COMPONENT PLAN D

WAKE ISLAND BIOSECURITY MANAGEMENT PLAN
The following recommendations are provided for updating the October 2012 Wake Island Biosecurity Management Plan:


- Add the following note following the fifth bullet in Section 3.2 (Requirements of the 2009 Environmental Assessment for Addressing the Systematic Eradication of Non-Native Rodents from Wake Atoll):

  Note: The 2012 rat eradication was not successful. The Asian house rat was successfully eradicated, but the Polynesian house rat was not and their population has rebounded. Ongoing efforts to control the rat, including the use of bait stations, are being implemented. Efforts are being made to control the rat population in and around the commensal and marina areas; however these efforts have been very localized with the primary focus on biosecurity as well as health and safety. An approach for a follow-on eradication effort is being developed and evaluated for implementation.

- Throughout the document: Define acronyms when they are first used in the text.

- In Section 4.1 Air: Change the first sentence in the first paragraph to: Air transportation guidelines have been created to ensure that all pilots, loadmasters, and flights transiting through Wake are aware of the ongoing efforts to eradicate rats on the atoll.

- In Section 4.1 Air: In the second to last sentence of the first paragraph insert the following text: A stock of d-Phenothrin aerosol should be available in the Pest Management storage for aircraft disinfection if it is determined to be necessary, as required by the DTR and FCG.

- In section 4.2 in the second sentence of the first paragraph add: No Pest Strips.

- In Section 5.2 Prescreening: Add a bullet after bullet # 4 stating: All closed containers should include two No Pest Strips (20% dichlorvos).

- In Section 5.2 Prescreening: Add a bullet after bullet # 7 (7 after adding the bullet for No Pest Strips) stating:
MEMORANDUM FOR RECORD

FROM: 611 ASG/CC

SUBJECT: 2012 Wake Island Biosecurity Management Plan

1. In accordance with Executive Order (EO) 13112, for the prevention and introduction of invasive species, the 611th Air Support Group is pleased to provide this Wake Island Biosecurity Management Plan.

2. The spread of invasive species is now recognized as one of the greatest threats to the ecological and the economic well-being of the planet according to the International Maritime Organization. An invasive species is defined by EO 13112 as a species whose introduction has caused or may cause harm to environmental or human health (National Invasive Species Council, 2008). This biosecurity plan has been created to help the Air Force carry out their responsibilities for the prevention, rapid response and control of non-native species on Wake Island. As global commerce, trade, and travel continue to exist and evolve, so will the need and policies of biosecurity management.

3. Please direct any questions regarding this subject matter to our Natural Resources Program Manager, Mr. Matthew T. Moran at (907) 552-0788 or matthew.moran.3@us.af.mil.

[Signature]

ROBYN M. BURK, Colonel, USAF
Commander

4 Attachments:
1. Wake Island Biosecurity Management Plan
2. Appendix A, DoD Foreign Clearance Guide
3. Appendix B, USPACOM Defense Transportation Regulation Part V Wake Island
4. Appendix C, USAF WI Vessel-Aircraft Rodent Pre-departure Inspection Form
WAKE ISLAND BIOSECURITY MANAGEMENT PLAN

Prepared For

The Department of Defense
U.S. Air Force
611th Air Support Group
611th Civil Engineer Squadron
Joint Base Elmendorf –Richardson, Alaska

October 2012
Edition 3.0
Executive Summary

Two species of rat (*Rattus tanezumi* and *Rattus exulans*) have been documented on Wake Island and the US Air Force (USAF) has taken great strides towards the planning of an aerial and groundbased eradication using anticoagulant baits. It has been hypothesized that *Rattus exulans* arrived aboard early Polynesian voyaging vessels, but many believe the prevailing winds and local currents in that geographical location indicate that a successful voyage to Wake would be rather difficult (Ogden 1999). *Rattus tanezumi* arrived during WWI occupations aboard ships. A successful aerial and ground-based rat eradication operation in May 2012 is an example of a recent and effective biosecurity measure. While this and other baseline preventative measures have been successful, the USAF is committed to creating a stronger or more aggressive approach to biosecurity as it pertains to Wake Atoll and rodents specifically. It is imperative that biosecurity is practiced on and off island (all avenues of introduction) in order to protect the government infrastructure as well as the financial and environmental commitment that has been invested in the island’s eradication program. Furthermore, by creating a sound biosecurity approach, risks to this investment will be protected and the proven methods of rodent interception can be used to develop biosecurity plans for other installations that experience similar incursion risk by the same target species.

A simple definition of biosecurity used by professionals in the field of pest control and rodent eradication is as follows: protecting an island (or secure area) from a target pest (Browne 2005). Protection can be further divided into operational components such as prevention, detection, and incursion response (Russell 2008). Each of the three components previously mentioned have associated practices or best management practices (BMP’s) which have resulted in the successful protection of islands around the world.

The discipline of biosecurity is ever changing and researchers have experimented with numerous techniques in an effort to create barriers that are 100% impassable to species including rodents. Unfortunately, a valid biosecurity plan cannot be built upon one component or tool, but rather it must address reinvansion with an array of barriers that have displayed a high value of efficacy in other scenarios. Practitioners benefit from tailoring their biosecurity plans to the species most likely to reinvade, but in some cases predicting every potential invader is not possible. By practicing sound biosecurity, the USAF will ensure that subsequent incursions of non-native rodents will be prevented and the existence of Wake Island as a “rat free” atoll will continue in perpetuity.

The following plan will educate base personnel on the history of the island as it pertains to rodent biology, identification of incursion vectors, methods of prevention, and lastly, an approach for rapid response. Equipment lists, vendors, and points of contact will also be nested within the plan for practitioners to reference and update as base ownership or management changes. It is inherent that the plan be tested in some fashion by conducting incursion simulations to quantify the error rate associated with this plan or in essence to decipher the efficacy of the barriers deployed and frequency of maintenance. Examples of efficacy monitoring and testing will also be mentioned, in order for personnel to evaluate the efficacy of the plan’s rodent barriers.
1.0 WAKE ISLAND BACKGROUND

1.1 Island Location

Wake Island (also commonly referred to as Wake Atoll) is a tiny island in Micronesia lying at approximately 19° 18' North latitude, and 166° 37' East longitude. It is approximately 2,460 mi. (3956 km) west of Honolulu, 1590 mi. (2,545 km) east of Guam, and 690 mi. (1,140 km) north of Kwajalein Atoll.

1.2 Island History and Previous Management

The islands were first discovered in 1568 by Spanish explorers and then were forgotten for more than 200 years. They were rediscovered in 1796 by the British Captain William Wake and explored in 1841 by U.S. Navy Commander Charles Wilkes and naturalist Titian Peale. The islands were claimed by the United States in 1898, with formal possession established in 1899. In 1899 the United States utilized Wake Island as a cable station; today, Wake Island is an unorganized, unincorporated territory of the United States. Executive Order (E.O.) 11048, Part I (September 5, 1962), designated the Secretary of the Interior responsible for the civil administration of the island. The order gave the Secretary all executive, legislative, judicial authority necessary for that administration other than that of the U.S. District Court for the District of Hawaii (DOI, 2007). Because of its unique jurisdictional setting, only federal natural resource and wildlife protection laws apply to Wake Atoll. No state, territorial, or commonwealth natural resource or wildlife protection laws apply (DOI, 1999).

The U.S. Navy was given jurisdiction over the islands in 1934 by President Franklin Roosevelt. Development of the islands did not commence until the following year when Pan American Airlines (PAA) received permission to establish a seaplane refueling base on Peale Island. PAA subsequently built a single-story hotel, rainwater catchments, and several other support buildings and structures to support its weekly trans-Pacific flight service.

