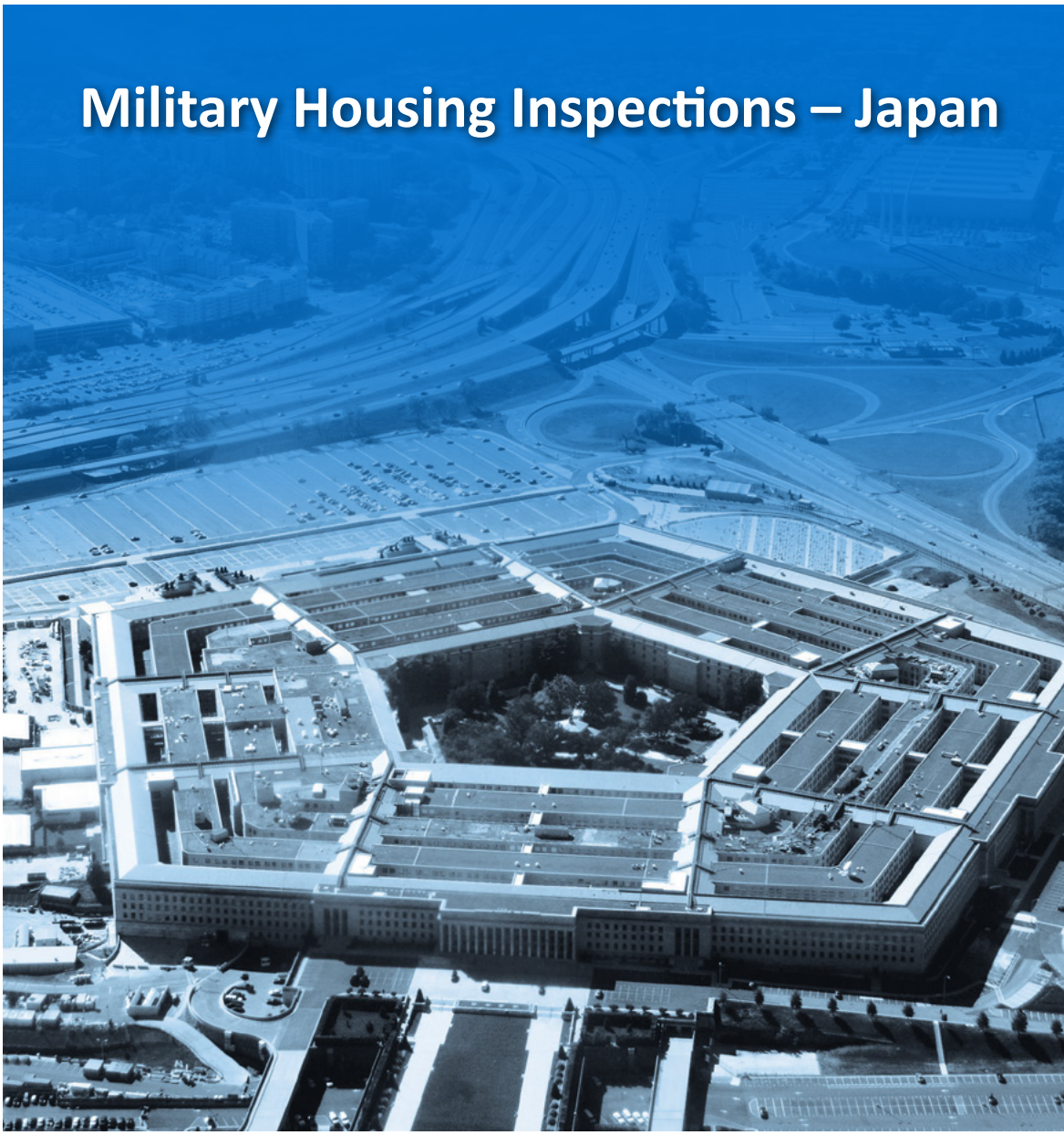
Report No. DODIG-2014-121

Inspector General

U.S. Department of Defense

SEPTEMBER 30, 2014

Military Housing Inspections – Japan



INTEGRITY ★ EFFICIENCY ★ ACCOUNTABILITY ★ EXCELLENCE

INTEGRITY ★ EFFICIENCY ★ ACCOUNTABILITY ★ EXCELLENCE

Mission

Our mission is to provide independent, relevant, and timely oversight of the Department of Defense that supports the warfighter; promotes accountability, integrity, and efficiency; advises the Secretary of Defense and Congress; and informs the public.

Vision

Our vision is to be a model oversight organization in the Federal Government by leading change, speaking truth, and promoting excellence—a diverse organization, working together as one professional team, recognized as leaders in our field.

Fraud, Waste, & Abuse
HOTLINE
Department of Defense
dodig.mil/hotline

For more information about whistleblower protection, please see the inside back cover.

Results in Brief

Military Housing Inspections – Japan

September 30, 2014

Objective

Our objective was to inspect DoD military housing in Japan for compliance with DoD and Federal environmental health and safety policies and standards. Those policies and standards include the Unified Facilities Criteria (UFC), National Fire Protection Association (NFPA) codes and standards, National Electrical Code (NEC), and U.S. Environmental Protection Agency (EPA) standards.

Findings

The majority of deficiencies (violations of code) identified during our inspection were attributed to insufficient inspection, maintenance, and repair of housing facilities. A total of 1,057 deficiencies were identified that could affect the health, safety, and well-being of warfighters and their families: 542 were fire protection systems, 420 were electrical systems, 87 were environmental health and safety, and 8 were housing management. Of the total deficiencies, we identified 145 critical deficiencies requiring immediate action in Notices of Concern (NOCs) to U.S. Pacific Command (PACOM) and U.S. Forces Japan (USFJ). Of note, based on our radiation measurements, the estimated individual annual doses at each USFJ installation tested were very low. At these levels, there are no demonstrable radiation–induced health effects.

Visit us at www.dodig.mil

Findings (cont'd)

Our overall findings for Japan installations were:

- There was inadequate resources and diligence to inspect, maintain, and repair housing facilities.
- Installation personnel did not ensure that fire protection systems were properly installed, periodically inspected, and maintained.
- Installation personnel did not ensure that electrical systems were properly installed, periodically inspected, and maintained.
- Installation personnel did not follow environmental regulations or best practices to ensure the health and safety of occupants, specifically with regard to mold and radon.
- Housing management systems were not fully implemented and procedures were not always followed by installation personnel.

Recommendations

We recommend that the respective Military Departments, as applicable:

- Conduct an effective root cause analysis and corrective action for all 1,057 deficiencies in this report.
- Ensure that these deficiencies do not exist in other housing units.
- Ensure the inspection, maintenance, and repair program is in compliance with applicable codes and standards.
- Ensure that sufficient, qualified resources are available and assigned to inspect and verify that all housing buildings and units are in compliance with requirements.

Recommendations (cont'd)

- Ensure that housing management systems and processes are fully implemented and followed for all installations.

We recommend that the Under Secretary of Defense for Acquisition, Technology, and Logistics (OUSD (AT&L)) include guidance, per EPA standards to ensure the health of the warfighter, for both accompanied and unaccompanied housing within the Overseas Environmental Baseline Guidance Document (OEBGD) for:

- Control and remediation of mold.
- Radon evaluation and mitigation.

Management Comments and Our Response

The PACOM, USFJ, Department of the Army, Department of the Navy, and the Department of the Air Force provided comments agreeing with all recommendations. These comments were fully responsive and we do not require additional comments with the exception of Finding A where individual base commands took exceptions to key deficiencies identified in the Notice of Concerns (See Tables F1, F2, and F3). Additional comments are required from the service components ensuring that they will coordinated with the base commands to address the NOC deficiencies.

OUSD (AT&L) disagreed with our recommendation that they provide policy and guidance for the control and remediation of mold and radon for accompanied and unaccompanied housing for the warfighter and their families. Therefore we strongly request that OUSD (AT&L) reconsider their position and provide additional comments. See the Management Comments section for full text of the responses to the draft report.

Recommendations Table

Management	No Additional Comments Required	Recommendations Requiring Comment
OUSD (AT&L)*		D.2.a and D.2.b
PACOM and USFJ	A, B, C, D.1, and E	
Military Departments*	B, C, D.1, and E	A

*Please provide comments by October 31, 2014

INSPECTOR GENERAL
DEPARTMENT OF DEFENSE
4800 MARK CENTER DRIVE
ALEXANDRIA, VIRGINIA 22350-1500

September 30, 2014

MEMORANDUM FOR SECRETARIES OF THE MILITARY DEPARTMENTS
UNDER SECRETARY OF DEFENSE FOR ACQUISITION, TECHNOLOGY AND LOGISTICS
COMMANDER, UNITED STATES PACIFIC COMMAND
COMMANDER, UNITED STATES FORCES JAPAN

SUBJECT: Military Housing Inspections – Japan (Report No. DODIG-2014-121)

The DoD Office of Inspector General (DoD OIG) conducted the subject inspections of military housing facilities in Japan for compliance with applicable DoD and Federal policies and standards. The areas of inspection were electrical, fire protection systems, and environmental health and safety. The environmental inspections focused on radiation, radon, mold, pest infestation, water quality, lead-based paint, and asbestos. We inspected approximately 2 percent of housing at 15 military installations in Japan and identified 1,057 total deficiencies (violations of code).

We provided our findings/deficiencies in a draft of this report to U.S. Pacific Command (PACOM), U.S. Forces Japan (USFJ), and the Service components. While PACOM and USFJ and the Services provided full concurrence, certain base commands had non-concurred with deficiencies identified in our Notices of Concern issued in real time during the inspection. We request PACOM, USFJ, and the Services work with those base commands and provide a response back to this office.

The Acting Deputy Under Secretary of Defense for Installation and Environment disagreed with our recommendation to issue policy for both control and remediation of mold and radon. Based on our inspection, the significant presence of mold and DoD's current ad hoc approach to radon mitigation places unnecessary risk on the warfighter and their dependents. The OIG DoD firmly believes that serious health hazards such as these need to be addressed at the DoD level. Therefore, we request further comments from the Under Secretary of Defense for Acquisition, Technology and Logistics on our recommendations as they relate to radon and mold by October 31, 2014.

DoD Directive 7650.3 requires that recommendations be resolved promptly. If possible, send a .pdf file containing your comments to [redacted] Copies of your comments must have the actual signature of the authorizing official for your organization. We are unable to accept the /Signed/ symbol in place of the actual signature. If you arrange to send classified comments electronically, you must send them over the SECRET Internet Protocol Router Network (SIPRNET).

I wish to thank Deputy Commander, U.S. Pacific Command, LTG Tony Crutchfield, and the Commander, U.S Forces Japan, Lt Gen Sam Angelella, and their staffs for the professionalism, support, and courtesies extended to our inspection team. The DoD OIG is proud and humbled to have met many warfighter families stationed throughout Japan during the course of this inspection.

Please direct questions to [redacted]

Randolph R. Stone
Deputy Inspector General
Policy and Oversight

cc:
Assistant Secretary of the Air Force (Financial Management and Comptroller)
Army Inspector General
Naval Inspector General
Auditor General, Department of the Army

Contents

Introduction

Objective 1

Background 1

Inspection Process 1

Relevant Inspection Policy 4

Inspection Criteria 5

Categorization of Deficiencies 6

Installation Inspections 8

Naval Air Facility Atsugi 8

Camp Zama 10

Commander Fleet Activities Yokosuka 12

Misawa Air Base 13

Marine Corps Air Station, Iwakuni 14

Okinawa Installations 16

Kadena Air Base 17

Marine Corps Base Camp Butler and Marine Corps Air Station Futenma 18

U.S. Army Garrison Okinawa (Torii Station) 21

Overall Findings and Recommendations 22

Finding A 23

Recommendations, Management Comments, and Our Response 23

Finding B 25

Recommendations, Management Comments, and Our Response 26

Finding C 27

Recommendations, Management Comments, and Our Response 28

Finding D 29

Recommendations, Management Comments, and Our Response 30

Finding E 33

Recommendations, Management Comments, and Our Response 34

Appendixes

Appendix A. Scope and Methodology 35

Appendix B. Radon Survey Results 37

Appendix C. Radiation Survey Results 41

Appendix D. Inspection Criteria List 45

Appendix E. Sample Deficiency Form 49

Appendix F. Notices of Concerns and Responses 50

NOC 1: NAF Atsugi, Camp Zama, CFA Yokosuka, and Misawa Air Base (November 8, 2013) 53

DoD OIG NOC 1, November 8, 2013 53

NOC 2: Kadena Air Base, Camp Lester, Camp Foster, MCAS Futenma, Camp Kinser, Camp Courtney, Camp McTureous, Camp Hansen, and Camp Schwab (December 19, 2013) 55

DoD OIG NOC 2, December 19, 2013 55

NOC 3: MCAS Iwakuni (March 26, 2014) 58

DoD OIG NOC 3, March 26, 2014 58

Appendix G. Deficiencies 61

Management Comments 62

Department of the Army Response 62

Department of the Navy Response 63

Department of the Air Force Response 65

Office of the Under Secretary of Defense for Acquisition, Technology, and Logistics Response 66

United States Pacific Command Response 67

United States Forces Japan Response 68

Acronyms and Abbreviations 69

INSPECTOR GENERAL

DEPARTMENT OF DEFENSE

Introduction

Objective

Our objective was to inspect DoD military housing in Japan for compliance with DoD and Federal environmental health and safety policies and standards. Those policies and standards include the Unified Facilities Criteria (UFC), National Fire Protection Association (NFPA) codes and standards, National Electrical Code (NEC), and Environmental Protection Agency (EPA) standards.

Background

In support of the DoD OIG's mission to ensure the health and safety of warfighters and their families, we announced the inspection of military housing in Asia on July 18, 2013. Approximately 38,000 military personnel and 43,000 dependents are stationed at installations throughout Japan. Inspections were conducted in Japan because of the strategic realignment of installations in the Pacific. Japan installations are also exposed to a wide range of environmental conditions from heavy snow, tropical storms, and seismic activities.

Inspection Process

We inspected the DoD military housing facilities in Japan for compliance with applicable DoD and Federal environmental health and safety policies and standards. The areas of inspection were electrical, fire protection systems, and environmental health and safety. The environmental health and safety inspection focused on compliance to mold, water quality, lead-based paint, asbestos, pest infestation, radon, and radiation standards. We inspected accompanied units (family housing) and unaccompanied units (barracks and dormitories), mechanical rooms, and common areas; conducted personnel interviews; inspected housing service order request and public work records; and examined program management plans and survey results. See Appendix A for additional scope and methodology.

