final Wake Island Environmental Assessment (EA)*, (U.S. Army Space and Strategic Defense Command, 1994). That document described "...extended range tests of target missiles, defensive missiles, and sensor systems at Wake Island," and analyzed the impacts of 100 flight tests occurring at Wake Atoll over a 6-year period (1994-2000) with an average of 4 to 20 target missiles and interceptors launched each year. The FONSI for that document concluded that no significant impacts would occur from implementation of missile defense launch activities on Wake Island and new missile defense infrastructure improvements.

The *Theater High Altitude Area Defense (THAAD) Pacific Test Flights Environmental Assessment* (MDA, 2002) looked at the launch of up to 50 target missiles from either Wake Island or an island in the Republic of the Marshall Islands over a 4-year period (2005-2010). THAAD intercepts of target missiles over the BOA were also assessed. The use of land based and/or airborne mobile sensors was analyzed in the *Mobile Sensors Environmental Assessment* (MDA, 2005), assuming that land based mobile sensors, such as the THAAD radar, would be used up to 10 times per year at Wake Island. The launch of target missiles and placement of sensors such as AN/TPY-2 on Wake Island, along with intercepts over the BOA was analyzed in the *USAKA/RTS Integrated Flight Test Environmental Assessment* (MDA, 2012). The above NEPA analyses and their impact determinations are summarized, as appropriate, in this EA and are available on MDA's website at: http://www.mda.mil/news/environmental_reports.html.

The *Integrated Flight Tests at Wake Atoll Final Environmental Assessment* is attached and incorporated by reference. The proposed FONSI and the proposed final EA were made available for public comment during the period from March 11 to April 10, 2015. Notices of availability for the proposed FONSI and proposed final EA were posted in public places on Wake Island and hard copies of the documents were made available for review in the Environmental Office on Wake Island. The documents were also made available on the MDA public web site. Electronic copies were provided upon request.

PURPOSE AND NEED: To demonstrate the integrated performance of the BMDS, MDA plans to execute a series of integrated flight tests at and around Wake Atoll. The first integrated flight test mission at Wake Atoll, Flight Test Operational-02 (FTO-02) Event 2 (E2) would be conducted during the fourth quarter of FY 2015 and is analyzed in this EA. FTO-02 E2 would demonstrate the BMDS engagement of short range ballistic missile (SRBM) and medium range ballistic missile (MRBM) threats using Regional/Theater BMDS architecture. Other IFT activities would be conducted in the future to test various combinations of target missiles, interceptors, and sensor systems to demonstrate the performance of the BMDS. Either target missiles or interceptors would be launched from Wake Island during a single test event, but not both. Wilkes and Peale Islands would not be used at all.

Several weeks before FTO-02 E2 takes place, a test of the THAAD system element of the BMDS, designated Flight Test THAAD (FTT)-18, would be conducted, and also is analyzed in this EA.

Each BMDS element has proven its individual effectiveness in flight and ground tests. FTO-02 E2 provides a unique opportunity to demonstrate critical interoperability capabilities of the ship-based Aegis Ballistic Missile Defense (ABMD) and THAAD systems in a live-fire integrated test at Wake Atoll. The continued use of Wake Atoll for future IFT activities would allow demonstration of similar critical interoperability capabilities of other systems. Testing frequency would be on average one flight test per year, but could number as many as 5 flight tests in a given 12-month period.

The attached EA considers all potential impacts of the proposed action and alternatives, including the no-action alternative, both as solitary actions and in conjunction with other

activities. This FONSI summarizes the USAF's and MDA's evaluation of the proposed action and alternatives.

DESCRIPTION OF THE PROPOSED ACTION: MDA proposes to execute system-level flight tests that integrate multiple BMDS components. Integrated flight tests would include up to 5 targets (ballistic missile targets and air-breathing remotely piloted targets) in flight simultaneously. One or more system elements (including ABMD, PATRIOT, and/or THAAD, with their associated Command, Control, Battle Management, and Communication (C2BMC) and sensors) would engage the targets. Intercepts would be planned to occur over the Pacific BOA with intercept debris falling to the ocean surface, possibly in the PRIMNM.

The ABMD, operating in the Pacific BOA near Wake Atoll would use Aegis Standard Missile -2 and -3 (SM-2 and SM-3) to engage SRBM targets, MRBM targets, intermediate range ballistic missile (IRBM) targets, and/or air-breathing targets. PATRIOT would use PATRIOT Advanced Capability-2 (PAC-2) and PAC-3 interceptor missiles to engage SRBM targets and/or air-breathing targets. THAAD would engage SRBM, MRBM, and/or IRBM targets. The PATRIOT and/or THAAD elements would be located on Wake Island.

For test events where THAAD and/or PATRIOT elements are located on Wake Island, targets (including SRBM, MRBM, IRBM, and remotely piloted air-breathing drones) would be dropped from aircraft over the Pacific BOA. Target missiles could be launched from Wake Island for test events when no THAAD or PATRIOT interceptors are launched from Wake Island. To maintain range safety for the area, target missiles and interceptors would not be launched from Wake Island in the same test event. Wake Island could also serve as a forward support area for aircraft supporting the launch of air dropped ballistic missile targets and remotely piloted air-breathing drones.

Integrated flight tests may use a variety of sensors. Radars that could be located at Wake Island include the AN/TPY-2 (Terminal Mode) and AN/MPQ-65 radars that are associated with THAAD and PATRIOT elements, respectively, the AN/TPY-2 (Forward Based Mode), and a high frequency radar. Representative test assets that could be located at Wake Island include the Transportable Telemetry System, Communication 01 Suite, Arnold Engineering Development Center Optics, Early Launch Tracking System, and the DRX41320M X-band radar.