Plans were developed in 1938 for an outlying military base on Wake Island; however, construction on the atoll for a submarine and seaplane base by the U.S. Navy did not begin until January 1941. U.S. Marines arrived on the base in August 1941, along with a small Naval contingent. The base was approximately 65 percent complete and supported a population of over 1,700 civilian and military personnel when the Japanese invaded and overran the island in December 1941. The island was occupied by Japanese forces for the remainder of World War II.

The Japanese continued the development of Wake Atoll during their occupation by constructing a runway, support buildings, and a defense system. Allied planes flew approximately 27 bombing missions on the islands during the occupation. Due to frequent bombing by the United States, many of the Japanese structures were constructed underground or embanked. The islands reverted back to American control in September 1945, after the Japanese surrender and the island was then again placed under the jurisdiction of the U.S. Navy.

In 1947, authority over the islands passed from the U.S. Navy to the Civil Aeronautics Administration, which later became the Federal Aviation Administration (FAA). During this time, contractors for the Military Air Transport Services and later the Military Airlift Command (MAC) provided service to transient USAF aircraft while at Wake Atoll. PAA, Trans-Ocean Airlines, British Overseas Airline Corporation, and others reestablished commercial airline services which lasted until 1972. A U.S. Coast Guard Station was established on Peale Island after the war and abandoned in 1971.
Range Aid to Navigation radar facilities were also established by the Coast Guard on Wilkes Island. During the height of post-WW II use of Wake Atoll, the island population was nearly 2,000. An elementary school had been constructed. The school and many of the houses used by the families have since been torn down because of asbestos problems or have fallen into disrepair.

The development of long-range jet aircraft diminished the need for Wake Atoll as a refueling stop for commercial aircraft and, in 1972, the FAA transferred jurisdiction of its facilities on the islands to the USAF. In the agreement effective June 14, 1972, civil administration authority was transferred from the Federal Aviation Administration (FAA) to the U.S. Air Force. The Atoll was operated as Wake Island Airfield by Det 1, 15th Logistics Group, 15th Air Base Wing, Hickam Air Force Base. In 1993, the USAF terminated its operation of Wake Island but retained real property accountability. The U.S. Army operated the airfield from September 30, 1994 until October 1, 2002 when the USAF resumed direct responsibility for island operations.

Presently, the 611th Air Support Group (ASG), based out of Anchorage Alaska operates Wake Atoll. The installation functions in support of contingency deployments, serves as an emergency landing facility, provides fuel storage, and supports the needs of the DoD. The 611th Civil Engineer Squadron (CES) is responsible for the management of natural resources including biosecurity and the rat eradication efforts. The civilian contractor responsible for base island including biosecurity support is Chugach Federal Solutions Inc. (CFSI), also referred to as the Base Operating Support (BOS) contractor.

1.3 Current Island Management

The main mission of Wake Island is to support CORNET WEST missions. At present, the activities provided under the BOS contract include the following:

- Produce potable water and maintain the reverse osmosis systems.
- Maintain and operate the fuel systems.
- Maintain and operate electrical power generation and distribution.
- Maintain food inventory and consumables - provide 2,100 hot meals/wk with a surge capacity of 3,100 meals/wk.
- Provide temporary billeting services for 80 personnel with a surge capacity of 45 personnel.
- Provide fire protection and emergency services.
- Maintain grounds, building, equipment, and vehicles.
- Provide refuse collection operations where collected domestic/recycled waste is transported to the solid waste disposal site in the 1600-area.
- Maintain all heating, cooling, and air conditioning (HVAC) systems.
- Repair and maintain the electrical grid.
- Maintain channel buoys in the marina.
- Maintain long-range radios and other communications.
- Provide services of a full-time, board-certified medical physician.

The 9,850-ft. runway has recently been repaired and is capable of handling most aircraft. The aircraft ramp is configured with eight fueling hydrants fed from the fuel storage tanks in the 1500-area. Wake Atoll receives an AMC-chartered flight every other Friday from Hickam AFB carrying temporary contractors and supplies. Weekly chartered flights have been discontinued. Other supplies, large equipment, and JP-5 fuel are transported to Wake Atoll via ocean-going barge approximately every few months.
Wake Island Airfield has three distinct areas of activity: the airport, the industrial area, and “downtown”. The airport consists of a 9,850-foot runway, supporting taxiways, tarmacs, airport terminal, and various navigational aids. The industrial area includes aviation and airfield maintenance shops, fire and rescue, aircraft fueling support facilities, Civil Engineering, and supply and warehouse buildings. Other industrial facilities in the area include shops, water collection, and distribution centers. The downtown area supports housing, a cafeteria, a laundromat, medical, retail, and recreational buildings (CSS, 2006).

Current mission impacts include following on the natural environment of Wake Island; potential disturbance to or taking of the birds by aircraft operations and by tenant organizations, potential damage from past and present uses of hazardous materials, lack of adequate wastewater treatment, and the removal of historic objects from areas designated under National Historic Landmark status. Each of these impacts is discussed in more detail below.

2.0 BIRD and MAMMAL POPULATIONS ON WAKE ISLAND

It was not until after the feral cats of Wake Island were eradicated that the seabird species richness and population sizes began to increase. Recent surveys were conducted by the Endangered Species Recovery Council (Ogden 1999) and Rauzon and Gilardi (2007). The surveys performed within the previous 10 years have recorded 32 bird species on Wake Atoll. Common birds reported by these two surveyors are listed in Table 2-1.

<table>
<thead>
<tr>
<th>TABLE 2-1 COMMON BIRDS of WAKE ATOLL</th>
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<tbody>
<tr>
<td><strong>Diomedeidae</strong></td>
</tr>
<tr>
<td>Laysan albatross</td>
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<tr>
<td>Black-footed albatross</td>
</tr>
</tbody>
</table>

General Layout of Wake Atoll
### Procellariidae
- **Wedge-tailed shearwater**  
  *Puffinus pacificus*
- **Christmas shearwater**  
  *Puffinus nativitatus*

### Fregatidae
- **Great frigatebird**  
  *Fregata minor*

### Phaethontidae
- **White-tailed tropicbird**  
  *Phaethon lepturus*
- **Red-tailed tropicbird**  
  *Phaethon aethereus*

### Sulidae
- **Masked booby**  
  *Sula dactylatra*
- **Brown booby**  
  *Sula leucogaster*
- **Red-footed booby**  
  *Sula sula*

### Laridae
- **Black noddy**  
  *Anous minutus*
- **Brown noddy**  
  *Anous stolidus*
- **White tern**  
  *Gygis alba*
- **Sooty tern**  
  *Sterna fuscata*
<table>
<thead>
<tr>
<th>Charadriiidae</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Grey-backed tern</td>
<td><em>Sterna lunata</em></td>
</tr>
<tr>
<td>Pacific golden plover</td>
<td><em>Pluvialis fulva</em></td>
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<tr>
<th>Scolopacidae</th>
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</thead>
<tbody>
<tr>
<td>Ruddy turnstone</td>
<td><em>Arenaria interpres</em></td>
</tr>
<tr>
<td>Wandering tattler</td>
<td><em>Heteroscelus incanus</em></td>
</tr>
<tr>
<td>Grey-tailed tattler</td>
<td><em>Heteroscelus brevipes</em></td>
</tr>
<tr>
<td>Sanderling</td>
<td><em>Calidris alba</em></td>
</tr>
<tr>
<td>Dunlin</td>
<td><em>Calidris alpine</em></td>
</tr>
<tr>
<td>Sharp-tailed sandpiper</td>
<td><em>Calidris acuminate</em></td>
</tr>
<tr>
<td>Bristle-thighed curlew</td>
<td><em>Numenius tahitiensis</em></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Anatidae</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Pintail Duck</td>
<td><em>Anas acuta</em></td>
</tr>
</tbody>
</table>

# PROTECTED, THREATENED and ENDANGERED SPECIES OF WAKE ISLAND

Federally protected terrestrial biota on Wake Atoll is limited to migratory seabirds and shorebirds. These birds are classified as “migratory” and protected under the Migratory Bird Treaty Act (MBTA) of 1916 (Environmental Assessment Addressing the Systematic Eradication of Rats From Wake Atoll, 15...
AW Hickam AFB 2009). There are no exclusively terrestrial biota, neither plant or animals, federally listed as threatened or endangered under the Endangered Species Act (ESA), currently or reported from Wake Atoll (USFWS 1998).