We conducted radon and radiation surveys at both accompanied and unaccompanied housing including playgrounds, ball fields, and lodges. See Appendixes B and C for the inspection processes for the radon and radiation surveys. We inspected water quality testing results (monthly, quarterly, and annually) at each installation and inspected on-site water treatment plants, if applicable. During the on-site inspection, the residents were interviewed for any concerns regarding drinking water quality. For lead-based paint, we inspected the

lead hazard management programs to see if the installations identified, controlled or eliminated lead-based paint hazards through interim controls or abatement. For asbestos, we inspected the asbestos management programs to determine whether each installation managed friable and non-friable asbestos-containing materials (ACM) in accordance with environmental requirements. In addition, we visually inspected for lead-based paint and ACM in buildings followed by ensuring their inclusion in the lead-based paint or asbestos inventories.

The inspections were conducted at the following installations (also shown in Figure 1):

- Mainland Japan
    - Naval Air Facility (NAF) Atsugi
    - Camp Zama
    - Commander Fleet Activities (CFA) Yokosuka
    - Misawa Air Base
    - Marine Corps Air Station (MCAS) Iwakuni
- Okinawa
    - Kadena Air Base
    - Marine Corps Base (MCB) Camp Butler
        - Camp Lester
        - Camp Foster
        - Camp Kinser
        - Camp Courtney
        - Camp McTureous
        - Camp Hansen
        - Camp Schwab
    - MCAS Futenma
    - U.S. Army Garrison (USAG) Okinawa (Torii Station)[1]

[1] U.S Army Garrison Torii Station was officially renamed U.S. Army Garrison Okinawa on Mar 4, 2014.

Between September 10, 2013 and March 7, 2014, we inspected an average of two percent of housing units at each major installation in Japan. We selected buildings and units of a variety of size, type, and age; and considered complaints received, work orders submitted, and onsite information gathered. We also inspected common areas such as utility rooms, boiler rooms, laundry rooms, barrack lounges, and common kitchen areas.

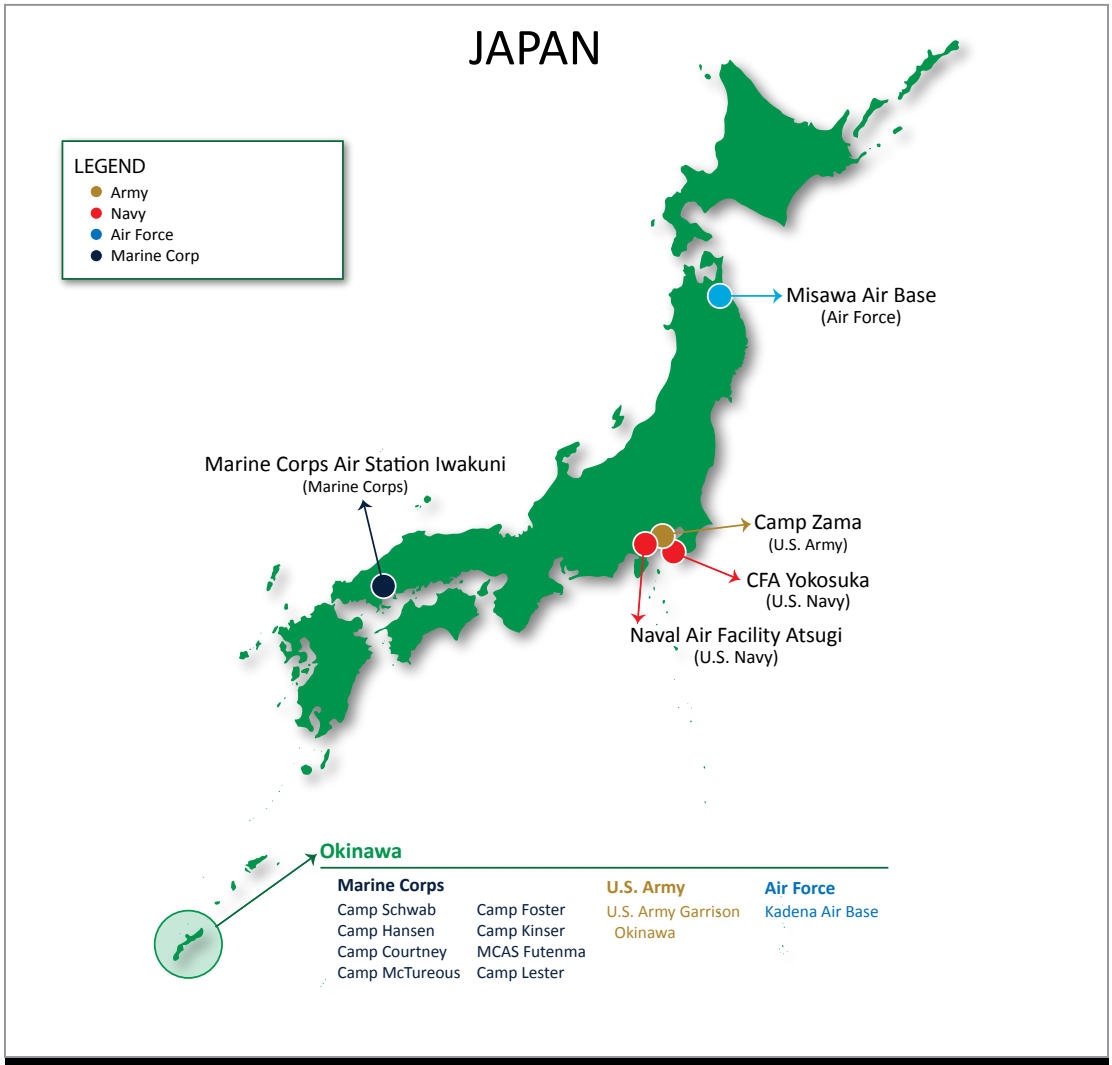


Figure 1. Installations Inspected in Japan
Source: DoD OIG

The inspection was performed by fire protection engineers, environmental engineers, industrial hygienists, master electricians, radiation health physicists, and quality assurance engineers. Inspectors populated deficiency forms for each deficiency identified. Appendix D contains a full list of inspection criteria and Appendix E contains a sample deficiency form. At the end of each inspection, we briefed installation commands on the results and provided a draft copy of all deficiencies identified on their installation.

Notices of Concern

We issued three Notices of Concern (NOCs) to U.S. Pacific Command (PACOM) and U.S. Forces Japan (USFJ). The NOCs identified critical health and safety deficiencies requiring immediate corrective action; the NOCs with responses are included in Appendix F.

Relevant Inspection Policy

We inspected facilities for compliance with applicable U.S law, DoD policies, Service requirements, and installation-specific standard operating procedures. DoD policies include DoD Instruction (DoDI) 4165.63, "DoD Housing" and DoD Manual (DoDM) 4165.63M, "DoD Housing Management," which specify minimum standards for configuration, privacy, condition, health, and safety of DoD housing. DoDM 4165.63M states that DoD housing "shall be operated and maintained to a standard that protects the facilities from deterioration and provides safe and comfortable living places for Service members and their dependents." DoD assigns responsibility to installation commanders to "ensure that the operation, maintenance, and repair of DoD housing and major building components are being performed to provide excellent facilities in the most cost-effective manner." For host nation-funded installations, we referred to DoDD 4270.34, "Host Nation-Funded Construction Programs in the U.S. Pacific Command Area of Responsibility," which requires that host nation-funded projects be designed and constructed to meet U.S. military construction program criteria for personnel health and safety and environmental protection. Military construction outside of the United States is also governed by Status of Forces Agreements, Host Nation Funded Construction Agreements, and in some instances, Bilateral Infrastructure Agreements.

DoDI 4715.05, "Environmental Compliance at Installations Outside the United States," establishes policy and responsibilities for managing environmental compliance to protect human health and safety at DoD installations outside the United States. DoDI 4715.05 requires a comprehensive set of country-specific

substantive provisions, the Final Governing Standards (FGS) to protect human health and the environment in foreign countries identified by the Office of the Under Secretary of Defense for Acquisition, Technology, and Logistics (OUSD (AT&L)). DoDI 4715.05 also references DoD 4715.05-G, "Overseas Environmental Baseline Guidance Document (OEBGD)," to provide criteria and management practices for environmental compliance at U.S. installations overseas. The Japanese Environmental Governing Standards (JEGS) are the FGS for Japan. The environmental inspections focused on compliance with the requirements and policies established in JEGS and other applicable UFCs.

Inspection Criteria

Typically inspections are done to the latest standard and regulations to ensure that safety concerns are identified in accordance with the most recent approach to hazards. A facility's age could necessitate the use of an older edition code or regulation. The latest standards and regulations were the criteria for our inspection so that each facility could be compared to the same baseline. The following sections provide further details on the criteria for our inspection.

DoD Unified Facilities Criteria

The DoD Unified Facilities Criteria (UFC) streamlines all technical criteria and standards pertaining to the planning, designing, construction, and operation and maintenance (O&M) of real property facilities. It applies to the Military Departments, DoD Agencies, and DoD field activities. UFC standards used for this inspection include UFC 4-711-01, "Family Housing," UFC 3-600-01 Change 1, "Fire Protection Engineering for Facilities," UFC 3-520-01 Change 1, "Interior Electrical Systems," and UFC 3-560-01, "Electrical Safety – O&M." In most cases, UFCs state that if requirements in an NFPA or host nation agreements are more stringent than requirements in a UFC, the more stringent requirement takes precedence.

National Fire Protection Association Standards

The NFPA is an internationally recognized organization that publishes 300 codes and standards for minimizing the risks and effects of fire by establishing criteria for building, designing, servicing, and installation in the United States and other countries. NFPA standards used in this inspection include NFPA 70, "National Electrical Code," which is the most widely used and accepted code for electrical installations. We also used NFPA 1, "Fire Code", which establishes

requirements for fire safety and property protection in new and existing buildings and NFPA 101, "Life Safety Code," which establishes requirementsto protect building occupants from fire, smoke, and toxic fumes.

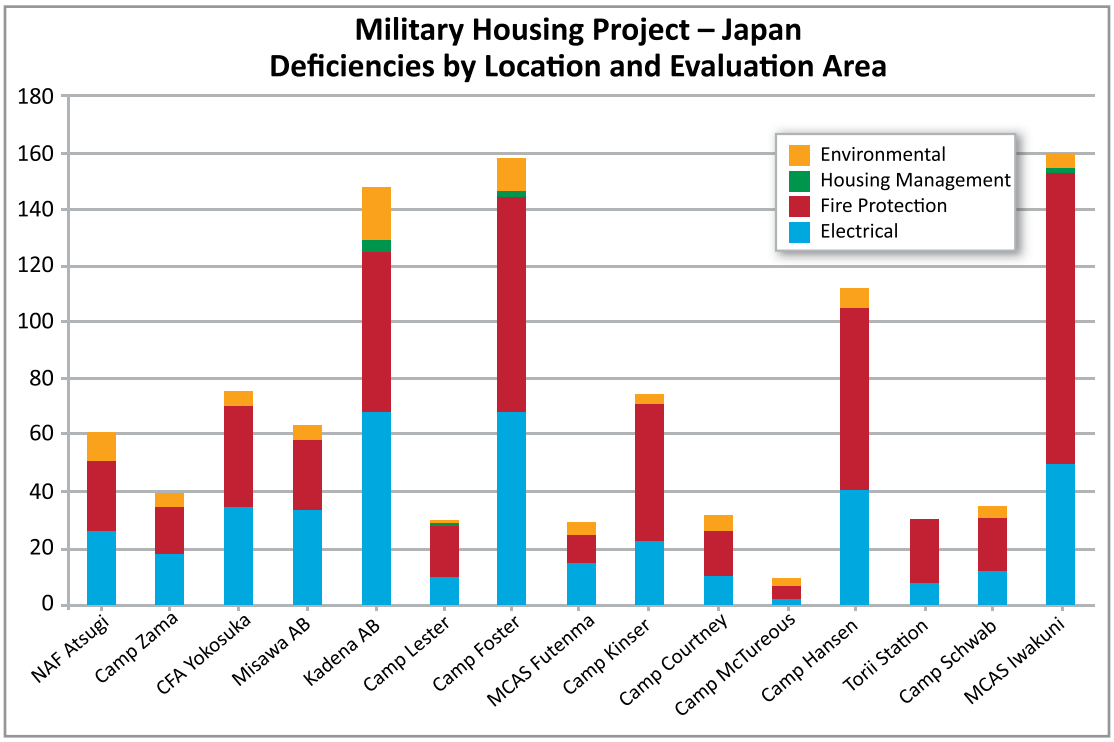
Environmental Protection Agency Standards

We used EPA standards for the radon and radiation surveys. We compared radon and radiation measurements taken during the inspection to EPA exposure limits.

Categorization of Deficiencies

During the housing inspections at 15 military installations in Japan, we documented 1,057 deficiencies (violations of code) affecting the life, health, and safety of warfighters and their families (see Appendix G). Deficiencies documented noncompliance with the UFC, NFPA, NEC, JEGS, environmental standards, DoD policies and instructions, Armed Services policies, and internal procedures and processes at each facility. Deficiencies were classified into three primary categories: fire protection, electrical, and environmental health and safety. We identified a fourth category, housing management, based on issues observed during our inspection of the first four installations. Housing management included an inspection of processes, databases, and the components responsible for overall implementation of housing policies. Environmental health and safety deficiencies were further delineated into the following subcategories: mold, asbestos/lead/polychlorinated biphenyls (PCBs), radon, pest control, and water quality. Based on our radiation measurements, the estimated individual annual doses at each USFJ installation were very low. At these levels, there are no demonstrable radiation-induced health effects. The structural deficiencies (environmental category) posed a significant health and safety hazard and were issued in a NOC. Figure 2 shows deficiencies in the three primary categories as well as housing management.

Figure 2. Number of Deficiencies by Location and Evaluation Area



Installation Inspections

Naval Air Facility Atsugi

NAF Atsugi is located in the center of the Kanto Plain, on the eastern side of central mainland Japan, and is approximately 22 miles southwest of Tokyo. The climate at NAF Atsugi is similar to the east coast of the United States with four seasons. The NAF Atsugi community includes 10,000 personnel, including U.S. Navy, civilians, and family members. NAF Atsugi supports the combat readiness of Commander, Fleet Air Forward, Commander, Carrier Air Wing, Helicopter Maritime Strike Squadron 51, and 30 other tenant commands and units assigned to the Western Pacific. NAF Atsugi has more than 1,000 housing buildings, with over 2,000 total units. Morale Welfare and Recreation is responsible for housing management. Public Works Department within Naval Facilities Engineering Command (NAVFAC) is responsible for repair and maintenance of installation facilities. See Table 1 for NAF Atsugi's deficiencies.