ALTERNATIVES CONSIDERED: The No-action Alternative would be not to conduct integrated flight tests described in the proposed action. The MDA would not be able to demonstrate integrated BMDS effectiveness against SRBM, IRBM, MRBM, and cruise missile threats in an operationally realistic flight test. Previously planned and on-going activities at Wake Atoll and in the BOA would continue.

MDA identified a number of projects intended to repair or improve the existing infrastructure at Wake Island to better support IFTs. Many of these projects involve minor repairs or renovations with a scope of work that can be completed under the existing Base Operation Support contract with on-island personnel. These projects were documented in AF Form 813, *Request for Environmental Impact Analysis* citing appropriate categorical exclusions, as provided for in

32 CFR 989.13, (*Environmental Impact Analysis Process – Categorical Exclusion*) for repair and maintenance activities. The USAF has approved the projects as categorical exclusions that have been completed prior to the activities of the proposed action.

METHODOLOGY: The USAF and MDA analyzed the potential for impacts to those resources for which a potential environmental concern was determined: air quality, airspace, biological resources, cultural resources, geology and soils, hazardous materials and waste, health and safety/electromagnetic radiation, infrastructure and transportation, land use, noise, socioeconomics, visual aesthetics, and water resources and determined that no significant impacts to the natural or human environment are expected from the proposed action. All activities would be carried out in compliance with applicable regulations and requirements.

Impacts to air quality on Wake Atoll would occur as a result of the implementation of the proposed action with the temporary use of generators to power the test assets. Although the proposed action would allow various pollutants to be released into the atmosphere, the emissions and quantities are not expected to violate any federal Ambient Air Quality Standards that may apply to Wake Atoll. Therefore, no significant air quality impacts are anticipated. The impacts on airspace management or air traffic control by the proposed action would be not significant. MDA's tactical footprint totals approximately 6 acres, which is less than 1% of the total Wake Atoll land mass of 1,826 acres. The majority of the footprint consists of existing launch pads and previously disturbed areas and is expected to result in little to no impact to the migratory birds on Wake Atoll. Some minor ground disturbance and vegetation removal is required for the placement and operation of test assets; however, analysis in the proposed final EA explains why the proposed action would not result in an adverse impact on migratory bird populations. While there would be some test components or debris that impact within the PRIMNM, the majority would be small and widely scattered. All proposed activities conducted in the PRIMNM would be performed in a manner that avoids, to the extent practicable and consistent with training requirements, adverse impacts on monument resources and qualities in accordance with Presidential Proclamations 9173 and 8336. Based on prior analyses, such as those for the THAAD interceptor program the potential for launch activities, BOA intercepts, or the use of associated sensors (radars) to affect biological resources such as sea turtles is highly remote.

There are no known prehistoric or traditional resources sites identified on Wake Island and historic military resources will be protected in accordance with the Wake Island Historic Preservation Plan. Because of the programs in place at Wake Atoll to protect cultural resources, impacts from the proposed action would be not significant. On December 22, 2014, the Alaska State Historic Preservation Officer determined no historic properties would be adversely affected by the proposed action. No geologic impacts are anticipated. Hazardous materials and waste would be handled in accordance with the procedures in the Wake Atoll Spill Prevention Control and Countermeasures Plan, so no significant impacts are projected. At radar unit operational locations hazards associated with the proposed action would be limited to worker exposure to radio frequency radiation. Missile launch activities and radar operations associated with the proposed action have been conducted for many years on Wake Island.

While risks will always be present, the use of standard USAF, Occupational Safety and Health Administration regulations and Range Safety procedures minimize the risk. Because best

management practices would be followed during proposed IFT activities, impacts to human health and safety for on island personnel would be negligible. Because the IFT activities only use a small portion of Wake Island and for only a few weeks at a time, no impacts to infrastructure are anticipated from the proposed action; therefore, this resource was not analyzed. The proposed action would not alter the current land use pattern for Wake Island. The use of Wake Island for the placement of radars and missile and target launchers is a normal operation and no impacts to land use are anticipated. Because of Wake Atoll's location, lack of a native population, and occupation by military and contractor personnel, socioeconomics issues are not a factor; therefore, this resource was not analyzed.

PUBLIC REVIEW AND COMMENT: Notices of availability for the proposed FONSI and the proposed final EA were placed in public areas on Wake Island stating hard copies are available for review in the Environmental Office on Wake Island. The documents also were made available on the MDA public web site, http://www.mda.mil/news/environmental_reports.html. Electronic copies were provided upon request. The final EA and the signed FONSI are both available on the MDA public web site.

CONCLUSION: The environmental analysis in the *Integrated Flight Tests at Wake Atoll Proposed Final Environmental Assessment* determined that no significant impacts would occur as a result of the proposed action. Preparation of an Environmental Impact Statement, therefore, is not required. Under the no-action alternative, no environmental consequences associated with the proposed IFTs would occur.

POINT OF CONTACT: The point of contact for questions, issues, and information relevant to the EA is:

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Mr. Fife also can be reached by e-mail at james.fife@us.af.mil.

Attachment
As stated

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APPROVE:

17 Jun 15

FRANK A. FLORES
Colonel, USAF
Commander

Date

APPROVE:

19 May 2015

JOHN H. JAMES, JR.
Executive Director

Date