3.0 IMPETUS for BIOSECURITY

The spread of invasive species is now recognized as one of the greatest threats to the ecological and the economic well-being of the planet (International Maritime Organization). An invasive species is defined by Executive Order (EO) 13112 as a species whose introduction has caused or may cause harm to environmental or human health (National Invasive Species Council, 2008). Biosecurity is a concern to the United States government and the world. This plan has been created to help the Air Force carry out their responsibilities for the prevention, rapid response and control of non-native species on Wake Island. As global commerce, trade and travel continue to exist and evolve so will the need and policies of biosecurity management. This section provides a brief introduction to some of the policies and programs that are currently in place that directly or indirectly address non-native species issues on Wake Atoll.

3.1 NON-NATIVE SPECIES LAWS, POLICIES AND PROTOCOLS

INTERNATIONAL

- The Department of Defense Foreign Clearance Guide (DoD FCG) provides necessary information for aircraft and vessel international mission planning and execution, personnel travel to foreign countries, as well as general information on foreign locations (including Wake Island). This DoD FCS is directive in nature for all DoD and DoD-sponsored travel abroad, travelers must ensure they comply with this Guide. A copy of the DoD FCG, Wake Island section is provided in Appendix A.

- US Pacific Command (USPACOM) Defense Transportation Regulation identifies directives and establishes Customs/Border Clearance requirements and procedures and organizational points of contact responsible. This regulation provides the most up to date overseas customs processes (although Wake Island is a US territory it is included within this regulation). A copy of the Wake Island section of the USPACOM Defense Transportation Regulation can be found in Appendix B.

- The International Plant Protection Convention (IPPC) is an international agreement on plant heath with 177 current signatories (signed by the United States in 1951). The IPPC aims to protect cultivated and wild plants by preventing the introduction and spread of pests (Secretariat of the IPPC).

- The International Maritime Organization (IMO) has been at the front of the international effort by taking the lead on addressing the transfer of aquatic invasive species (AIS) through ship. IMO has done this through the adoption of “guidelines adopted in 1997 for the control and management of ships’ ballast water to minimize the transfer of harmful aquatic organism and pathogens” (IMO, 2011).

NATIONAL

- National Invasive Species Act of 1996 is a reauthorization and amendment to the 1990 Nonindigenous U.S. Aquatic Nuisance Prevention and Control Act of 1990 (P.L. 101-646) which
authorized the National Oceanic and Atmospheric Administration and the U.S. Fish and Wildlife Service to address aquatic invaders. Section 1103 of the 1996 act states that the “Secretary of Defense shall implement a ballast water management program for seagoing vessels of the Department of Defense and Coast Guard (Federal Guidelines for Invasive Species Management on Military Lands).

- The Lacey Act combats trafficking in “illegal” wildlife, fish and plants. Amended by the 2008 Farm Bill, the Lacey Act now among other things makes it unlawful to import certain plants and plant product without an import declaration (United States Department of Agriculture, Animal and Plant Health Inspection Service, 2011).

- The Endangered Species Act of 1973 permits the eradication of non-native species posing a threat to endangered species; furthermore, section 7 of the Endangered Species Act requires Federal agencies to insure that any action authorized, funded or carried out by them is not likely to jeopardize the continued existence of listed species or modify their critical habitat.

- EO 13112 which was established to prevent the introduction of invasive species; provide for their control; and minimize the economic, ecological and human health impacts that invasive species cause. This executive order defines invasive species, requires federal agencies to address invasive species concerns and to not authorize or carry out new actions that would cause or promote the introduction of invasive species, and also established the Invasive Species Council.

AIR FORCE INSTRUCTION (AFI)

- AFI 32-1053, Integrated Pest Management Program. This instruction implements Air Force policy directive (AFPD) 32-10, Installations and Facilities, 27 March 1995, and Department of Defense Instruction (DODI) 4150.7, DOD Pest Management Program, 29 May 2008. The objectives of the AF pest management programs are to meet or exceed DOD pest management Measures of Merit (MoM), and promote and support the following: Military readiness, installation program planning and maintenance, pollution prevention, conservation of natural/cultural resources and environmental compliance and integrated pest management.

- AFI 32-7064, 13.1 Invasive Species Management Policy. Under EO 13112, Invasive Species, February 3, 1000, installations will, to the extent practicable and permitted by law, not authorize, fund, or carry out management actions that are likely to cause the introduction or spread of invasive species. Installations will address invasive species management in the Intergraded Natural Resources Management Plan (INRMP), formulate and implement UINRMP goals and objectives to detect, respond rapidly to, and control populations of invasive species in a cost-effective and environmentally sound manner whenever and wherever practical. Installations will promote native habitats and the restoration of native species in ecosystems that have been invaded. The INRMP goals should also comply with the Federal Invasive Species Council Management Plan and other guidelines promulgated by the Federal Invasive Species Council. Exotic Pest Plant Council (September 17, 2004).

- AFI 32-7064, 13.5 Interagency Cooperation. Installations will implement cooperative agreements, when practicable, with other federal, state, and local government agencies to collaborate efforts for the control of undesirable plant species. Installations are encouraged to participate in state or regional (September 14, 2004).
STATE

Although Wake Atoll is not officially part of the State of Hawaii it was previously managed by the 15th Air Wing based out of Hickam Air Force Base, Honolulu, Hawaii (as discussed in section 1.2 Island History and Previous Management); currently the Senior Airfield Authority (SAA) for Wake is the 611th Air Operation Center (AOC) with the large majority of access to Wake coming directly from Hawaii. Therefore many of the state laws and regulations that govern and manage invasive species in Hawaii are indirectly applicable to Wake Atoll. The AF currently uses the US Dept of Agriculture, State of Hawaii list of Invasive and Noxious Weeds as the baseline for what is invasive flora species on Wake Island; this list can be located at: http://plants.usda.gov/java/noxious?rptType=State&statefips=15. Please note that the list at the above site does not include invasive fauna to Wake Island, the known invasive fauna that threatens Wakes ecosystem currently consists of rodents, and snakes. A more in-depth discussion, evaluation and list of monitoring recommendations will be published in the anticipated 2013 Integrated Natural Resources Management Plan (INRMP).

- In 2006, Act 85 amended by Act 109, Session Laws of Hawaii (SLH) 2006, became permanent law in Chapter 194-2, Hawaiian Revised Statues (HRS), and Invasive Species. This law establishes the interagency Hawaii Invasive Species Council (HISC), the purpose of this council is to coordinate and promote efforts to prevent, eradicate or control invasive species and maintain an overview of the issues related to invasive species in Hawaii. The Hawaii State Legislature authorized the creation of HISC under Act 85, SLH 2003, and stated “the silent invasion of Hawaii by alien invasive species is the single greatest threat to Hawaii’s economy, natural environment, and the health and lifestyle of Hawaii’s people and visitors.”