Table 1. NAF Atsugi Deficiency Categorization

	Fire Protection	Electrical	Environmental						Total
			Mold	Asbestos/Lead/PCB	Radon	Pest Control	Structural	Water	
NAF Atsugi	25	26	7	0	2	1	0	0	61

From September 16 through September 22, 2013, we inspected 31 units in 20 buildings, including multi-unit, barracks, towers, and single family homes. On November 8, 2013, we issued a NOC that detailed 17 deficiencies requiring immediate action (out of the 60 deficiencies identified at NAF Atsugi). Fire protection deficiencies included missing smoke alarms in sleeping areas and a lack of automatic fire sprinkler system installed in military housing. Electrical deficiencies included lighting fixtures hanging by energized wires and missing electrical panel covers, which exposed energized conductors (see Figure 3). This increases the risk of electrocution or fire. We found generator wires in a junction box without a bushing installed to protect against sharp edges and abrasions. Abrasion

of insulation could result in an electrical short to the junction box, causing a catastrophic failure to the emergency back-up power system. Also, there were numerous deficiencies due to excessive mold build up, which could result in hazardous health conditions.

Figure 3. Live wires hanging out of wall without proper enclosure protecting from accidental contact (Deficiency No. ATS-EL-130917-018)
Source: DoD OIG

In addition to those deficiencies identified in the NOC, we also noted installation-wide deficiencies. Electrical deficiencies included missing Ground Fault Circuit Interrupter (GFCI) for countertops, bathrooms, and exterior outlets which results in an electrocution hazard. Environmental deficiencies included a building with radon level readings above the recommended EPA limit. In housing mangement, we found a lack of communication between Public Works, Housing Office, and the Command. There were no formal housing management roles and responsibilities nor guidance on how to allocate resources; therefore, proper root cause analysis and corrective action for the remediation of issues was not being performed. For example, none of the work orders specified an adequate inspection or evaluation process to determine root cause of moisture intrusion (leaky roofs, pipes, etc.) in single-family units with a history of heavy condensation, musty odors, and mold blooms (see Figure 4). These issues resulted in a lack of accountability to provide adequate housing to the warfighters and their families.

Figure 4. Left: Mold blooms inside barracks (Deficiency No. ATS-EN-130917-009A) Right: Warped paint from moisture/condensation inside single family housing unit
(Deficiency No. ATS-EN-130917-008A)
Source: DoD OIG

Camp Zama

Camp Zama is located on the eastern side of central mainland Japan in the cities of Zama and Sagamihara in Kanagawa Prefecture, and is approximately 25 miles southwest of Tokyo. The climate at Camp Zama is similar to the east coast of the United States with four seasons. Camp Zama is the headquarters of United States Army Japan (USARJ), which serves as the Army Component of USFJ. Camp Zama is also home to the U.S. Army Japan/I Corps (FWD), U.S. Garrison Japan (USAG-J), the 441st Military Intelligence Battalion, the 78th Signal Battalion, and other units. Camp Zama's installation cluster includes Sagamihara Family Housing Area and Sagami General Depot. Camp Zama has more than 300 housing buildings, with more than 1,400 total units. Directorate of Public Works, USAG-J at Camp Zama is responsible for all the building's operations, inspection, testing, and maintenance. See Table 2 for Camp Zama's deficiencies.

Table 2. Camp Zama Deficiency Categorization

	Fire Protection	Electrical	Environmental						Total
			Mold	Asbestos/Lead/PCB	Radon	Pest Control	Structural	Water	
Camp Zama	17	18	4	0	1	0	0	0	40

From September 23 through September 24, 2013, we inspected 29 units in 13 buildings of various types, including single family dwelling, multi-family dwelling, unaccompanied barracks, and enlisted/officers' quarters. On November 8, 2013, we issued a NOC that detailed 10 deficiencies requiring immediate action (out of the 40 deficiencies identified at Camp Zama). The most widely identified deficiencies included missing smoke alarms and smoke detectors in sleeping areas. We identified instances of low hanging electrical service drops that were installed at only 8 feet 7 inches off the ground rather than the 12-foot requirement, posing a safety hazard to the occupants (see Figure 5).

In addition to those deficiencies identified in the NOC, we also noted installation-wide deficiencies. Fire protection deficiencies included missing automatic sprinkler systems in required locations. Electrical deficiencies included missing GFCIs for bathrooms, laundry rooms, and exterior outlets. Environmental deficiencies included Camp Zama's failure to comply with installation procedures for mold investigation and clean-up of a family housing unit that we inspected. According to Camp Zama's procedures, although air sampling for mold is not part of routine inspections, it may be necessary when the presence of mold is suspected (for example musty odors) but not visible.

Figure 5. Example of low-hanging electrical service drops at housing units
(Deficiency No. ZAM-EL-130923-012)
Source: DoD OIG

Commander Fleet Activities Yokosuka

CFA Yokosuka is on the eastern side of central mainland Japan, 43 miles south of Tokyo. The climate at CFA Yokosuka is similar to the east coast of the United States with four seasons. The installation is the home of the U.S. Naval Forces Japan, U.S. 7th Fleet and is the largest overseas U.S. naval installation in the world. It is considered to be one of the most strategic installations in the U.S. military. CFA Yokosuka has more than 3,400 housing buildings, comprising of over 4,000 total units. Housing management at CFA Yokosuka is responsible for operations, inspection, testing, and maintenance of all buildings. See Table 3 for CFA Yokosuka's deficiencies.

Table 3. CFA Yokosuka Deficiency Categorization

	Fire Protection	Electrical	Environmental						Total
			Mold	Asbestos/Lead/PCB	Radon	Pest Control	Structural	Water	
CFA Yokosuka	36	35	0	2	3	0	0	0	76

From September 25 through September 27, 2013, we inspected 48 units in 22 buildings of various types, including two-level townhomes to four- and nine-story tower buildings. On November 8, 2013, we issued a NOC that detailed 12 deficiencies requiring immediate action (out of the 74 deficiencies identified at CFA Yokosuka). Specifically, two major deficiencies were identified for CFA Yokosuka: missing smoke alarms or detectors in sleeping areas and a fire pump pressure gauge with exposed electrical wiring (broken electrical conduit), which could lead to equipment failure or electrocution.

In addition to those deficiencies identified in the NOC, we also noted installation-wide deficiencies. For example, fire protection deficiencies included missing exit stairway identification signs and fire extinguishers that had not been inspected monthly as required. Electrical deficiencies included missing GFCI for vending machines, laundry rooms, and kitchen countertops, and improper workmanship (see Figure 6). We also identified exposed energized wiring due to a missing electrical service panel breaker blank or broken electrical cover. Environmental deficiencies identified that a radon survey had not been conducted

for the Negishi Heights housing area, as required by the Navy Radon Assessment and Mitigation Program. In addition, radon screening on the Yokosuka main base was not conducted in accordance with the Navy Radon Assessment and Mitigation Program (NAVRAMP) for housing built after 1991. Through our independent radon measurements, however, we found two buildings with readings in excess of EPA recommended levels.

Figure 6. GFCI improperly secured in electrical panel (Deficiency No. YOK-EL-130925-005)
Source: DoD OIG

Misawa Air Base

Misawa Air Base is in the northern part of mainland Japan on the shores of Lake Ogawara in the Aomori Prefecture and is approximately 400 miles north of Tokyo. Misawa Air Base experiences four seasons with heavy snowfalls in the winter and spring, cool and foggy summers, and heavy rainfall in autumn. Misawa Air Base is the home of the United States Air Force 35th Fighter Wing Command. The base has more than 2,000 housing buildings, comprising of over 3,000 total units. The 35th Civil Engineer Squadron is responsible for operations, maintenance, and repair of housing facilities on Misawa Air Base. See Table 4 for Misawa Air Base's deficiencies.

Table 4. Misawa Air Base Deficiency Categorization

	Fire Protection	Electrical	Environmental						Total
			Mold	Asbestos/Lead/PCB	Radon	Pest Control	Structural	Water	
Misawa Air Base	24	34	0	6	0	0	0	0	64

From September 29 through October 1, 2013, we inspected 44 units in 19 buildings of varying types, including two-level townhomes, four- and nine-story tower buildings. On November 8, 2013, we issued a NOC that detailed 7 fire protection deficiencies requiring immediate action (out of the 64 deficiencies identified at Misawa Air base). NOC deficiencies were due to missing smoke alarms and smoke detectors in sleeping areas.

In addition to those deficiencies identified in the NOC, we also noted installation-wide deficiencies. Several of the fire protection deficiencies related to fire doors and inadequate emergency signage. Electrical deficiencies included a lack of GFCIs and poor equipment conditions. As a result of lack of repair and maintenance, we identified corrosion of a main switchgear electrical panel, a broken exhaust fan in the laundry room, exposed live wire in bathroom lighting fixtures, and a missing cover for the junction box in the mechanical room. We also identified that Misawa Air Base had not maintained and updated its environmental management plans and databases for asbestos, lead-based paint, and PCBs as required by JEGS.

Marine Corps Air Station, Iwakuni

MCAS Iwakuni is the only Marine Corps installation on mainland Japan, located south in the Nishiki River delta at Iwakuni City and is approximately 600 miles southwest of Tokyo. MCAS Iwakuni experiences mild winters with some snow and warm and humid summers. It is home to approximately half of the 1st Marine Aircraft Wing that is headquartered on Okinawa and elements of the 3rd Force Service Support Group. MCAS Iwakuni is also home to Marine Aircraft Group 12, Marine Aviation Logistics Squadron 12, Marine Wing Support Squadron 171, and Marine All Weather Fighter Attack Squadron 242. It has more than 700 family housing buildings of different types including single family

housing, duplexes, fourplexes, row houses, and mid-rise buildings to support the approximately 15,000 personnel, including U.S. military, dependents, and Japanese nationals. Major reconstruction efforts are in place, and 1,054 housing buildings are scheduled to be completed by June 2017 to support the addition of more than 2,500 uniformed personnel and 2,000 dependents moving to MCAS Iwakuni starting in the summer of 2014. The total base population will increase from 7,972 to 13,253 people by the end of the move. The family and bachelor housing division under the facilities department is responsible for the operations, maintenance, and repair of housing at MCAS Iwakuni. See Table 5 for MCAS Iwakuni's deficiencies.

Table 5. MCAS Iwakuni Deficiency Categorization

	Fire Protection	Electrical	Environmental						Housing Management	Total
			Mold	Asbestos/Lead/PCB	Radon	Pest Control	Structural	Water		
MCAS Iwakuni	103	50	2	1	2	0	0	0	2	160

From March 3 through March 7, 2014, we inspected 39 units in 20 buildings of different types. On March 26, 2014, we issued a NOC that detailed 28 deficiencies requiring immediate action (out of the 160 deficiencies found at MCAS Iwakuni). Fire protection deficiencies included missing smoke alarms and smoke detectors in sleeping areas. We identified obstructed sprinkler heads and a faulty fire pump controller that caused the fire sprinkler system to be inoperable (see Figure 7). Electrical deficiencies included missing electrical bonding between neutral, ground, and the main electrical panel. This increases the risk of fire, equipment damage, and electrocution.

Figure 7. Fire pump controller electrical phase reversal fault rendering the fire pump and the sprinkler system completely out of service
(Deficiency No. IWA-FP-140303-103)
Source: DoD OIG

In addition to those deficiencies identified in the NOC, we also noted installation-wide deficiencies. For example, several of the fire protection deficiencies related to issues with fire doors and inadequate emergency signage. As at other installations in Japan, we identified missing GFCIs in housing units. We also identified environmental deficiencies such as a lack of radon screening in accordance with the Navy Radon Assessment and Mitigation Program for housing built after 1991. With regards to housing management, we identified several instances where work orders and service tickets were missing information such as problem codes, housing unit numbers, and corrective action taken. Incomplete and inaccurate information is not in compliance with MCAS Order 11010.2D, "MCAS Iwakuni Real Property Facilities Maintenance Program," and prevents analysis of historical work order information for trends and lessons learned to improve housing management programs.

Okinawa Installations

Okinawa Prefecture is the southernmost prefecture of Japan and is made up of a chain of islands. The climate in Okinawa is very humid with hot summers, mild winters, and a typhoon season from June to November. The U.S. maintains Army, Navy, Air Force, and Marine installations in Okinawa. Okinawa hosts about two-thirds (approximately 25,000) of American forces in Japan. Okinawa has more than 7,000 housing units of different types including single family housing, duplexes, fourplexes, row houses, and tower buildings. All military accompanied housing on Okinawa is administered and managed by the U.S. Air Force. The Air Force 18th Civil Engineer Group (CEG) has the primary responsibility for maintenance and repair of family housing throughout Okinawa. Air Force 18th CEG is also responsible for unaccompanied housing at Kadena Air Base. For unaccompanied housing at Okinawa installations other than Kadena Air Base, each of the respective Services are responsible for their own housing management.

From October 28, 2013 through November 22, 2013, we inspected the following installations in Okinawa (also shown in Figure 8):

- Kadena Air Base
- MCB Camp Butler
    - Camp Lester
    - Camp Foster
    - Camp Kinser

- Camp Courtney
- Camp McTureous
- Camp Hansen
- Camp Schwab

- MCAS Futenma
- USAG Okinawa (Torii Station)

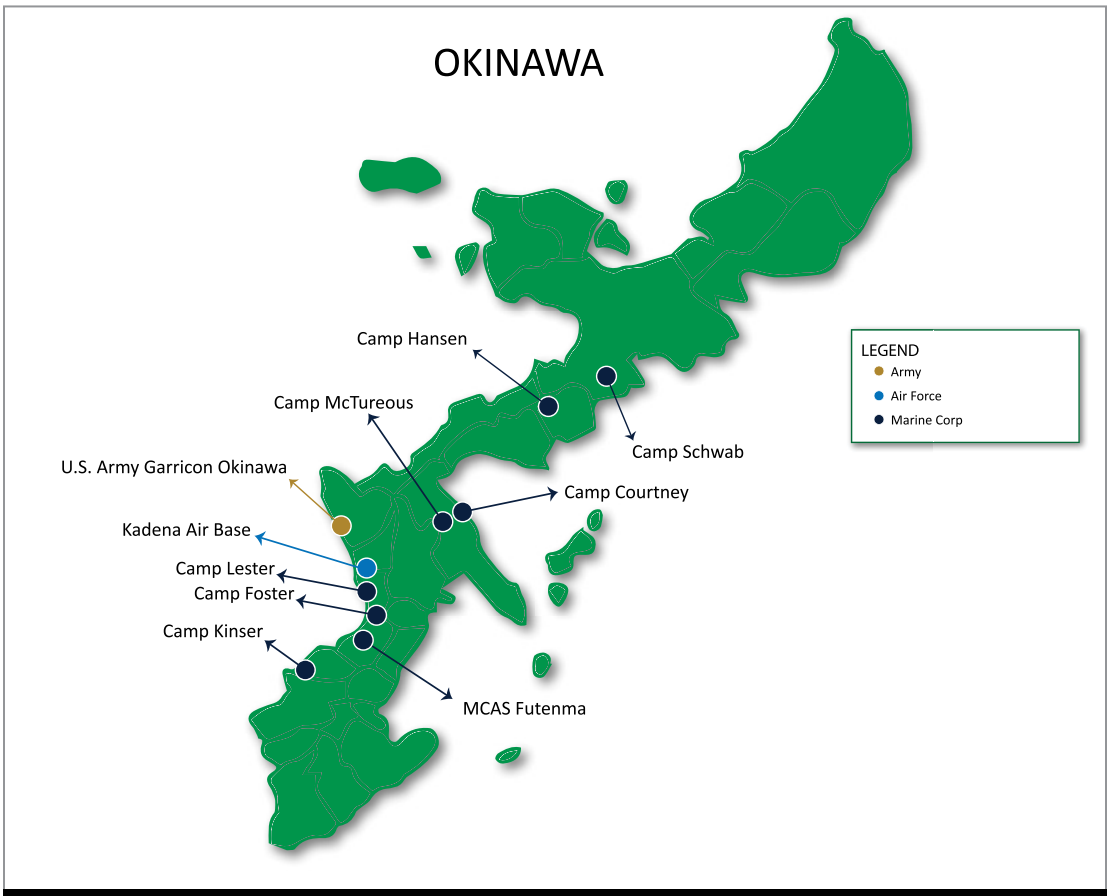


Figure 8. Installations Inspected in Okinawa
Source: DoD OIG

Kadena Air Base

Kadena Air Base is located in the central portion of the island of Okinawa. The base operates the largest U.S. installation in the Asia-Pacific region and is home to the 18th Wing. Kadena Air Base has approximately 3,000 housing units. See Table 6 for Kadena Air Base deficiencies.