- Invasive Species Committees of Hawai'i (ISCs) are island-based partnerships of government agencies, non-government organizations, and private businesses working to protect our Islands from the most threatening invasive pests, a total of 34 active targets (Hawaii Invasive Species Council, 2009).

3.2 REQUIREMENTS OF THE 2009 ENVIRONMENTAL ASSESSMENT (EA) FOR ADDRESSING THE SYSTEMATIC ERADICATION OF NON-NATIVE RODENTS FROM WAKE ATOLL

- The EA identifies the practice of biosecurity as a pre-requisite action that must be completed 6 months prior to the application of rodenticide. The eradication is scheduled for May 2012.

- This 2009 EA also states that the United States Fish and Wildlife Service (USFWS) will not engage in an operation without the existence of a biosecurity plan and more importantly, corresponding action on the ground which includes efficacy testing on a continual basis. (15 AW Hickam AFB 2009).

- The EA also discusses not only the issues of invasive species making their way to Wake but also the impetus for ensuring that the Asian House Rat (Rattus tanezumi) does not invade Oahu, given that the species has not been discovered in Hawaii as of yet.

- There have also been known and isolated cases of squirrels, cats, and invasive insects (yellow crazy ants) that have been discovered in cargo shipped to Wake Atoll, which tells us that the current practices of interception are lacking significantly and this document will serve as a comprehensive tool kit to prevent the incursion of new invasive species and the reintroduction of
rodents to the island after the rat eradication is declared successful (two years after bait application which is scheduled for May 2012).

- The milestones create in the 2009 Operational Plan, which is embedded within the EA created by the USAF, CSSI, and Island Conservation is a recipe for eradication success. Major milestones include the installation of an operational gasifier or incinerator to rid the island of accessible municipal waste which contained edible food items for commensal rodents. Garden management, proper waste containment prior to incineration or gasification, and the enactment of this biosecurity guidance are not optional, but rather pre-requisite elements of a carefully planned eradication targeting not only rodents living in natural settings, but also for the elimination of rodents relying on human food sources (commensal).

**4.0 INVASION and REINVASION ROUTES**

The invasion and the reinvasion routes for rats and other invasive species accessing Wake Atoll can be described in three pathways: via air, contracted barge or stranded vessel. Each pathway and the statistical likelihood of invasion and or reinvasion associated with the specific route cannot be quantified, but history has shown that the cargo containers which arrive via an annual barge departing the Fleet Industrial Supply Center (FISC) at Joint Base Pearl Harbor Hickam (JBPHH) are the biggest concern and threat to sustained success.

**4.1 AIR**

Air transportation guidelines have been created to ensure that all pilots, loadmasters, and flights transiting through Wake are aware of the islands status of being rat free. In the event that rodents and or invasive species are discovered prior to departure or in flight, guidelines nested within the Defense Transportation Regulations (DTR) and Foreign Clearance Guide (FCG) will ensure that these invasive species are intercepted via “rapid response” or in some cases a delay in departure will occur until contaminated cargo is removed and the identified threat (mouse, rat, other animal) is captured in the aircraft. Rapid response is discussed in further detail in 7.0. The majority of air cargo destined for Wake via air originates at the AMC cargo facility at JBPHH, which is illuminated 24 hours a day for security reasons however this also helps in the detection and, in some cases, as a deterrent of invasive species. The USAF pest control operators issued a high density of traps and bait stations to this area in 2009 (n= 29 stations). In the event invasive species are not detected or intercepted prior to departure it is the responsibility of the rodent rapid response team to ensure the “stowaway is captured” upon arrival. It is also recommended that the AMC terminal deploy and post lists and pictures of the known invasive flora and fauna within the waiting area of the terminal, education can be a very useful mitigation tool.

It is advantageous to utilize prevention and quarantine to ensure rodents and other invasive species do not invade or re-invade Wake Atoll. A mitigation measure that has proven to be effective elsewhere is a detection canine. Detection canines have been used to detect rats on Motuihe Island after discovery of Norway rat tracks; the female rat was captured as a result of deploying the dog to the island. Rodent dogs can play a key element in prevention and also for rapid response. Rat terriers and terrier mixes have previously been selected as the most appropriate breed for intercepting rats or detecting rats on islands where eradications efforts were carried out.

**4.2 BARGE**

Cargo containers and equipment destined for Wake usually arrive to the FISC in early April of each
year and are shipped to the island using tugs and open aired barges (no engines or quarters are on open aired barges). Rat deflectors, bait stations, traps, and indicators (wax chew blocks, ink cards, and visual inspections) are key elements of a suitable prevention plan or also known as “interception methods”. Biosecurity is not only a practice of due diligence it is the law per Executive Order 13112 and therefore it is vital that contracting officers and project managers including verbiage in contracting documents that include biosecurity measures. The success of the rat eradication and the future invasion of other invasive species on Wake Island will be affected if biosecurity measures via barge contracts are ignored or over looked.

When it comes to the threat of invasive species via a ship or barge it can be helpful to understand that besides the possibility of a species being brought to Wake inside a shipping container or on the deck of a barge, there is also the risk of something unwanted or invasive being introduced through a ships or barges ballast water. Ballast water is essential for safe and efficient modern shipping operations, unfortunately it also poses a serious ecological, economical and health threat due to the multitude of marine species being carried in the ballast water. These species may include bacteria, microbes, small invertebrates, eggs, cysts and larvae of various species. If transferred these species may survive to establish a reproductive population in the new host environment, becoming invasive, out-competing native species and multiplying into pest proportions (IMO, Ballast Water Management 2011). Ships and barges arrive at Wake on a more limited basis compared to aircraft, and with a barge comes an associated contract and or written agreement and that is where the AF has its opportunity to mitigate these potential barge threats to the Wake Island ecosystem. Section 5.2 discusses in further detail recommended verbiage for barge contracts

4.3 STRANDED VESSELS

Wake also services as an emergency mooring site and harbor for small vessels in distress. Yachts or sailors in distress are required to request access to the installation prior to arrival via radio and rapid response teams will be required to inspect vessels moored to the docks. It is advised that the on-site pest control manager access the vessel, deploy interception tools (traps, bait stations, glue boards, as well as indicators blocks) in the event a rodent lives aboard. Bait stations are staged at the dock on Wake 365 days a year and will be baited appropriately prior to any vessel coming to Wake to target invasive species that may exist in the vicinity. It is advised that rat traps are also placed along travel corridors to increase the diligence of interception probability in the event of a stranded vessel is brought dockside.

5.0 PREVENTION

Prevention of a biosecurity breach is going to be your first line of defense for averting an invasive species threat. For Wake Island prevention efforts of the spread of invasive species can be broken down into two elements or tasks; Quarantine and Prescreening. Please refer to the most current Defense Transportation Regulation (DTR) part V for Wake Island to ensure that all biosecurity expectations are being met.