Table 6. Kadena Air Base Deficiency Categorization

	Fire Protection	Electrical	Environmental						Housing Management	Total
			Mold	Asbestos/Lead/PCB	Radon	Pest Control	Structural	Water		
Kadena AB	58	68	11	1	2	4	0	0	3	147

From October 28 through November 2, 2013, we inspected 81 units in 37 housing buildings of various types, including multi-unit, barracks, towers, and single family homes. On December 19, 2013, we issued a NOC that detailed 24 deficiencies requiring immediate action (out of the 146 deficiencies identified at Kadena Air Base). Specifically, we identified missing smoke alarms in sleeping areas. In addition, we identified hazardous electrical power service drops and broken light fixtures in shower areas, which expose occupants to the risk of electrocution. Environmental issues include significant mold issues in living quarters, which could result in chronic health conditions. Through our independent radon measurements, we found one housing building with two radon level readings in excess of EPA recommended levels. Lastly, we identified housing management issues where installation personnel did not conduct housing visits and inspections as required by Air Force Instruction AFI 32-6005, "Unaccompanied Housing Management." The purpose of the required inspections include checking for dormitory cleanliness, identifying repair and maintenance needs, inspecting HVACs and other appliances, and inspecting for environmental hazards such as mold and mildew.

Marine Corps Base Camp Butler and Marine Corps Air Station Futenma

MCB Camp Smedley D. Butler and MCAS Futenma are a part of the Marine Corps Installations Pacific (MCIPAC) in Okinawa. MCB Camp Butler is comprised of several contiguous and non-contiguous installations including Camp Foster, Camp Kinser, Camp Courtney, Camp McTureous, Camp Hansen, and Camp Schwab. Although MCAS Futenma is not under the command of MCB Camp Butler, it has many shared resources. MCIPAC is responsible for ensuring that installations provide a number of services like training areas, work facilities, utilities, and housing.

From October 31 through November 30, 2013, we inspected 416 units in 87 housing buildings of various types including multi-unit, barracks, towers, and single family homes. On December 19, 2013, we issued a NOC that detailed 47 deficiencies requiring immediate action (out of the 477 deficiencies identified at installations throughout MCB Camp Butler). See Table 7 for MCB Camp Butler's and MCAS Futenma's deficiencies.

NOC deficiencies found at MCB Camp Butler and MCAS Futenma included missing smoke alarms in sleeping areas, which could result in evacuation delay, personnel injury, or death. Also there were hazardous electrical power service drops and broken light fixtures in shower areas, which expose occupants to the risk of electrocution; and there was significant mold growth in living quarters due to inadequate mitigation of condensation and moisture intrusion, which could result in chronic health conditions and tenant illness.

Table 7. Camp Butler Deficiency Categorization

	Fire Protection	Electrical	Environmental						Housing Management	Total
			Mold	Asbestos/Lead/PCB	Radon	Pest Control	Structural	Water		
MCAS Futenma	10	15	2	0	1	0	1	0	0	29
Camp Lester	18	10	1	0	0	0	0	0	1	30
Camp Foster	77	68	9	1	0	0	1	0	2	158
Camp Kinser	48	23	4	0	0	0	0	0	0	75
Camp Courtney	16	10	4	0	1	0	0	0	0	31
Camp McTureous	5	2	2	0	0	0	0	0	0	9
Camp Hansen	64	41	6	0	0	0	0	1	0	112
Camp Schwab	19	12	4	0	0	0	0	0	0	35

Figure 9. No earth grounding electrode conductor in service panel for single family house
(Deficiency No. FOS-EL-131104-057)
Source: DoD OIG

NOC deficiencies specific to some installations were noted. At Camp Schwab, we identified a hazardous electrical front panel cover, which could increase the risk of electrocution. We also identified ungrounded single family houses at Camp Foster (see Figure 9). At MCAS Futenma, we identified a critical deficiency due to a building with significant structural damage (deteriorated concrete exposing the steel reinforcements and rapidly corroding walkways), which presented a danger to building occupants of falling concrete debris and possible structural collapse. We also identified areas where concrete was separating from the underside of a walkway on the third floor as shown in Figure 10. The walkway had inadequate structural reinforcement and no means of protection from debris and collapse. At Camp Courtney, we identified a damaged exterior railing, which created a falling hazard for the occupants. Also, our independent radon measurements identified two buildings with measurements in excess of EPA recommended levels; one at Camp Courtney, and one at MCAS Futenma.

Figure 10. A walkway at MCAS Futenma (Deficiency No. FUT-EN-131107-003)
Source: DoD OIG

U.S. Army Garrison Okinawa (Torii Station)

USAG Okinawa is located in the central portion of Okinawa. It is home to the U.S. Army's 10th Support Group, 1st Special Forces Group, and other units and activities. USAG Okinawa has 4 barracks with a total of 320 housing units. See Table 8 for USAG Okinawa's deficiencies.

Table 8. USAG Okinawa Deficiency Categorization

	Fire Protection	Electrical	Environmental						Housing Management	Total
			Mold	Asbestos/Lead/PCB	Radon	Pest Control	Structural	Water		
USAG Okinawa (Torii Station)	22	8	0	0	0	0	0	0	0	30

From November 20 through November 21, 2013, we inspected 41 housing units in 4 buildings. There were no NOC deficiencies at USAG Okinawa. We identified base-wide deficiencies. Fire protection deficiencies included a lack of smoke alarm reliability and missing automatic sprinkler systems in some locations. Electrical deficiencies included exposed energized wiring and missing GFCI for kitchen countertops, vending machines and bathrooms.

Overall Findings and Recommendations

The installations we inspected had established departments responsible for operations inspection, testing, and maintenance of the buildings. Installation leadership and personnel were responsive to our information requests, on site access, and inspection timelines. We noted challenges associated with translation and implementation of standards, codes, procedures, and instructions due to a difference in primary languages (English and Japanese). Despite these challenges, installation personnel responsible for fire protection, electrical, and environmental health and safety were knowledgeable of their respective areas and recognized the need for improvements. The following sections discuss our overall findings and recommendations.

Finding A

Inspection, Maintenance, and Repair

We documented a total of 1,057 deficiencies that were violations of health and safety codes and requirements. The majority of the deficiencies were attributed to inadequate resources, and diligence to inspect, maintain, and repair housing facilities. Inadequate inspections and maintenance can lead to costly repairs, damage to Government buildings and facilities, and hazardous health and safety conditions for the warfighters and their families.

Facilities management did not always adequately perform preventive, recurring, and cyclic maintenance. These maintenance activities ensure infrastructure and supporting equipment such as HVAC, electrical, and water treatment and supply function as intended. Adequate maintenance also reduces costly repairs and damage to Government buildings and facilities. In addition, housing visits and inspections were not being accomplished in accordance with established instructions and procedures. Without an adequate inspection program and appropriate records, installation personnel cannot ensure that housing conditions are maintained at required levels, affecting the quality of life for the occupants.

Recommendations, Management Comments, and Our Response

Recommendation A

We recommend that the respective Military Departments, as applicable:

a. Conduct an effective root cause analysis and corrective action for all 1,057 deficiencies in this report.

b. Ensure that these deficiencies do not exist in other housing units.

c. Ensure the inspection, maintenance, and repair program is in compliance with applicable codes and standards for fire protection systems, electrical systems, and environmental health and safety.

United States Pacific Command

The U.S. Air Force Chief of Staff responding for USPACOM agreed.

United States Forces Japan

The Deputy Director, Logistics and Installations responding for USFJ agreed.

Department of the Army

The Deputy Assistant Secretary of the Army (Installations, Housing and Partnerships) responding for the Army agreed.

Department of the Navy

The Director for Housing, Office of the Assistant Secretary of the Navy (Energy, Installation, and Environment) responding for the Navy agreed.

Department of the Air Force

The Acting Assistant Executive Officer, AF/A7C, DCS/Logistics, Installation & Mission Support, Office of the Director of Civil Engineers responding for the Air Force agreed.

Our Response

Although management agreed with the findings and recommendations of this report, some base commands disagreed with specific deficiencies in the NOCs as listed in Table F1-F3 (See Appendix F). Additional response is required from the Service Components ensuring that they will coordinate with the base commands to address the NOC deficiencies.

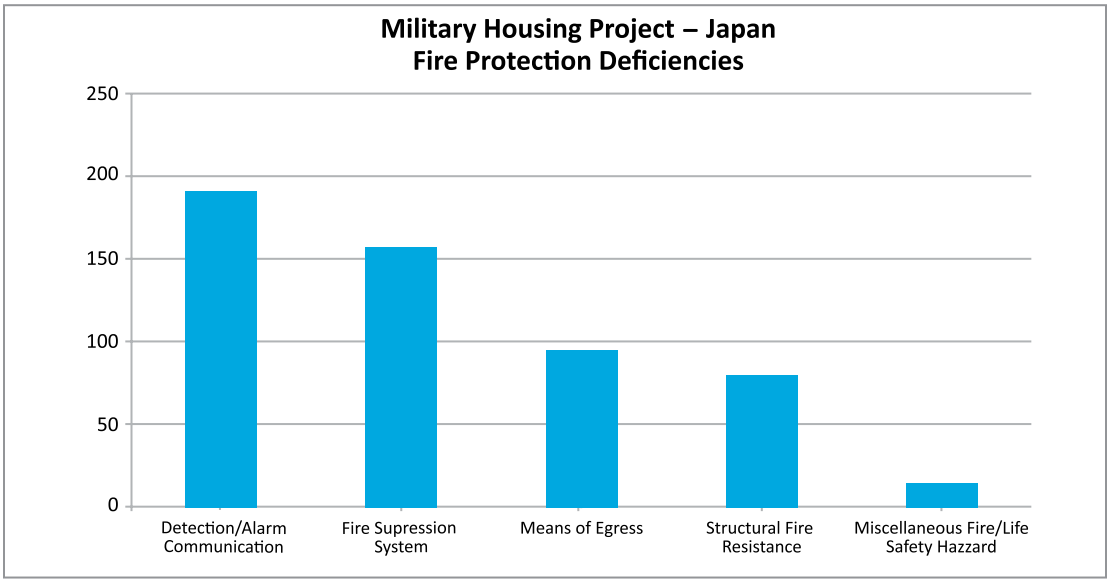
Finding B

Fire Protection Systems

Installation personnel did not ensure that fire protection systems were properly installed, periodically inspected, and maintained. For example, smoke alarms, sprinkler systems, and emergency exit signage were missing in many housing buildings and units. In addition, installation did not maintain the smoke alarms, fire doors, sprinkler systems, or fire extinguishers as required by NFPA code. As a result, risk of personnel injury or death is not effectively mitigated.

We identified 542 deficiencies in the area of fire protection; more than any other area. Figure 11 shows the breakdown of all the fire protection deficiencies in the relevant categories.

Figure 11. Fire Protection Deficiencies



We identified inadequate detection, alarm, and communication systems throughout installations in Japan. For example, smoke alarms and detectors were not installed in most sleeping rooms. Several buildings with fire alarm control systems were out of service, lacked periodic testing, or could not monitor or detect the disconnected smoke detectors. We identified inadequate fire suppression systems that were missing important components such as standpipe riser locks and sprinklers. Many buildings did not have operational identification signs and emergency lighting in the fire escape stairways and hallways. Lastly, fire doors

in housing units did not automatically close or latch to separate the exit access corridor from the laundry rooms, sleeping rooms, and lounges. These deficiencies pose a risk that an uncontrollable fire will result in loss of life and property. Inadequate signage and emergency lighting can result in delayed evacuation or emergency response time, increasing the risk of injury or death to the occupants.

Recommendations, Management Comments, and Our Response

Recommendation B

We recommend that the respective Military Departments, as applicable, ensure that sufficient, qualified resources are available and assigned to inspect and verify that all housing buildings and units are in compliance with requirements for fire protection systems.

United States Pacific Command

The U.S. Air Force Chief of Staff responding for USPACOM agreed.

United States Forces Japan

The Deputy Director, Logistics and Installations responding for USFJ agreed.

Department of the Army

The Deputy Assistant Secretary of the Army (Installations, Housing and Partnerships) responding for the Army agreed.

Department of the Navy

The Director for Housing, Office of the Assistant Secretary of the Navy (Energy, Installation, and Environment) responding for the Navy agreed.

Department of the Air Force

The Acting Assistant Executive Officer, AF/A7C, DCS/Logistics, Installation & Mission Support, Office of the Director of Civil Engineers responding for the Air Force agreed.

Our Response

Comments from management addressed all specifics of the recommendation, and no further comments are required.

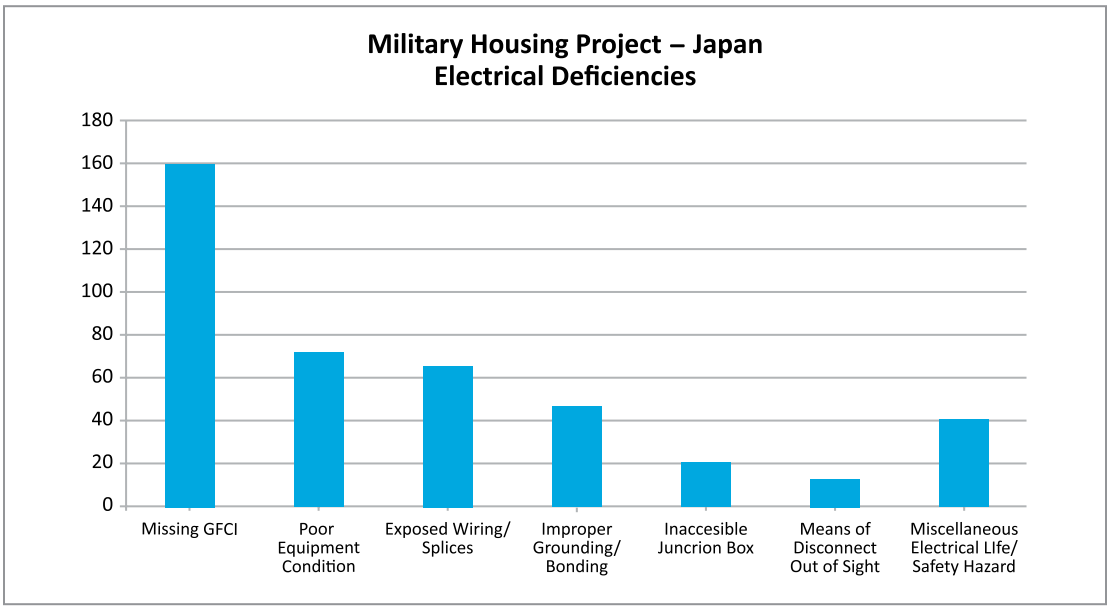
Finding C

Electrical Systems

Installation personnel did not ensure that electrical systems were properly installed, periodically inspected and maintained. For example, electrical grounding and bonding, including the use of Ground Fault Circuit Interrupters (GFCIs) did not meet electrical code. Inadequate installation, repair, and maintenance of electrical systems increase the risk of fire and hazardous electrical conditions.

We categorized 420 electrical deficiencies into 7 categories. Figure 12 shows the breakdown of all the electrical system deficiencies in the relevant categories.

Figure 12. Electrical Deficiencies



Some GFCIs were incorrectly installed or missing. The lack of repair and maintenance was evident by broken or missing shower light fixture covers and improperly weatherproofed outdoor electrical boxes. In several buildings inspected, energized wiring and splicing was exposed. We identified noncompliant grounding and bonding that included open ground circuits on receptacles. Junction boxes were obstructed and inaccessible. Electrical disconnects were not located in sight of the powered unit. Lastly, we identified low-hanging electrical service-drops providing electricity to the main electrical panel of the house. These deficiencies pose an electrocution hazard for installation personnel and occupants.

Recommendations, Management Comments, and Our Response

Recommendation C

We recommend that the respective Military Departments, as applicable, ensure that sufficient, qualified resources are available and assigned to inspect and verify that all housing buildings and units are in compliance with requirements for electrical systems.

United States Pacific Command

The U.S. Air Force Chief of Staff responding for USPACOM agreed.

United States Forces Japan

The Deputy Director, Logistics and Installations responding for USFJ agreed.

Department of the Army

The Deputy Assistant Secretary of the Army (Installations, Housing and Partnerships) responding for the Army agreed.

Department of the Navy

The Director for Housing, Office of the Assistant Secretary of the Navy (Energy, Installation, and Environment) responding for the Navy agreed.

Department of the Air Force

The Acting Assistant Executive Officer, AF/A7C, DCS/Logistics, Installation & Mission Support, Office of the Director of Civil Engineers responding for the Air Force agreed.

Our Response

Comments from management addressed all specifics of the recommendation, and no further comments are required.

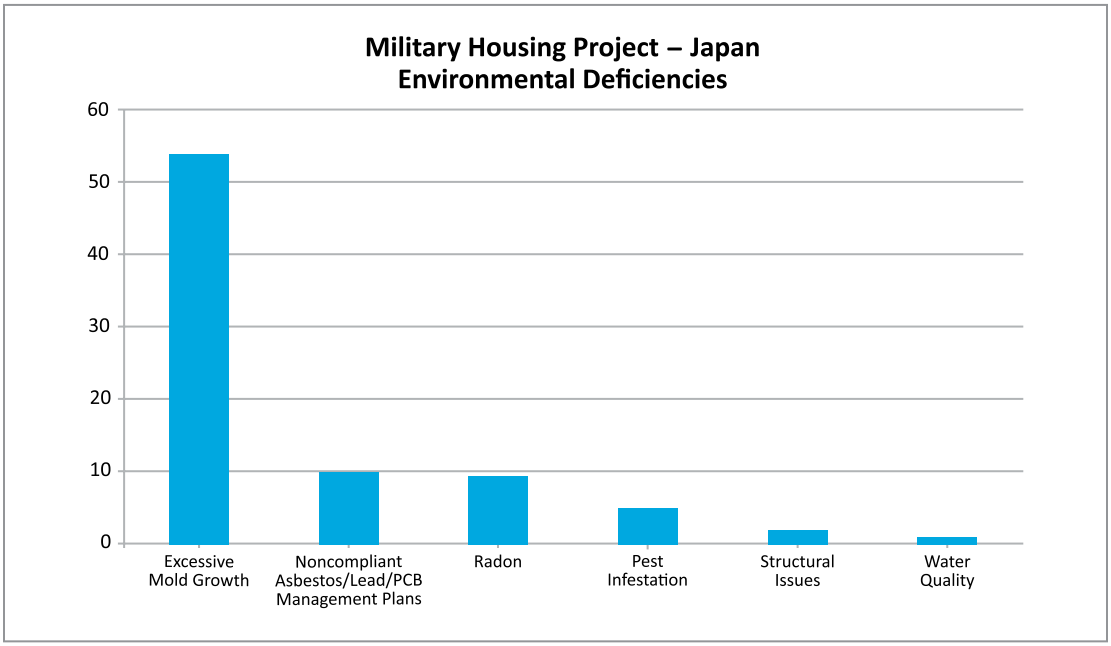
Finding D

Environmental Health and Safety

Installation personnel did not follow environmental regulations or best practices to ensure the health and safety of occupants. For example, installation personnel did not conduct preventive maintenance on HVAC units and identify source of moisture intrusion in units with mold issues. In addition, radon surveillance and mitigation was inadequate and did not meet Service-level requirements. As a result, personnel may be exposed to higher than recommended levels of environmental hazards.

We identified 87 deficiencies relating to environmental health and safety. Figure 13 shows the breakdown of all the environmental deficiencies in the relevant categories.

Figure 13. Environmental Health and Safety Deficiencies



We identified excessive mold growth in occupied buildings. When mold issues were identified, rarely was the source of water intrusion addressed. In addition, there is no DoD-wide policy or guideline on mold mitigation and control. We found that most installations had adequate asbestos and lead-based paint hazard management programs. However, some installations had not updated their inventories to identify materials with more than 0.1 percent asbestos content per the latest asbestos-containing material standards (refer to JEGS, Section C15.2.3). In addition,

lead-based paint inventories did not include newly constructed buildings or buildings that had been modified. Water quality was in compliance with JEGS. Lastly, pest infestation and poor eradication and control were evident in some occupied buildings.

Several installations did not maintain radon surveys and databases. For example, a comprehensive radon survey for all newly constructed or renovated housing units in NAF Atsugi has not been conducted since 1991. We also found a lack of guidance on radon surveillance, mitigation, and control, despite EPA studies stating that radon is a carcinogen that causes thousands of deaths each year. For example, the OEBGD does not provide guidance on radon. UFC 4-711-01 provides guidance on radon for accompanied housing but not for unaccompanied housing. Furthermore, a Department of the Army Radon Reduction Program was superseded by Army Regulation (AR) 420-1, which refers to AR 200-1 for radon action level guidelines; however, AR 200-1 has no reference to radon. See Appendix B for further details of our inspection relating to radon.

Recommendations, Management Comments, and Our Response

Recommendation D.1

We recommend that the respective Military Departments, as applicable, ensure that sufficient, qualified resources are available and assigned to inspect and verify that all housing buildings and units are in compliance with environmental health and safety requirements.

United States Pacific Command

The U.S. Air Force Chief of Staff responding for USPACOM agreed.

United States Forces Japan

The Deputy Director, Logistics and Installations responding for USFJ agreed.

Department of the Army

The Deputy Assistant Secretary of the Army (Installations, Housing and Partnerships) responding for the Army agreed.

Department of the Navy

The Director for Housing, Office of the Assistant Secretary of the Navy (Energy, Installation, and Environment) responding for the Navy agreed.

Department of the Air Force

The Acting Assistant Executive Officer, AF/A7C, DCS/Logistics, Installation & Mission Support, Office of the Director of Civil Engineers responding for the Air Force agreed.

Our Response

Comments from management addressed all specifics of the recommendation, and no further comments are required.

Recommendation D.2

We recommend that Office of the Under Secretary of Defense for Acquisition, Technology, and Logistics (OUSD (AT&L)) include guidance for both accompanied and unaccompanied housing within the OEBGD for:

a. Control and remediation of mold.

b. Radon evaluation and mitigation.

OUSD (AT&L)

The Acting Deputy Under Secretary of Defense (Installations and Environment) responding for OUSD (AT&L) non-concurred and stated that because there is no U.S. federal standard for radon or mold in the U.S., there is no standard that would be applicable to U.S. facilities outside the U.S.. AT&L further stated that modifying the OEBGD by creating standards for application outside the U.S. that do not have application inside the U.S. would undermine the purpose of the OEBGD to ensure practices outside the U.S. are carried out in a manner that is consistent with what would be done inside the U.S. To ensure each of the Military Services' practices are fully informed, AT&L will facilitate information sharing of lessons learned across the Military Services.

Our Response

We disagree with management comments from AT&L on mold and radon. They did not address the specifics of the recommendations. The Navy and Marine Corps Public Health Center stated that, "any extensive indoor mold growth should be treated as a potential health concern and removed as soon as practical — regardless of the kind of mold present." The UFC also states that humidity and moisture must be controlled to prevent mold growth in buildings (UFC 4-711-01, Section 7-1.9). The UFC provisions are indeterminate and leave each service and base to develop its own mold prevention plans, which we found were not effectively implemented. Moreover, they conflict with other energy-saving policies that reward bases for saving energy but resulted in ambient conditions that promote mold growth.

The Indoor Radon Abatement Act of 1988 established a long-term goal that indoor air be as free from radon as the ambient air outside buildings. This is facilitated by 15 U.S.C. 2669 which states, "The head of each Federal department or agency that owns a Federal building shall conduct a study for the purpose of determining the extent of radon contamination in such buildings." Because the law requires the study within the U.S., it would be reasonable to apply a similar standard for overseas buildings housing U.S. service members and their families.

Radon is also addressed in UFC 4-711-01, "Family Housing," dated July 2006. UFC 4-711-01 provides guidance on radon for accompanied housing but not for unaccompanied housing. Section 7-1.6, "Radon," points to the EPA guidelines for construction and mitigation. According to the EPA, family housing should be designed, constructed, and improved in accordance with EPA document 59 CFR 13402, "Model Standards and Techniques for Control of Radon in New Residential Buildings," dated March 1994. EPA documents contain guidelines on testing, designing and constructing radon mitigation. Additional guidance for testing, designing and constructing radon mitigation systems is contained in EPA 625-R-92-016, 625-R-93-011, 402-R-93-078, 402-R-93-003, and 402-R-92-004. Radon evaluation and testing can also be found in UFC 3-490-04A and UFGS 13287, "Radon Mitigation," dated August 2004. Furthermore, UFGS 312113, "Radon Mitigation," dated August 2011, specifies requirements for diagnostic testing for radon and designing and constructing radon mitigation systems in existing buildings and facilities. UFGS 312113 specifies that, "Radon mitigation systems shall reduce and maintain radon concentration levels below 148 Bequerels per cubic meter (4.0 pCi/L) in various buildings specified. Therefore we request that management reconsider its position and provide additional comments.

Finding E

Housing Management

Housing management systems were not fully implemented and procedures were not always followed by installation personnel. Specifically, there was inadequate housing maintenance information and record-keeping, slow response times to emergency service calls, lack of service calls and work order prioritization, and lack of follow-up. As a result, issues were not addressed in a timely manner and occurrences of similar issues were not prevented.

Although, there were only eight deficiencies in the area of housing management, their impact and effect span across other deficiency categories. For example, we identified housing management issues at Camp Foster and Camp Kinser where preventive and recurring maintenance was not performed in several buildings as required by Marine Corp Bases Japan Order 11014.1, "Standard Operating Procedure for Facilities Maintenance." Monthly preventive maintenance is required for central air conditioning equipment, especially in high humidity climates of installations in Okinawa. At several units inspected in Camp Kinser, we found no maintenance records for air-conditioning units that had moderate to significant mold on supply vents.

We identified issues with service call prioritization and response. Some service calls of a higher priority were not addressed appropriately, creating significant risk to building occupants. At Camp Foster, housing management did not respond to an emergency maintenance call nor did they create a service work order. A tenant in an unaccompanied housing unit reported a power outage in the bathroom 7 days prior to our inspection; however, no action had been taken by housing management and there is no record of the issue.

There were three main issues noted with the Interim Work Information Management System (IWIMS) at Kadena Air Base, which is a database that contains housing maintenance work orders. First, housing management is not consistent with recording information about maintenance calls. Second, IWIMS lacks information on maintenance call mitigation and repair activities. Third, IWIMS data is not being used to determine trends in housing issues, root causes and corrective action, or lessons learned for the entire installation. As a result, management is unaware of the corrective action taken and cannot prevent occurrences of similar issues.

Recommendations, Management Comments, and Our Response

Recommendation E

We recommend that the respective Military Departments, as applicable, ensure that housing management systems and processes are fully implemented and followed for all installations. This includes improving processes for tracking service calls and work orders through completion, ensuring that inspections and maintenance are conducted as required, and analyzing historical work order information for trends and lessons learned to improve housing management programs.

United States Pacific Command

The U.S. Air Force Chief of Staff responding for USPACOM agreed.

United States Forces Japan

The Deputy Director, Logistics and Installations responding for USFJ agreed.

Department of the Army

The Deputy Assistant Secretary of the Army (Installations, Housing and Partnerships) responding for the Army agreed.

Department of the Navy

The Director for Housing, Office of the Assistant Secretary of the Navy (Energy, Installation, and Environment) responding for the Navy agreed.

Department of the Air Force

The Acting Assistant Executive Officer, AF/A7C, DCS/Logistics, Installation & Mission Support, Office of the Director of Civil Engineers responding for the Air Force agreed.

Our Response

Comments from management addressed all specifics of the recommendation, and no further comments are required.

Appendix A

Scope and Methodology

We conducted this inspection from July 2013 through June 2014 to meet the intent of the Council of the Inspectors General on Integrity and Efficiency Quality Standards for Inspection and Evaluation. Those standards require that we plan and perform the inspection to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our inspection objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our inspection objectives.