5.1 QUARANTINE

In the biosecurity world, quarantine consist of areas and or facilities that are utilized as staging areas for cargo that maintain a high level of pesticide management at all times. This involves deploying and managing a variety of preventative measures and detection devises that ensure a rodent-free environment. this area is then considered to be a quarantine area. For aircraft this would include the terminal area and baggage holding facilities. To achieve a level of biosecurity necessary to consider
these staging areas to be under “quarantine”, it is recommended that the following activities be conducted on a regular basis:

- Staging areas shall be illuminated 24 hours a day
- A high density of snap traps and or glue boards should be deployment in tamper resistant bait stations, these should be placed inside and outside of all buildings, (rats prefer to run along the perimeter of building walls rather than across wide gaps, bait stations should be placed along walls and in corners)
- All snap traps and glue boards inside the tamper resistant bait stations should be armed with a professional rat attractant
- If the staging area has a certified pesticide applicator on staff or contracted out, it is highly recommended that an EPA approved rodenticide (poison) be used to arm the tamper resistance bait stations. 2nd generation anticoagulant are suggested and compounds shall be alternated to reduce the occurrence of genetic resistance. Contrac (bromadiolone) is currently in use on JBPHH and is both a DOD and state certified pesticide if used according to the label
- Quality assurance inspections should occur at each staging facility quarterly

5.2 PRESCREENING

As containers, baggage and cargo are being staged and prepared to be sent to Wake Island a biosecurity prescreening inspection of all containers, baggage and cargo should occur. An example of the 611 ASG, USAF biosecurity prescreening inspection form is provided in Appendix C, this particular inspection form does not have to be used but it is recommended. If this USAF inspection biosecurity prescreening inspection checklist is not used, the proposed inspection checklist needs to be submitted to the 611 ASG, Natural Resources Program Manager for review and approval. All biosecurity prescreening inspection forms must be submitted for record to the 611 ASG, Natural Resource Program Manager. It is recommended that at a minimum the following biosecurity prescreening activities occur and are accounted for on an inspection form:

- Rat deflector shields or rat guards are be deployed to every line used to secure the vessel to the dock both on departure and arrival legs (Photo Courtesy of US NAVY). Rat guards shall be placed by ship’s company on all mooring lines and other connecting lines such as service lines between the ship, piers, and seawalls immediately upon berthing and during the entire time the vessel lies alongside a pier.
- A high density of snap traps and or glue boards are deployment in tamper resistant bait stations along the dock where ships are tied off, in areas where cargo and containers are being staged, and along the inside and outside of all nearby buildings (rats prefer to run along the perimeter of building walls rather than across wide gaps, bait stations should be placed along walls and in corners)
- All closed containers (minus personal luggage) should be inspected for invasive species
- All closed containers should at a minimum contain a sticky trip and or snap trap that has been armed with a professional rat attractant which is placed inside a tamper proof bait station
- Inspection of cargo placed inside of each container for the presence of feces, urine stains, chewing, or other signs of incursion.
- Areas used to store equipment prior to departure will be lit 24 hrs a day and inspection strips will be maintained to deter rodents from traveling along preferred corridors.

5.3 BARGE CONTRACT LANGUAGE

To ensure the above mentioned prevention measures are required and carried out they should be included in contract language; below is some recommended verbiage:
5.3.1 Upon arrival at FISC-PH or other loading dock; contracted tug(s) and barge(s) shall grant vessel access to a *Government* appointed pest control inspector to verify vessels awarded transport contracts do not show evident sign of rodent infestation. Inspectors shall be appointed by the 611th Civil Engineer Squadron or the 611th Air Support Group Detachment 1 Commander. Inspectors shall be granted access to both the tug and barge any time the vessels are tied up to the dock at FISC-PH or Wake Island in order to ensure vessels are rodent and invasive species free.

Prior to entering port, equipment, supplies, cargo and waste on ships must be inspected to avoid the introduction of non-native and invasive pests into Hawaii and or Wake Island. The introduction of any plant or animal into Hawaii or Wake Island without permission of the Hawaii State Department of Agriculture is prohibited, that includes items that are not taken off the ship. All vessels shall prior to arrival to Hawaii or Wake comply with DOD 4500.9-R, Defense Transportation Regulation Part V.

To prevent the accidental introduction of alien species into Hawaii and Wake Island, all vessels should be especially careful when off loading any equipment, supplies, cargo and waste in Hawaii and on Wake. Vessel inspectors should be on site at all times during the off loading activities on Wake Island. Inspectors should help to ensure that items are inspected for the presence of any alien species, such as snakes, insects, lizards, rodents, ect., prior to being offloaded. No invasive species shall be brought ashore at any time.

State of Hawaii Department of Agriculture inspectors may be invited aboard US Flag vessels to assist with inspection of food stores, plants and animals, and separation of garbage to help protect against the inadvertent importation of an unwanted pest or species into Hawaii and or Wake Island.

The importation of snakes, rodents, fruit flies, gila monsters in any stage of development, other animals, alien, or invasive species that might cause damage to or be injurious or detrimental to agriculture, horticulture, forest of the State or to federally protected, endangered, or threatened species of Hawaii or Wake Island, is prohibited.

- **Discovery of Rat Signs During Dockside Inspection:** If signs of rats are discovered aboard the barge or tug (chew marks on indicator block, trapped animal, presence of tracks, fresh feces) the vessel operator or contractor awarded barge services will, at their own cost, carry out a vessel wide emergency quarantine action to last at least four days. The Barge operator or awarded party shall incur all costs associated with delays or fees associated with late departure due to vessel operator inability to keep rodents off the vessels. It is advised that vessels arriving to the FISC-PH carry out rodent control measures prior to arriving to the FISC so that delays and additional charges are not absorbed by the contracted party.
5.3.2 Emergency Quarantine shall consist of the following actions:

- Mandatory usage of bait stations armed with state and federally approved rodenticide. The Government shall direct barge operator as to which rodenticide is suitable for bait stations. The Government shall direct barge operator to the appropriate spacing and placement of bait stations and other deterrents, in addition to attractants, given the vessels dimensions and layout. Barge operators shall submit their emergency quarantine plan to the Government pest control inspector for review and at any time during the quarantine period the inspector shall be granted access to the vessel(s) to ensure the plan is indeed being completed as written.

- In addition to the deployment of bait stations, armed snap traps and glue boards shall also be placed alongside bait stations in an effort to capture those targets which are neophobic.

- Cargo shall be inspected for fecal matter and incursions (ie. holes in boxes, gnaw marks on plastic equipment, shredded material) by Government appointed pest control inspectors prior to signing off on the success of emergency quarantine actions.

5.3.3 Contractor shall use dock line guards whenever vessel(s) is/are attached to dock.

5.3.4 Vent and scupper openings shall be protected by backing them up with heavy gauge screening to prevent rats from building nests and or accessing vessel.

5.3.5 Screening of all cargo during loading operations. Screening includes discarding or opening all cargo that shows evidence of rat gnawing or access points (holes chewed into cardboard, feces, urine, or rodent carcasses) and repackaging items.

5.3.6 Equipment or cargo staging areas located on Joint Base Pearl Harbor Hickam property shall be investigated for rodent presence and shall be pre-screened and managed for rodent control prior to loading operations. Contracted pest control operators, base wildlife biologists, or base pest control shops shall conduct rodent control in staging areas. The barge operator shall not incur costs associated with rodent inspections prior to loading at Joint Base Pearl Harbor Hickam.

5.3.7 Tug and Barge Voyage Rodent Biosecurity strategies:

- In the event barges and tugs do not contain sign of rodent presence and the Government inspector clears vessels upon inspection, each vessel shall be supplied with bait stations, traps, and glue boards to intercept rodents not discovered during inspection period. These deterrents shall be provided by the Government. Deterrents shall not be provided if the barge fails initial inspection.

- Vessel operators shall grant FISC-PH, Base Operations Support contractor, and US Air Force personnel access to vessels to deploy these materials prior to departure to Wake Island.

- Deterrents shall not be placed in locations which inhibit vessel operation and crew safety.

- FISC-PH and Government appointed contractors shall place one baited station, trap, and glue board into each container that is placed aboard the barge.

6.0 INTERCEPTION and CONTROL

Interception of rodent stowed away in cargo, vessels, or planes can only be accomplished through strict adherence to bait station and trap checks. Peanut butter or cocoa scented plastic chew blocks should
be scattered about cargo staging areas and tied down with wire to locations throughout the staging areas to gain an index of presence for pest control operators to measure the efficacy of their interception methodologies and strength of their quarantine. Food stored at the AMC cargo facility is kept and shall continue to be kept in closed rat proof containers, freezers, and refrigerators which are not accessible to rodents. The FISC ships large equipment, vehicles, and oversized items to Wake, which results in the storage of items in open air environments; for this reason the FISC has been identified as the biggest threat to biosecurity, but this factor can be overcome via the increased usage of the previously mentioned deterrents (above), strict monitoring using indicators, and the benefit of a quarantined travel to wake (8-10 days). Given the lengthy voyage aboard the barge, interception tools will be enticing to rodents which are not intercepted or detected at the FISC. Navy personnel have been notified that proactive rodent control and an increase in the density of rodent traps and bait stations is a pre-requisite for the implementation of the Wake Atoll Rat Eradication. USAF personnel will need to have access to the FISC areas to deploy interception tools and detection devices or materials.

7.0 EARLY DETECTION and RAPID RESPONSE (EDRR)

The eradication records from international and domestic islands do indicate that even with a robust quarantine program (including ample deterrent deployment and efficacy monitoring) incursion (a breach; having got past a barrier) is possible and has occurred. The final stage of biosecurity which is used to eliminate an incursion or re-invasion is rapid response. A Rapid Response Team will need to be established and kept up to date to ensure the containment of an alien species once it has been detected.

Sometime considered the “second line of defense” after prevention, EDRR is a critical component of
any effective invasive species management program. When new invasive species infections are detected, a prompt and coordinated contamination and eradication response can reduce the environmental and economic impacts (US Forest Service, 2006).

EDRR of new or a reinvasion of invasive species will not only make for a successful biosecurity plan, but will result in lower costs and the utilization of less resources. Properly written contracts for barges and quality assurance will also be key factors for ensuring compliance with a good biosecurity plan occurs; resulting in the most cost efficient program.

In 2008 and 2009, the USFWS and associated subcontractors deployed peanut butter flavored wax chew blocks to detect the presence of Norway Rats on Rat Island, Alaska after completing an aerial wide eradication. This inexpensive tool has been selected to use on Hawaiian cargo storage and staging areas. The efficacy of the blocks has been tested on JBPHH and a positive preference has been documented by both house mice and ship rats. Blocks will be deployed to staging areas to gather index data on the presence or absence of small mammals in critical staging areas. Track cards, traps, and glue boards also function as detectors and interception tools simultaneously. Contrac (rodenticide blocks containing bromiadialone) chew blocks deployed to bait stations can indicate the presence of foraging rodents, but often it is difficult to ascertain insect versus mammal feeding on these blocks given they are colored green and do not reflect perfect incisor markings, but plastic chew blocks do. This tool has been highly successful for verifying the presence of rodents in both commensal and natural environments and paraffin is sold in 160 degree melting point formulations to allow for its usage in hot environments. Other forms of detection devices can be explored if wax cannot be procured easily, but efficacy data must be present verify other tools.

It is the fear of every biologist to receive word that an incursion has occurred on an island “cleaned” of an invasive species. Rapid response teams must not only identify the incursion, but must act quickly to ensure the target does not give birth, move further away from the inception point, or introduce disease or foreign ectoparasites to an island free of such organisms. Studies have shown the effective nature of rapid response, but failed attempts have been documented which is why the establishment of quarantine, interception, and quality deterrent tools is so vital to a sound biosecurity program and plan. Trained canines have been documented to be effective in the discovery of incursions and elimination of target species. Other forms of rapid response include grid trapping, hand baiting (in accordance with EPA labels), and the establishment of secondary eradication actions (bait station grids). It is a cost exercise to cover large areas, but regardless of the action selected it is has become a standard in the eradication world to ensure that a minimum radial distance of 1 km be used to extend trapping or baiting efforts beyond the point of incursion (Russell 2008). Rapid response kits will consist of traps, bait stations, and palatable toxic baits; these will be staged at wake atoll 6 months prior to the eradication project. USFWS commensal managers and project managers will train BOS contractors in 2011 and 2012 in order to ensure the on island work force is educated to the point where they can independently react to an incursion event. All sign (feces, hair, blood) or carcasses should be retained for ID by a qualified biologist. This step is not futile as research has proven that rapid response has been successful in many cases; Russell et al have documented the enactment of incursion responses on New Zealand islands and discovered that 85% of incursion responses (using poison or traps) has prevented re-invasion. If the species of interest cannot be identified it is important to utilize tools knows to intercept the widest variety of animals (ie Norway rats are large and in some cases can escape smaller snap trap models when triggered).
8.0 BIOSECURITY LANGUAGE

The following language is used by the New Zealand Department of Conservation to define the different elements of biosecurity and applicable stages of a sound plan (Browne 2005).

1) **Interception**: occurs where a pest is detected in a secured area either on the mainland or island, e.g., quarantine store, wharf, helicopter pad, boat, aircraft, or on the island while unpacking, etc. *Implies: picked up outside a barrier.*

2) **Incursions**: occur where a pest is detected in the wild on an island or steppingstone island. *Implies: a breach; having got past a barrier.*

3) **Establishment**: implies that enough individuals have been detected that breeding is possible, or evidence of breeding or young is detected.

4) **Spread**: spread implies that the pest has already spread over the island at the time of detection.

5) **Suspicion of invasion**: Suspicion of invasion is used where the level of certainty for a possible pest sighting is from:
   - a bird-wreck with possible bites or mauls on it having been recovered;
   - a bird-wreck which doesn’t necessarily have any bites or mauls on it but from where a pest has been reported in the vicinity; or a second-hand report of a pest on the island.

6) **Strait**: body of water between islands or an island and the mainland.

7) **Pest**: An organism which is not wanted on the island or other biologically significant area. Includes both animals and plants.

8) **Eradication**: Completely remove all living examples of the pest from an island (or operational area).

9) **Control**: Reduce the numbers of a pest on an island (or within an operational area) to a level where their impact is minimised or mitigated, when measured against an indicator species.

10) **Quarantine**: Contain the target pest before it reaches the island (or other secure area).

11) **Contingency Operation**: Containing the target pest once it has arrived on the island (or secure area).

12) **Biosecurity**: Protecting an island (or secure area) from a target pest. (It encompasses both quarantine and contingency operations.)

13) **Surveillance**: Active searching for a target pest; it may not involve killing the pest.

14) **Neophobia**: Fear of new things; reference to rats, cats or other pests experiencing new baits, bait stations or traps within their territory.
9.0 WORKS CITED


http://www.biosecurity.govt.nz/

http://www.imo.org/About/Pages/Default.aspx


http://www.fs.fed.us/invasivespecies/controlmgmt/planning.shtml

http://www.cbd.int/agro/treaty.shtml

https://www.fcg.pentagon.mil/fcg.cfm
APPENDIX A

DEPARTMENT OF DEFENSE FOREIGN CLEARANCE GUIDE
SECTION I: GENERAL ENTRY REQUIREMENTS

A. IDENTIFICATION CREDENTIALS FOR OFFICIAL TRAVEL

1. Not applicable.
2. Consult Section III, below, to ensure compliance with requirements for notification and Theater Clearance.