We conducted an inspection of military housing in Japan for applicable requirements and specifications for:

- Fire protection systems
- Electrical systems
- Environmental health and safety
    - Radon,
    - Mold,
    - Pest infestation,
    - Water quality,
    - Lead-based paint,
    - Asbestos, and
    - Radiation
- Housing management

We did not include Housing Management in our inspection of NAF Atsugi, Camp Zama, CFA Yokosuka, and Misawa Air Base. After analyzing deficiencies from the first site visit, we established a Housing Management team to address systemic issues.

Government contract administration policies and practices were not the focus of this inspection. Additionally, we did not identify and evaluate the performance of specific service contractors supporting USFJ.

Use of Technical Assistance

Fire protection engineers, environmental engineers, master electricians, industrial hygienists, radiation health physicists, and quality assurance engineers assisted with this inspection. Subject matter experts were certified in their associated field, with several years of experience.

Use of Computer-Processed Data

We did not use computer-processed data to perform this audit.

Documentation Methodology

All meetings, analysis, and other work was documented in the form of work papers. These work papers and references were cataloged in SharePoint. SharePoint was used as the primary organization and referencing tool for the project.

When deficiencies required immediate action, NOCs were issued. The remaining deficiencies are documented in this report in accordance with the Technical Assessment Directorate's operating procedures, including all relevant quality control steps/certifications. Populated forms for each deficiency identified can be located in Appendix G.

Appendix B

Radon Survey Results

Objective

The objective was to verify that installations implemented a testing program to identify the level of indoor radon, determine whether indoor radon levels were above the EPA-recommended levels, and verify that radon mitigation systems were installed in buildings with indoor radon levels above 4 picocuries per liter (pCi/L). Also, we evaluated each Service's radon policies and guidelines.

Scope and Methodology

As part of this inspection, an independent radon survey was completed on buildings selected at random. We measured ambient radon levels in housing facilities on U.S. military installations. Radon detectors were placed in 50 housing facilities in mainland Japan and 54 housing facilities in Okinawa (both accompanied family housing and unaccompanied quarters). We made an independent selection of the units to have detectors installed based on housing type (*e.g.* high-rise, duplex, etc.). We placed a minimum of five detectors plus additional redundant detectors per base.

Measurements were taken using passive Landauer Radtrak® alpha-track radon detectors for 90 days to measure indoor radon levels. Detectors were placed in housing units or available common areas of the lowest occupied floor. Radtrak® measures the average radon concentration at the detector's location during the monitoring period. The alpha-track detector has a radiosensitive element that records alpha particle emissions (alpha tracks) from radon's natural radioactive decay. Specific radon detector placement within housing units followed EPA 402-R-92-003, Protocols for Radon and Radon Decay products Measurements in Homes, May 1993, recommendations. For quality control, duplicate detectors were placed at a minimum of 10 percent of the monitoring locations. Also, field blanks (to measure background exposure that may accumulate during shipment and storage) were submitted to the laboratory for each installation tested. Landauer meets National Radon Proficiency Program (NRPP) requirements and is a NRPP certified laboratory. Additional details on the tests can be provided upon request.

Laboratory results are provided in picocuries per liter (pCi/l) for comparison with the EPA's guideline value of 4.0 pCi/l. Retesting of radon is recommended for housing units with radon levels that are equal to or greater than 4.0 pCi/l and/or there is a statistically significant difference between the results of duplicate

detects. Where subsequent monitoring confirms an indoor radon level of 4.0 pCi/l or greater, radon mitigation strategies should be considered in accordance with the latest standards or guidance applicable to military housing in overseas locations.

Criteria

Radon is a naturally occurring, chemically inert, ubiquitous radioactive gas that is found in the air, water, and soil. Radon migrates from the surrounding soil into buildings; it enters through air spaces around pipes, cracks in concrete slabs and basement foundation blocks, and pores in concrete masonry units. In the United States, the radon concentration for outdoor air ranges from 0.02 to 1.0 pCi/L and for indoor air, the average is 1.25 pCi/L. According to the EPA, radon is a carcinogen that causes thousands of deaths each year. It is the second leading cause of lung cancer after active smoking and the leading cause among nonsmokers. The EPA recommends that homeowners mitigate their homes if the radon level is 4.0 pCi/L or greater and consider mitigation if the levels are between 2.0 pCi/L and 4.0 pCi/L.

Survey Results

The following are deficiencies identified based on our independent radon testing. Details on each item listed below can be found on the deficiency forms. See Appendix G:

1) NAF Atsugi: One building with radon level at 17.5 pCi/L but the duplicate (in this case) for the same location showed levels that were "below detection limit." We recommend retesting that location.

2) CFA Yokosuka: Two buildings with elevated radon levels; one building at 5.35 pCi/L and the second building at 23.75 pCi/L. We recommend retesting the locations.

3) Kadena AB: One building with radon level at 4.08 pCi/L and 4.39 pCi/L in two separate units. We recommend retesting that location.

4) MCAS Futenma: One building with radon level at 5.18 pCi/l. We recommend retesting that location.

5) Camp Courtney: One building with radon level at 8.84 pCi/L. We recommend retesting that location.

Radon Policy Evaluation

Based on our evaluation of policies and guidelines governing radon mitigation, we noted that there is no overall DoD policy in regards to acceptable levels of radon. However, radon is addressed in the UFC 4-711-01, "Family Housing," dated July 2006. In addition, the Unified Facilities Guide Specifications (UFGS) 31 21 13, "Radon Mitigation," dated August 2011 establishes performance requirements.

UFC 4-711-01 provides guidance on radon for accompanied housing but not for unaccompanied housing. Section 7-1.6 Radon states that, "Follow EPA recommendations for construction and mitigation. Family housing should be designed, constructed, and improved in accordance with EPA document—*Model Standards and Techniques for Control of Radon in New Residential Buildings*, 59 CFR 13402 (March 1994). Guidelines for evaluation and need and required testing can be found in UFC 3-490-04A, *EPA Radon Mitigation Standards*, and UFGS 13287 *Radon Mitigation* (August 2004)."

UFGS 31 21 13, section 1.4.1 Performance Requirements, states that, "Radon mitigation systems shall reduce and maintain radon concentration levels below [148 Bequerels per cubic meter] [4.0 pCi/L] in various buildings specified herein. Test, design and construct radon mitigation systems in accordance with EPA 402-R-93-078, EPA 402-R-93-003, EPA 402-R-92-004 and as specified herein. Additional guidance for testing, designing and constructing radon mitigation systems is contained in EPA 625-R-92-016 and EPA 625-R-93-011."

In the absence of a DoD policy, each Service has its own defined limits on monitoring and remediation terms. Information on radon requirements by each Service is shown in Table B.

Table B. Radon Requirements by Military Service

	Army	Navy/Marine Corps	Air Force
Service Requirement	Army Regulation (AR 420-1), "Army Facilities Management," dated 2012	OPNAV Instruction 5090.1C Change Transmittal 1 "Environmental Readiness Program Manual," 18 July 2011 Navy Radon Assessment and Mitigation Program (NAVRAMP) Guidance Document for Navy Family Housing, dated 10 September 2002	Air Force Instruction (AFI) 48-148, "Ionizing Radiation Protection" dated 21 September 2011
Mitigation Phase/Action Levels	Chapter 3, Paragraph 3-47c, states, "The EPA has published monitoring guidance, radon relative risk information, and action level guidelines (see AR 200-1). Installations will establish a radon assessment and mitigation program per guidance from the Environmental Management Office."	5090.1C, Sec 21-5.26 Radon. Navy activities shall manage their radon program in accordance with the NAVRAMP 30-5 Navy Policy 30-5.1 General. Navy installations shall undertake mitigation measures in buildings determined to have indoor radon levels above 4 pCi/L. Marine Corps Order (MCO) P5090.2A Change 3, "Environmental Compliance and Protection Manual," August 26, 2013, states that, "In buildings with indoor radon levels above 4 pCi/L, the Marine Corps must reduce radon to acceptable levels."	Section 5.3 The remediation schedule should adhere to the following schedule: > 20 pCi/L within one year, 4 - 20 pCi/L, within 1-3 years. Any installation found to have a single structure with concentrations greater than 4 pCi/L shall undergo a detailed assessment.
Post Mitigation Phase	No guideline because AR 200-1, dated December 13, 2007 no longer contains any reference to radon	NAVRAMP Sec 3.3 Page 20: After mitigation in the housing area has been completed, at a minimum of every two calendar years, all radon reduction systems will be inspected by a qualified mitigator and retested.	Post remediation: Remediated structures shall be reassessed by the IRSO for ambient radon concentrations no less than two weeks and no greater than six months post remediation to validate the efficacy of the remedial action.

We noted deficiencies, during the course of the inspection, which related to installations not maintaining radon surveys and databases as required by the respective Service policy.

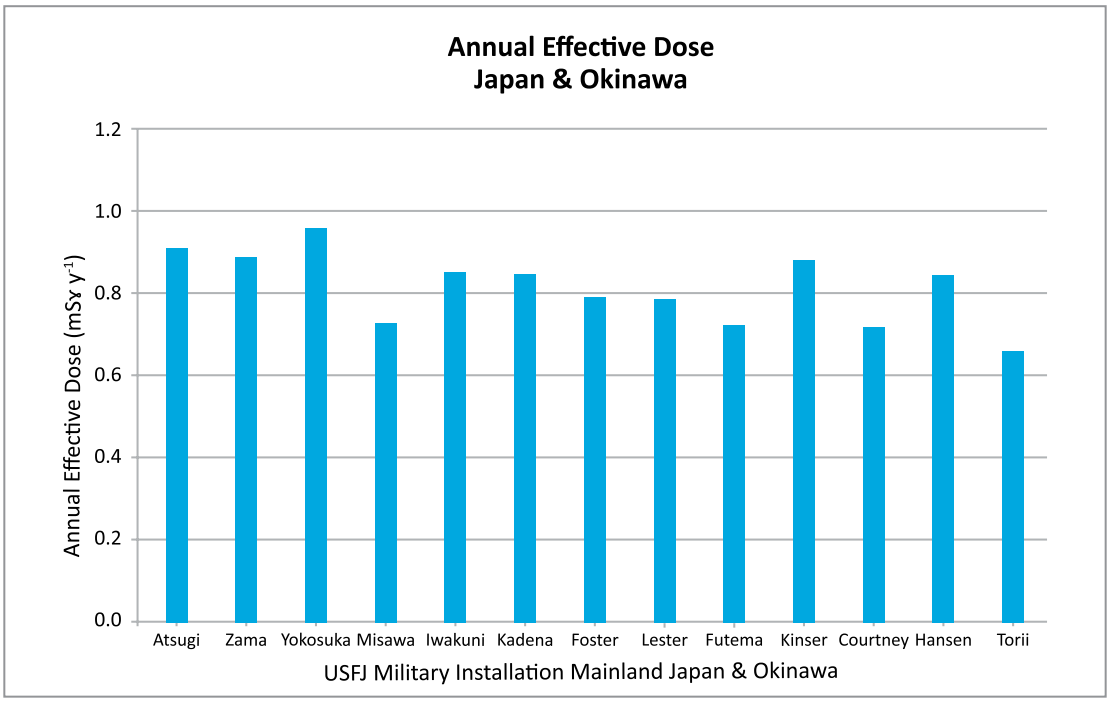
Appendix C

Radiation Survey Results

Objective

The objective of the radiation survey was to determine background radiation levels of indoor housing facilities and adjacent outdoor areas, to evaluate health risks associated with an estimated individual effective dose, and to establish baseline data for future reference in the event of subsequent environmental changes from natural or man-made causes.

Figure 14. Radiation Measurements



Scope and Methodology

We measured ambient radiation levels of building materials in housing facilities on U.S. military installations in Japan.[2] Radiation surveys were conducted in a total of 52 housing facilities in mainland Japan and 65 housing facilities in Okinawa (both accompanied family housing and unaccompanied quarters). Additionally, more than 120 external radiation measurements were taken in outdoor areas (see Figure 15), which included playgrounds and exterior perimeters of housing units and buildings, direct surface measurements of counter tops, floors, bathroom

[2] DoD IG Housing Inspection - Asia Radiological Assessment. Raynard K. Fong, MS CHP, June 4, 2014.

ceramic tile floors and walls using an inventory of DoD radiation equipment. Soil, air, food, or water sampling was not within the scope of this inspection and therefore not performed. Measurements were taken using systematic and static scanning methods with calibrated hand-held portable DoD supplied RADIACS and instruments. The exposure rate measurements were used to estimate the annual mean individual effective dose at each USFJ military installation.

The radiological survey was based on the following survey methods and approaches:

- Static and systematic integrated external radiation exposure measurements of ambient gamma radiation levels of selected indoor housing facilities and adjacent outdoor areas such as playgrounds and parks.
- Systematic scanning surveys of ambient radiation levels throughout living areas of each housing facility for gross surface and/or ambient beta and gamma radiation.
- Contact measurements to evaluate alpha radiation in building materials, ceramic tile floors and walls, granite table tops, countertops, and tile flooring.
- Isotope identifier for identifying gamma emitting radionuclides of areas where elevated measurements are observed.

The survey was accomplished using DoD radiation survey equipment supplied by Navy, Army, and Air Force activities in USFJ. Information on the survey instruments used in the field and source providers are listed in Table C.

Table C. DoD Instruments Provided by USFJ Activities

Activity	Manufacturer	Model	Serial No.	Calibration Date
AFMC DET 3 Kadena, Okinawa	Fluke Biomedical	451P	F406871	8-Aug-13
	BNC	Sam 940 Eagle	41120	Self-Calibration
BEE Misawa Air Base	Fluke Biomedical	451B	M9970J021976	20 Nov 12
USAPHC-P Zama	Fluke Biomedical	451B	0581	7 Jan 13
		451P	3011	6 Aug 13
Yokota Air Base	Canberra	ADM-300	F022580	25 Jan 13
	Canberra	ADM-300	AP-59225	25 Jan 13
USNH Yokosuka	SAIC	IM-265/PDQ	A00515	2 Nov 13
	SAIC	DT-680	A04633	2 Nov 13
MCAS Iwakuni	AN/PDR-77	IM-263/DT 669	539	14 Apr 11
	DOT unit 1956	identiFINDER-2	910385-1089	Self-Calibration

Health physicists generally agree on limiting a person's exposure beyond background radiation to about 1 millisieverts (mSv) per year from all sources. Exceptions are occupational, medical or accidental exposures. EPA and other regulatory agencies generally limit exposures from a specific source to the public to levels under 1 mSv. From a health risk perspective, the Health Physics Society recommends against quantitative estimation of health risks below an individual dose of 50 mSv per year, or lifetime dose of 100 mSv above natural sources.[3]

Figure 15. Scanning survey of park area, NAF Atusgi
Source: DoD OIG

[3] Position Statement of the Health Physics Society, revised August 2004.