B. IDENTIFICATION CREDENTIALS FOR LEAVE TRAVEL

1. Not applicable.
2. Consult Section IV, below, to ensure compliance with any requirements for Country Clearance, Theater Clearance, and Special Area Clearance (if required).

C. IMMUNIZATIONS AND OTHER MEDICAL REQUIREMENTS

1. For DoD immunization requirements and sources of additional information on immunization, see the Foreign Clearance Manual, C3.1.3 and C3.2.3.

D. IMMIGRATION, CUSTOMS, OR QUARANTINE INSPECTIONS

1. Pets are not permitted on Wake Island.

E. UNIFORM REQUIREMENTS

1. Not applicable.
SECTION II: AIRCRAFT ENTRY REQUIREMENTS

A. CLEARANCE REQUIREMENTS

NOTE 1: Until further notice, USAF use of Wake Island is restricted to contingency operations, emergency diverts, and flights in direct support of activities on the island.

1. Blanket Clearances: None.
2. One-Time Clearances.
   a. Prior permission required (PPR). PPR request procedures and island limitations are published in DoD FLIP Area Planning (AP-3) Pacific-Australia, Antarctica (Oakland FIR-Wake Island).
   b. Wake Island is closed to non-US government aircraft.

B. LEAD-TIME AND VALIDITY

1. Lead-time: 14 days.
2. Clearance valid for: Unstated. For additional information, contact the USDAO.

C. CONTENT OF CLEARANCE REQUEST

1. Prepare and submit the clearance request with APACS at https://apacs.dtic.mil.

D. ROUTE, FLIGHT, AND OTHER OPERATIONAL INFORMATION

1. Wake Island is currently Day Visual Flight Rules (VFR) only.

E. AIRPORTS

1. Enter and depart.

Wake Island/Wake Island Airfield (PWAK)

2. Additional airport information.
   a. Wake Island airfield is in very limited operations (VLO) status. POL servicing is available (JP-5 only) for emergency recoveries, island resupply flights, and contingency operations. No aircraft maintenance is available.
   b. The airfield on Wake Island operates Tuesday through Saturday 0830-1630 local time. Funding and approvals of other periods requires advance approval and issue of PPR.
SECTION III: PERSONNEL ENTRY REQUIREMENTS FOR OFFICIAL TRAVEL

A. CLEARANCE REQUIREMENTS

1. Notification of visit to Wake Island.
   a. Because Wake Island is US territory, Country Clearance is not required. However, DoD and DoD-sponsored travelers must request entry authorization (EA) from the Wake Island Commander.

   (1) Submit all clearance requests (classified and unclassified) via the Aircraft and Personnel Automated Clearance System (APACS).

2. Theater Clearance.
   a. Theater Clearance is not required.

3. Special Area Clearance.
   a. Special Area is not required.

4. Aircrew do not require Personnel Clearance. However, passengers must request Personnel Clearance.

5. The Personnel Clearance requirements in this section apply to official travel only. Refer to Section IV, below, for leave travel. Submit all clearance requests (classified and unclassified) via the Aircraft and Personnel Automated Clearance System (APACS).

B. LEAD-TIME

1. Not applicable.

C. CONTENT OF CLEARANCE REQUEST

1. Prepare and submit the clearance request automatically with APACS at https://apacs.dtic.mil.

2. The required format for a personnel Travel Clearance Request appears here: personnel_clearance2.doc.

3. Theater-specific information for inclusion in the “Theater Specific Information” field under “Country Information” on the “Itinerary” tab in APACS: None.


5. If the Travel Clearance Request is classified, include paragraph markings and downgrade instructions to ensure timely processing. See the Foreign Clearance Manual, Figure C3.F1.

6. If personal information is required (e.g., Social Security number, birthplace), include the marking "Personal Data - Privacy Act of 1974."

SECTION IV: PERSONNEL ENTRY REQUIREMENTS FOR LEAVE TRAVEL

A. CLEARANCE REQUIREMENTS

1. Clearance not required.
2. See IDENTIFICATION CREDENTIALS FOR LEAVE TRAVEL requirements in Section I.B.
3. See IMMUNIZATIONS AND OTHER MEDICAL REQUIREMENTS in section I.C.
4. See IMMIGRATION, CUSTOMS, OR QUARANTINE INSPECTION in section I.D.
5. See OTHER general requirements in section I.F.

B. LEAD-TIME

1. Not applicable.

C. CONTENT OF CLEARANCE REQUEST

1. Theater-specific information for inclusion in the "Theater Required Information" field under "Country Information" on the "Itinerary" tab in APACS.
   a. State that the traveler(s) has submitted the USPACOM Travel Tracker data (TT/IATP) via https://iatp.pacom.mil and have completed the pre-travel training requirements as specified in paragraph III.A.6, DoD Foreign Clearance Guide.

SECTION V: MARITIME ENTRY REQUIREMENTS

A. CLEARANCE REQUIREMENTS

1. No information provided.

B. LEAD-TIME AND VALIDITY

1. No information provided.

C. ADDRESSES FOR CLEARANCE REQUESTS

1. No information provided.

D. CONTENT OF CLEARANCE REQUEST

1. No information provided.

E. NAVIGATION AND OTHER OPERATIONAL INFORMATION

1. No information provided.

F. OTHER

1. No information provided.
SECTION VI: TRAVEL INFORMATION

A. STATE DEPARTMENT TRAVEL ADVISORIES

1. Travel Warnings: None.
2. Travel Alerts: None.

B. AMERICAN EMBASSY

1. Location:
   a. Wake Island is an unincorporated US territory administered by the Department of the Air Force. Activities on Wake Island are conducted by a BOS Contractor.

2. Telecommunications Contact Information:
   a. Phone:
      (1) DSN 315-424-2222.
      (2) COMM 808-424-2222.

3. Hours: The offices on Wake Island are staffed 24 hours a day.
4. Mailing Address: DET 1/CC
   5 Wake Island Bldg 1502, Wake Island, HI. 96898
6. Holidays: Wake Island observes all US holidays except Presidents’ Day and Columbus Day. Wake Island also celebrates Wake Island Day (22 March) and the King of Thailand's birthday. In order to sync with US Holidays, all Friday holidays are celebrated on Saturday and all Monday Holidays are celebrated on Tuesday. Weekday holidays such as Thanksgiving are celebrated as they fall.

C. TIME CONVERSION

1. Local Standard Time is Z + 12.
2. Wake Island does not observe Daylight Savings Time.

D. CUSTOMS REGULATIONS

1. Not applicable.

E. HEALTH PRECAUTIONS

1. Medical support on the island is severely limited. Emergent care and a limited pharmacy is available, but there is no flight surgeon, dental care, or pediatric healthcare.
2. Medical Travel Insurance: All personnel (other than uniform military and civilian expeditionary workforce members) deploying, assigned, attached, or TAD/TDY to Wake Island, to include contract personnel not specifically authorized DoD aeromedical evacuation through their contract, are highly encouraged to have either company provided or private medical travel insurance that
specifically covers international healthcare and international medical evacuation services. Non-uniform personnel should complete DD Form 2569 and bring both this form and proof of insurance with them when traveling to Wake Island. DoDI 6025.23 and DoDI 4515.13R contain specific details regarding the limitations of aeromedical evacuation on non-DoD healthcare beneficiaries. Failure to obtain the appropriate insurance may result in the member being held financially liable for any DoD provided healthcare or aeromedical evacuation expenses.

3. While there are no mosquitoes found on Wake Island, precautions should still be taken to prevent insect bites. Wasps, centipedes, scorpions and rats should be avoided.