Survey Results

All radiation measurements were consistent with expected background radiation (natural radiation that is always present in the environment) exposure levels in their respective prefectures. All calculations were done on exposure rate basis and summed over a 365-day period to estimate the individual yearly dose. Static measurements were taken .001 mSv in per minute then hourly rates were calculated and multiplied by 8,760 hours per year (24 h d-1 x 365 d yr -1). To simplify the calculations, and as a general approximation, conversions and weighting factors were assumed to conservatively estimate individual effective dose values. For this survey, equivalent dose is equivalent to effective dose. Estimates of time spent indoors and outdoors were factored into the calculation for individual effective dose. The calculated radiation dose from external radiation exposure is considered low, and there are no demonstrable radiation-induced health effects at these low levels. The low external radiation levels measured readings during the surveys were assumed to be primarily from cosmic and terrestrial environmental sources.

The estimated mean effective dose at each USFJ military installation was less than 1 mSv per year. In mainland Japan, the military installation with the highest and lowest estimated mean annual dose was, respectively, CFA Yokosuka with 0.96 mSv per year, and Misawa Air Base (AB) with 0.73 mSv per year. In Okinawa, the military installation with the highest and lowest estimated mean annual dose was, respectively, Kadena AB with 0.85 mSv per year, and USAG Okinawa with 0.66 mSv per year. Isotopic analyses of selected areas in housing facilities indicate the presence of natural occurring radioactive material (NORM) but no industrial or medical radioactive isotopes were identified.

The estimated individual annual doses at each USFJ installation were very low. Consequently, the individual health risks associated with these low doses are considered negligible. At these levels, there are no demonstrable radiation-induced health effects.

Appendix D

Inspection Criteria List

DoD and Services Policies and Standards

DoDI 6055.05, "Occupational and Environmental Health," November 11, 2008

DoDI 4165.63, "DoD Housing," July 21, 2008

DoDD 4715.1E, "Environmental Safety and Occupational Health," March 19, 2005

DoD 4165.63-M, "DoD Housing Management," October 28, 2010

DoDI 4715.5, "Management of Environmental Compliance at Overseas Installations," April 22 , 1996 (canceled)

DoDI 4715.05, "Environmental Compliance at Installations Outside the United States," November 1, 2013

DoD 4715.05-G, "Overseas Environmental Baseline Guidance Document," May 1, 2007

DoDD 4270.34, "Host Nation-Funded Construction Programs in the U.S. Pacific Command Area of Responsibility," April 24, 2007

DoDI 4150.07, "DoD Pest Management Program," May 29, 2008

Unified Facilities Criteria (UFC)

UFC 3-520-01, "Interior Electrical Systems," Change 2, July 01, 2012

UFC 3-560-01, "Electrical Safety, O&M," Change 4, May 01, 2012

UFC 3-600-01, "Fire Protection Engineering for Facilities," Change 3, March 01, 2013

UFC 3-601-02, "Operation and Maintenance: Inspection, Testing, and Maintenance of Fire Protection Systems," September 08, 2010

UFC 4-711-01, "Family Housing," July 13, 2006

Unified Facilities Guide Specifications (UFGS) 31 21 13, "Radon Mitigation," August 2011

Electrical Standards Criteria

National Fire Protection Association (NFPA) 70®, "National Electrical Code® (NEC®)," 2011 Edition

NFPA 70E®, "Standard for Electrical Safety in the Workplace®," 2012 Edition

Base Order (BO) 5100 31B, "Ground Occupational Safety and Health Program, SOP 12, MCBO Lockout and Tagout Standard Operating Procedure," February 26, 2013

Fire Protection Standards Criteria

NFPA 1, "Fire Code," 2012 Edition

NFPA 10, "Standard for portable fire extinguishers," 2010 Edition

NFPA 13, "Standard for the Installation of Sprinkler Systems," 2010 Edition

NFPA 13D, "Standard for the Installation of Sprinkler Systems in One- and Two-Family Dwellings and Manufactured Homes," 2010 Edition

NFPA 13R, "Standard for the Installation of Sprinkler Systems in Low-Rise Residential Occupancies," 2010 Edition

NFPA 58, "Liquefied Petroleum Gas Code Handbook," 2011 Edition

NFPA 72, "National Fire Alarm and Signaling Code," 2010 Edition

NFPA 101, "Life Safety Code," 2012 Edition

General Environmental Health and Safety Criteria

DoD "Japan Environmental Governing Standards (JEGS)," December 2012

Department of the Navy Memorandum, "Interim Technical Guidance (ITG) FY 03-4, NAVFAC Mold Response Manual," June 06, 2003

OPNAVINST 5100.23G CH-1, "Navy Safety and Occupational Health Program Manual," July 21, 2011

OPNAVINST 5100.23G, "Navy Safety and Occupational Health Program Manual," December 30, 2005

Navy Environmental Health Center Technical Manual NEHC-TM6290.91-2 Rev. B, "Industrial Hygiene, Field Operations Manual," March 1999

Facilities Criteria (FC) 4-721-10N, "NAVY and Marine Corps Unaccompanied Housing," November 01, 2012, Change 2, May 01, 2013

Marine Corps Bases Japan Order (MCBJO) 11014.1, "Standard Operating Procedures (SOP) for Facilities Maintenance," January 19, 2011

Marine Corps Order (MCO) P5090.2A Change 3, "Environmental Compliance and Protection Manual," August 26, 2013

NAVMC DIR 5100.8, "Marine Corps Occupational Safety and Health Program Manual," May 15, 2006

NAVFAC "Navy Radon Assessment and Mitigation Program (NAVRAMP)," September 10, 2002

CNFJ 11101.15 Change 1, "Handbook for Resident of COMNAVFORJAP Military Family Housing," August 12, 2005

Department of the Air Force Memorandum, "Interim Policy and Guidance for the Prevention, Surveillance, and Remediation of Water Damage and Associated Mold Contamination in Air Force (AF) Facilities," May 10, 2005

Air Forces Instruction (AFI) 91-203, "Air Force Consolidated Occupational Safety Instruction," July 25, 2013

AFI 48-148, "Ionizing Radiation Protection," September 21, 2011

AFI 32-6001, "Family Housing Management," October 24, 2008

AFI 32-6005, "Unaccompanied Housing Management," October 09, 2008

AFI 32-1001, "Civil Engineering Operations Management," September 01, 2005

AFI 32-2001, "Fire Emergency Service Program," September 09, 2008

Air Force Memorandum, "Policy to Implement Work Prioritization Model," June 14, 2013

Army Regulation (AR) 420-1, "Army Facilities Management," August 24, 2012

DA PAM 420-1-1, "Housing Management," April 02, 2009

DA PAM 200-1, "Army Radon Reduction Program," January 17, 2002

U.S. Army Center for Health Promotion and Preventive Medicine (USACHPPM) Technical Guide 277, "Army Facilities Management Information Document on Mold Remediation Issues," February 2002

U.S. Army Center for Health Promotion and Preventive Medicine (USACHPPM) Technical Guide 278, "Industrial Hygiene/Preventive Medicine Mold Assessment Guide," February 2002

Camp Zama "Department of Public Work (DPW), Standard Operating Procedure (MOLD/MILDEW)," December 12, 2011

DARWG-TP-12-01 Version 1.04, "Post 3-11 Radiological Assessment of U.S. Military Installations in Japan," May 23, 2012

American Society of Civil Engineers (ASCE), "Guideline for Structural Condition Assessment of Existing Buildings," November 1999

Contract No N40084-09-D-0003, "Structural Study Building Nos. 219, 220, 652, and 503 MCAS Futenma, Okinawa," May 17, 2011

Contract N40084-11-D-0020 Work Request No 3 Field Investigation Documentation and Engineering Report, "Provide Geotechnical Foundation Assessment Study for Existing BEQ 473, Camp Foster," October 22, 2012

Appendix E

Sample Deficiency Form

DRAFT

DOD Office of the Inspector General
TAD ASSESSMENT RECORD

DIRECTED TO (ACTIVITY/LOCATION)	PROJECT	CONTROL NUMBER

DODIG ASSESSOR	SUBMITTAL DATE
PERSON(S) CONTACTED / TITLE/ORG	CLAUSE #
	MANAGEMENT REVIEW Signature/Date:
ABSTRACT	
DETAILED DESCRIPTION OF CONDITION	
EFFECT	
RECOMMENDATION	
CRITERIA	
OBJECTIVE EVIDENCE	

1 of 1

This document, when completed, contains information exempt from mandatory disclosure under the Freedom of Information Act and must be marked FOUO (For Official Use Only).

DRAFT

IG-TAD FORM 10. May 13, 2012

Appendix F

Notices of Concerns and Responses

We issued three Notices of Concerns (NOCs) to U.S. Pacific Command (PACOM) and U.S. Forces Japan (USFJ).

- DoD OIG NOC 1, November 8, 2013 - NAF Atsugi, Camp Zama, CFA Yokosuka, and Misawa Air Base;
- DoD OIG NOC 2, December 19, 2013 - Kadena Air Base, Camp Lester, Camp Foster, MCAS Futenma, Camp Kinser, Camp Courtney, Camp McTureous, Camp Hansen, and Camp Schwab
- DoD OIG NOC 3, March 26, 2014 - MCAS Iwakuni

The NOCs identified critical health and safety deficiencies requiring immediate corrective action. Management was then invited to comment on our NOCs. We commend PACOM, USFJ and their respective base commands on their rapid response in initiating the correction of the critical deficiencies identified during the military housing inspection and listed in the NOCs. In their responses, some individual base commands took exception to some areas of concerns. These are listed with our response in the following Tables F1, F2, and F3, and then followed by our original NOCs.

- Table F1. Disputed Deficiencies NOC 1 November 8, 2013 - NAF Atsugi, Camp Zama, CFA Yokosuka, and Misawa Air Base
- Table F2. Disputed Deficiencies NOC 2 December 19, 2013 - Kadena Air Base, Camp Lester, Camp Foster, MCAS Futenma, Camp Kinser, Camp Courtney, Camp McTureous, Camp Hansen, and Camp Schwab
- Table F3. Disputed Deficiencies NOC 3 March 26, 2014 - MCAS Iwakuni

Table F1. Disputed Deficiencies NOC 1 November 8, 2013 - NAF Atsugi, Camp Zama, CFA Yokosuka, and Misawa Air Base

NOC Deficiency	Management Response	Our Response
Lack of Ground Fault Interrupters (GFCI) 46 deficiencies Identified	Non-Concur: Standard practice is to install GFCI protected circuit breakers in the electrical panel serving the housing unit. It is U.S. Army Engineering District, Japan's (USAEDJ) technical position that the Host Nation Construction (HNC) practice meets the NEC requirement for GFCI.	We disagree: In all deficiencies electrical panels were checked and tested to verify if the particular circuit being inspected was GFCI breaker protected and functioning. This indicates that the host nation requirements are not being met.
Lack of Bonding between ground and neutral bars in main panels 11 deficiencies identified	Non-Concur: Current GOJ practice meets requirement. USAEDJ will continue to verify the appropriate bonding between the neutral and ground bar in the main service disconnect.	We disagree: It appears that an incorrect interpretation of an equipment ground deficiency (ZAM-EL-130923-007) as a bonding violation may cause all bonding violations to be dismissed. We are encouraged that an assessment will be performed to determine if any of the older units are in compliance.

Table F2. Disputed Deficiencies NOC 2 December 19, 2013 - Kadena Air Base, Camp Lester, Camp Foster, MCAS Futenma, Camp Kinser, Camp Courtney, Camp McTureous, Camp Hansen, and Camp Schwab

NOC Deficiency	Management Response	Our Response
Lack of Ground Fault Interrupters (GFCI) 97 deficiencies identified	Non-Concur: Standard practice is to install GFCI protected circuit breakers in the electrical panel serving the housing unit. It is USAEDJ's technical position that the HNC practice meets the NEC requirement for GFCI.	We disagree: In all deficiencies electrical panels were checked and tested to verify if the particular circuit being inspected was GFCI breaker protected and functioning. This indicates that the host nation requirements are not being met.
Lack of Bonding between ground and neutral bars in main panels 3 deficiencies identified	Non-Concur: Current GOJ practice meets requirement. USAEDJ will continue to verify the appropriate bonding between the neutral and ground bar in the main service disconnect.	We disagree: USFJ's Response does not indicate that conditions cited in these deficiencies were investigated; therefore we maintain that these deficiencies are accurate and correct.

Table F3. Disputed Deficiencies NOC 3 March 26, 2014 - MCA S Iwakuni

NOC Deficiency	Management Response	Our Response
Exit stair doors and frames have no evidence indicating that they are fire rated/fire-resistant. IWA-FP-140303-032, 036, 057, & 063	Non-Concur: Standard law of Japan has no requirement for fire rating labels on doors or frames.	We disagree: Response did not identify what DoD instruction, standard, or regulation permits use of local products that do not meet NFPA 101 requirements.
Laundry rooms were not properly separated from the rest of the floor by fire-rated construction. IWA-FP-140303-070, 099, 100, & 101	Non-Concur: The finding applies to new hotels and dormitories.	We disagree: Compliance with current requirements can also be triggered by specific work in the vicinity of the laundry rooms, such as the renovation work resulting in partial demolition of laundry room walls. When rebuilt, those walls must comply with the current code, in accordance with UFC 3-600-01 §1-3.2.2. Response did not document continuity of the existing condition without renovation.
Non-position indicating valves are installed in sprinkler system supply pipes making it difficult to determine if the valve is opened or closed. IWA-FP-140303-080	Non-Concur: Valves for water supply to the sprinkler system provide visual indication of whether they are open or closed and are now locked. Also fire protection contractor performs intermediate maintenance for the fire pumps in accordance with UFC.	We disagree: While some control valves in the fire pump room were indicating-type valves, not all control valves were indicating. Locking is a good interim measure, but does not correct the deficiency of non-indicating valves in the sprinkler system.

NOC 1: NAF Atsugi, Camp Zama, CFA Yokosuka, and Misawa Air Base (November 8, 2013)

DoD OIG NOC 1, November 8, 2013

INSPECTOR GENERAL
DEPARTMENT OF DEFENSE
4800 MARK CENTER DRIVE
ALEXANDRIA, VIRGINIA 22350-1500

November 8, 2013

MEMORANDUM FOR COMMANDER, UNITED STATES PACIFIC COMMAND

SUBJECT: Notice of Concern – Military Housing Inspections – Asia
(Project No. D2013- DTOTAD-0003)

This Notice of Concern is to inform you that as part of the subject inspection, we have identified issues that require your immediate attention. The inspection of military housing at U.S. facilities in Japan was conducted from September 14 - 30, 2013, at Naval Air Facility (NAF) Atsugi, Camp Zama, Commander Fleet Activities (CFA) Yokosuka, and Misawa Air Base (AB). We identified findings in fire protection, electrical systems, and environmental health. Copies of all findings were provided to the respective base commander at the conclusion of each base inspection. Furthermore, at the conclusion of the OIG inspection in Japan, a report will be issued to address all findings.