F. CURRENCY INFORMATION

1. The US dollar is the currency.

G. CLOTHING RECOMMENDATIONS

1. None reported.

H. TRANSIENT ACCOMMODATIONS

1. Billeting for RON personnel is available on a limited basis with prior coordination and approval WI/CC Wake Island. Billeting, food services, ground transport, and medical services are austere and severely limited. No off-base quarters are available. No common service support is available; all services are rendered on a cash and credit card (VISA) basis. Shortage of billets often requires doubling-up of RON personnel.

I. TRAVEL PRECAUTIONS AND INFORMATION

1. None.
APPENDIX B

US PACIFIC COMMAND DEFENSE TRANSPORTATION REGULATIONS_ PART V_ WAKE ISLAND
APPENDIX B

USPACOM Defense Transportation Regulation

W. WAKE ISLAND

1. All Passengers and Cargo. See the DoD Foreign Clearance Guide available at https://www.fcg.pentagon.mil/ and select “Enter the Site.” From the left column select Pacific, South Asia, and Indian Ocean and then Wake Island.

2. Cargo. All cargo entering Wake Island, regardless of origin, is subject to inspection by USAF-appointed inspector at point of departure as well as upon arrival. A rodent eradication was recently carried out in May 2012 and a heightened level of bio-security to inhibit rodent reinvasion has been implemented.

3. 611 CES is the lead military point of contact for issues associated with invasive species and inspection issues. Inquiries associated with invasive species issues particular to Wake Island and shipment requirements to prevent transport of invasive species to the island shall be directed towards the Wake Island Installation Commander via Base Operations at BaseOperations2@wakeisland.net. The USAF requires a container packaging list for all containers. USAF inspectors may also conduct a physical inspection of the selected containers which are sealed with a Customs Seal and delivered to the consignee, these containers are not be opened until they reach their final destination or unless a USAF inspector is present.

4. Military shippers shall ensure that:

a. Cargo descriptions are complete and accurate.

b. Container packing lists will be in or attached to each container.

c. Advanced copies of the container packing list and the USAF Wake Island Vessel/Aircraft Rodent Pre-departure Inspection Forms are sent to the Wake Island Base Operations at BaseOperations2@wakeisland.net. A copy of the USAF Wake Island Vessel/Aircraft Rodent Pre-departure Inspection Form can be obtained from the Wake Base Operations, the 611 Natural Resources Program Manager, and or the vessel government contracting officer.

d. All vessels destined for Wake will have rat guards on board for immediate deployment upon docking at Wake

e. All Cargo staging areas where equipment and supplies destined for Wake is held shall show documented proof that facilities have rodent control operations in place throughout the facility. Facilities shall be declared rodent free by continually deploying a network of the following tools: glue boards, snap traps, and anticoagulant baits (baits that fluoresce under UV light are recommended (http://www.belllabs.com/product_details/united-states-pest-control-contrac-with-lumitrack) in tamper proof stations. The spacing of traps and stations shall encompass the entire facility. These measures are required at each facility storing
APPENDIX B

equipment that is destined for shipment to Wake Island. Facility pest management contracts should include a quarterly report that shall be submitted to 611 CES, Natural Resources Program Manager in order to ensure the equipment and supplies came from a facility with an ongoing pest control operations. The reports from pest control contracts shall display the type of rodent control in place, the frequency of baiting, density of traps and trap results. The Wake Island Commander can prohibit the opening of a containers or other cargo if there is no documentation in existence showing the facility and the equipment shipped from has an ongoing pest control operation. Please contact the 611 CES, Natural Resources Manager for further information (907-552-0788) or Wake Island Base Operations (808-424-2222).

f. In the event cargo destined for Wake is discovered to be contaminated (ie. rodents, snakes, insects, etc) after departure from point of origin with an invasive species, the pilot or captain shall isolate the package or container, and refrain from offloading the item on Wake. The pilot or captain shall immediately contact Wake Base Ops (DSN: 315-424-2222 or COM: 808-424-2222) and alert them to the presence of an invasive species on the vessel or aircraft. This notification will activate the Wake Island rodent rapid response team.

5. Vessel operators shall ensure that during loading operation at the location of origin all mooring lines are protected with rat guards and baited snap are deployed at each line exit and tie off point. For areas of high activity it is recommend that baited snap traps should be placed inside a protected station called a “bait station” to avoid accidently triggers of the traps.

6. All containers regardless of size shall have one baited glue board and one baited snap trap inside of each container prior to sealing it for shipment. This will require contract language to include the coordination of this requirement with the vendors and or contractors who seal containers prior to shipment to Wake or intermittent staging areas. Contract language should also include the purchase of these detection devices and supplies (i.e. snap traps, glue boards, rat attractant, and or bait).

7. Vessels or aircraft originating from Guam destined for Wake shall be required to display documented proof of equipment and vessel/aircraft inspection with USDA canine prior to unloading equipment on Wake Island. This inspection is required to ensure Brown Tree Snakes (BTS) are not contained within shipments, aircraft, or vessels. This USDA BTS inspection requires advanced coordination with the Guam USDA, Wildlife Services at (671) 366-3886 or (671) 635-4400. The Guam USDA inspector will provide the vessel or aircraft operator with a letter of verification, this letter of verification is to be submitted to the Wake Island Base Operations at BaseOperations2@wakeisland.net prior to the vessel or aircraft arrival at Wake.

8. During loading operations at origin, any box, cargo, or container showing signs of infestation (i.e. feces, chew marks, urine scent, hair) should be pulled out of the shipment
and placed in an isolated area and thoroughly inspected prior to being placed back in the shipment.
APPENDIX C

US AIR FORCE WAKE ISLAND VESSEL AIRCRAFT RODENT PRE-DEPARTURE INSPECTION FORM
**APPENDIX C**

**USAF Wake Island Vessel/Aircraft Rodent Pre-departure Inspection Form**

**Inspectors Name/ Agency:**

**Email / Contact #:**

**Vessel/Aircraft:**

**Origin:**

**Estimated Date and Time of Arrival to Wake Island:**

**Date Cargo Inspection Occurred:**

**Date Vessel/Aircraft Inspection Occurred:**

**Pre Departure Checklist (Yes/No/Not Applicable):**

1) Visual inspection of all cargo for rodent sign____
   (sign - feces, chew marks, holes in cardboard, food piles, strong urine scent)

2) Rodent Control Devices Deployed to cargo staging areas____
   # _____Rodenticide Baited Stations within staging area
   (Type of Chemical Compound & Commercial Name__________________________________________)
   # _____Snap traps
   # _____Glue Boards

3) Maps depicting the location of traps or control devices affixed to this form____

4) Functional Rat Guards aboard vessel and crew notified of immediate usage upon arrival to wake____

5) Pre-departure crew notification of Wake Defense Transportation Regulation and steps to implement Rodent Rapid Response in the event of a rodent sighting____

6) Cargo identified as infested prior or during loading____
   Unique Identification of Cargo or Manifest # (ie. palletized, boxed, breakbulk)

7) Was contaminated cargo loaded onto vessel/aircraft____

8) Has Wake Island Base Ops and 611 CES Environmental been contacted regarding potential infested cargo identified during loading____

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Wake Island USAF Pre-Departure Invasive Species Checklist - 2012 Edition 2.0 - 611 CES
Submit Pre Departure Checklist to Wake Island Base Ops and 611th CES Environmental for archival purposes
e-mail: BASEOPS@WAKEISLAND.NET; matthew.moran.3@us.af.mil; fax: 315-552-5311; matt’s fax number 317-552-5311. Rapid Response contact: 808-424-2101; 907-552-0788