While we view all findings as significant to the health and safety of the warfighter and their families, the 46 findings listed below are critical requiring immediate corrective action. The findings have been uploaded to the AMRDEC Safe Access File Exchange website. You will receive an automated AMRDEC delivery notice e-mail with instructions detailing the process for downloading the complete findings for review and comment.

NAF Atsugi

- Buildings 299, 305, 303, 304, 431, 451, 914, 3055, and 3069 - no smoke alarms in sleeping areas, risk of injury or death (Findings ATS-FP-130917 -001, -003, -004, -005, -006, -007, -009, -011, and -012).
- Building 3069 - Generator wires contact and abrade against sharp edge of junction box. Abrasion of insulation could result in an electrical short to the junction box causing a catastrophic failure to the emergency back-up power system (Finding ATS-EL-130917-017).
- Building 914 - Lighting fixture dangling by the energized conductor wire providing risk of electrocution, shock or fire (Finding ATS-EL-130917-019).
- Building 303 - The front cover of the electrical panel was missing, exposed energized conductors may result in risk of electrocution, shock or fire (Finding ATS-EL-130917-015).
- Buildings 299, 303, 304, and 305, "single family houses" - Inadequate mitigation of condensation, and moisture intrusion resulting in mold conditions and health hazards (Findings ATS-EN-130917- 005B, -006A, -007A, and -008A).
- Building 1290 "janitorial/storage closet" – Excessive mold build up, risk of health hazard (Finding ATS-EN-130917-009A).

Camp Zama

- Buildings 47, 80, 81, 875, 1050, 147, 430, and 635 - no smoke alarms in sleeping areas, risk of injury or death (Findings ZAM-FP-130923 -001, -002, -003, -007, -009, -014, -015, and -016).

DoD OIG NOC 1, November 8, 2013 (cont'd)

- Building 635 - The power lines hanging low across dwelling posing a safety hazard to the occupants (Finding ZAM-EL-130923-012).
- Building 761 - Improper splicing of fan electrical cord in laundry room, risk of electrocution, shock or fire (Findings ZAM-EL-130923-005).

CFA Yokosuka

- Buildings 1239, 1241, 1243, 1552, 624, 625, 1393, and 665 – no smoke alarms in sleeping areas, risk of injury or death (Findings YOK-FP-130925-003A, -004, -005, -006, -007, -008, -009, -010, -011, -012, and -013).
- Building 1939 - A broken electrical conduit on the fire pump could jeopardize firefighting equipment (Finding YOK-EL-130925-035).

Misawa AB

- Buildings 212, 1889, 1891, 1892, 1893, 1894, and 1895 - no smoke alarms in sleeping areas, risk of injury or death (Findings MIS-FP-130930-014, -015, -016, -017, -018, -019, and -020).

Also of concern are electrical grounding and bonding issues which are systemic across American bases in Japan. These include a lack of Ground Fault Circuit Interrupters and a lack of bonding between ground and neutral bars at the main electrical panels. The Command should begin addressing these issues immediately as well.

In accordance with the requirements of DoD Directive 7650.3, please provide your comments and proposed corrective actions by December 9, 2013. We will include copies of your comments in our final report. If possible, send a portable document format (.pdf) file containing your comments to [redacted]

We appreciate the courtesies and support extended to the inspection staff. Please direct questions to [redacted]

Randolph R. Stone
Deputy Inspector General
Policy and Oversight

cc:
Under Secretary of Defense for Acquisition, Technology and Logistics
Assistant Secretary of the Air Force (Financial Management and Comptroller)
Commander, United States Forces Japan
Naval Inspector General
Auditor General, Department of the Army

2

NOC 2: Kadena Air Base, Camp Lester, Camp Foster, MCAS Futenma, Camp Kinser, Camp Courtney, Camp McTureous, Camp Hansen, and Camp Schwab (December 19, 2013)

DoD OIG NOC 2, December 19, 2013

INSPECTOR GENERAL
DEPARTMENT OF DEFENSE
4800 MARK CENTER DRIVE
ALEXANDRIA, VIRGINIA 22350-1500

December 19, 2013

MEMORANDUM FOR COMMANDER, UNITED STATES PACIFIC COMMAND

SUBJECT: Notice of Concern – Military Housing Inspections – Asia
(Project No. D2013- DTOTAD-0003)

This Notice of Concern is to inform you that the Department of Defense, Office of Inspector General (OIG), has identified issues that require your immediate attention. The inspection of military housing at U.S. facilities in Japan was conducted from October 28, 2013, to November 22, 2013, at Kadena Air Base (AB), Camp Lester, Camp Foster, Marine Corps Air Station (MCAS) Futenma, Camp Kinser, Camp Courtney, Camp McTureous, Camp Hansen, Torii Station, and Camp Schwab. We identified findings in fire protection, electrical systems, structures, and environmental health. Copies of all findings were provided to the respective base commander after the completion of each base inspection.

Although the DoD OIG views all findings as significant to the health and safety of the warfighter and their families, the 71 findings referred to below are critical and require immediate corrective action. The findings will be provided to all the recipients of this Notice of Concern. We uploaded the findings to the Aviation and Missile Research Development and Engineering Center (AMRDEC) Safe Access File Exchange website. You will receive an automated AMRDEC delivery notice e-mail with instructions detailing the process for downloading the complete findings for review and comment.

Kadena AB

- Buildings 2442, 2443, 2385, 2647, 2660, 2662, 2791, 2793, 8208, 2265, 2267, 2269, 2378, 2794, 2797, 6816, 9926, 9925, and 2794 - No smoke alarms in sleeping areas increases the risk of injury or death (Findings KAD-FP-131028-001, -002, -003, -004, -005, -006, -007, -008, -009, 010, -011, -012, -013, -014, -015, -016, -017, -018, -019, and -020).
- Building 2791 - Improper electrical power service drops increase the risk of shock and/or electrocution (Finding KAD-EL-131028-056).
- Buildings 629 and 613 - Broken light fixtures in shower/bath areas increase the risk of shock and/or electrocution (Findings KAD-EL-131028-061 and -062).
- Buildings 2442 and 2443 - Very significant mold issues increases the risk of tenant illness (Finding KAD-EN-131028-009).

Camp Lester

- Buildings 6101, 6193, 6105, 6107, 6191, 6192, and 6193 - No smoke alarms in sleeping areas increases the risk of injury or death (Findings LES-FP-131031-001, -002, -003, -004, -005, -006, and -018).

DoD OIG NOC 2, December 19, 2013 (cont'd)

Camp Foster

- Buildings 470, 472, 4138, 5698, 5700, and 5703 - No smoke alarms in sleeping areas increases the risk of injury or death (Findings FOS-FP-131104-043, -044, -045, -046, -047, and -048).
- Buildings 4093 and 4090 - Improper electrical power service drops increase the risk of shock and/or electrocution (Findings FOS-EL-131104-039 and -040).
- Building 470 - An ungrounded cold water circulating pump increases the risk of shock and/or electrocution (Finding FOS-EL-131104-060).
- Buildings 473 and 5703 - Broken light fixtures in shower/bath areas increase the risk of shock and/or electrocution (Findings FOS-EL-131104-044 and -046).
- Buildings 5698 and 5700 - Very significant mold issues increases the risk of tenant illness (Findings FOS-EN-131104-009 and -010).

MCAS Futenma

- Building 219 - Structural issues that expose building occupants to the risk of falling concrete and severe injury (Finding FUT-EN-131107-003).
- Building 431 - Very significant mold issues increases the risk of tenant illness (Finding FUT-EN-131107-002).

Camp Kinser

- Buildings 1407, 1411, 1418, 1420, 1423, 846, 858, and 1088 - No smoke alarms in sleeping areas increases the risk of injury or death (Findings KIN-FP-131108-001, -002, -003, -004, -005, -033, -034, and -035).
- Building 1210 - Broken light fixtures in shower/bath areas increase the risk of shock and/or electrocution (Finding KIN-EL-131108-013).
- Building 1407 - An ungrounded garbage disposal increases the risk of shock and/or electrocution (Finding KIN-EL-131108-022).

Camp Courtney

- Building 4300 - Exterior stair railing is damaged, creating fall hazard (Finding COU-FP-131112-015).

Camp McTureous

- Buildings 5105, 5106, and 5107 - No smoke alarms in sleeping areas increasing the risk of injury or death (Findings MCT-FP-131112-001, -002, and -003).

Camp Hansen

- Building 2655, 2820, and 2441 - No smoke alarms in sleeping areas increases the risk of injury or death (Findings HAN-FP-131114-019, -020, and -053).

2

DoD OIG NOC 2, December 19, 2013 (cont'd)

- Buildings 2655 and 2820 - Improper grounding and reverse polarity increase the risk of fire, shock, or electrocution (Findings HAN-EL-131114-005 and -006).
- Buildings 2655 and 2441 - Broken light fixtures in shower/bath areas increase the risk of electrocution (Findings HAN-EL-131114-009 and -040).
- Building 2495 - Exposed fuel-soaked electrical wire insulation could start a fire due to the boiler fuel supply. (Finding HAN-EL-131114-029).

Camp Schwab

- Building 3409 - No smoke alarms in sleeping areas increases the risk of injury or death (Findings SCH-FP-131119-007).
- Building 3409 - Unreliable smoke detectors are causing false alarms, rendering them ineffective as a warning device and increasing the risk of injury or death (Finding SCH-FP-131119-019).
- Building 3425 - Improper dead-front grounding on the panel increases the risk of arc flash, shock, or electrocution (Finding SCH-EL-131119-010).

Also of concern are systematic electrical grounding and bonding issues at all bases. These include a lack of Ground Fault Circuit Interrupters and a lack of bonding between ground and neutral bars at the main electrical panels. Additionally, the "Lock-out Tag-out" process lacks discipline and documentation and therefore, it is ineffective in providing traceability for electrical changes and/or repairs. These issues will be addressed in our report.

In accordance with requirements of DoD Directive 7650.3, please provide your comments and proposed corrective actions by January 31, 2014. We will include copies of the comments in the report. If possible, send a portable document format (.pdf) file containing your comments to [redacted]

We appreciate the courtesies and support extended to the DoD OIG staff. Please direct questions [redacted]

Randolph R. Stone
Deputy Inspector General
Policy and Oversight

cc:
Under Secretary of Defense for Acquisition, Technology and Logistics
Assistant Secretary of the Air Force (Financial Management and Comptroller)
Commander, United States Forces Japan
Naval Inspector General
Auditor General, Department of the Army

3

NOC 3: MCAS Iwakuni (March 26, 2014)

DoD OIG NOC 3, March 26, 2014

INSPECTOR GENERAL
DEPARTMENT OF DEFENSE
4800 MARK CENTER DRIVE
ALEXANDRIA, VIRGINIA 22350-1500

March 26, 2014

MEMORANDUM FOR COMMANDER, UNITED STATES FORCES JAPAN

SUBJECT: Notice of Concern – Military Housing Inspections – Asia
(Project No. D2013- DTOTAD-0003)

This Notice of Concern is to inform you that the Department of Defense, Office of the Inspector General (OIG), has identified issues that require your immediate attention. The inspection of military housing at U.S. facilities in Japan was conducted from March 3 to 7, 2014, at Marine Corps Air Station (MCAS) Iwakuni. We identified findings in fire protection, electrical systems, structures, and environmental health. Copies of all findings were provided to the base commander at the conclusion of the inspection. At the conclusion of our inspection in Japan, a report will be issued to address all findings for all the bases inspected.

Although the DoD OIG views all findings as significant to the health and safety of the warfighter and their families, the following 28 findings are critical and require immediate corrective action. The findings will be provided to all recipients of this Notice of Concern via uploads to the Aviation and Missile Development and Engineering Center (AMRDEC) Safe Access File Exchange website. You will receive an automated AMRDEC delivery notice e-mail with instructions detailing the process for downloading the complete findings for review and comment.

MCAS Iwakuni – 28 Findings

Electirical

- Buildings 937, 1264, 1263, and 318 - The main bonding jumper between neutral and ground bars is missing and not bonded at the main electrical panel or the switch gear at the main transformer, increasing the risk of fire, equipment damage, or possible electrocution (Findings IWA-EL-140303-007, -015, -016, and -029).

- Buildings 960, and 961 - The main bonding conductor is improperly sized at the first disconnecting source, increasing the risk of fire, equipment damage, or possible electrocution (Findings IWA-EL-140303-010, and -011).

- Building 313 - A severed ground conductor is present near the mechanical/electrical room, thereby increasing the risk of fire, equipment damage, and/or electrocution (Finding IWA-EL-140303-024).

DoD OIG NOC 3, March 26, 2014 (cont'd)

Fire Protection

- Buildings 1264, 942, 657, and 960 - No smoke alarms in sleeping areas. Increased risk of injury or death (Findings IWA-FP-140303-019, -034, -037, and -043).

- Building 955 - Shelving is blocking the fire sprinklers in the tenant storage areas, thereby increasing risk of fire growing unchecked, threatening loss of life and property (Finding IWA-FP-140303-024).

- Buildings 955, 1368, and 313 - Exit stair doors and frames have no evidence indicating that they are fire rated/fire-resistance, increasing the risk of rapid spreading smoke and flames throughout the building, resulting loss of life and property (Findings IWA-FP-140303-032, -036, -057, and -063).

- Buildings 314, and 313 - Stair doors missing closure mechanisms allowing rapid spread of fire and smoke vertically throughout the building and possibly rendering the exit stair unusable. Increased risk of loss of life and property (Finding IWA-FP-140303-069, and -082).

- Buildings 313, 314, 1368, and 1388 - Laundry rooms were not properly separated from the rest of the floor by fire-rated construction thereby increasing the risk of a fire in the laundry room spreading rapidly throughout the building. Increase risk of loss of life and property (Findings IWA-FP-140303-070, -099, -100, and -101).

- Building 906 - The fire sprinklers in the community room were blocked by a jungle gym. Obstructed, incomplete sprinkler coverage can permit fires to grow unchecked, resulting in increased risk of loss of life and property (Finding IWA-FP-140303-059).

- Building 657 - Non-position indicating valves are installed in sprinkler system supply pipes making it difficult to determine if the valve is opened or closed, increasing risk of loss of life and property (Finding IWA-FP-140303-080).

- Buildings 657, 314, and 318 - The sprinkler system and standpipe riser control valves not monitored by the building fire alarm system. Risk of valves being inadvertantly closed and rendering the sprinkler system inoperable, leading to increased risk of loss of life and property (Findings IWA-FP-140303-086, -093, and -094).

- Building 1190 - The fire pump controller electrical polarity indicates a phase reversal fault, rendering the fire pump (and by extension the sprinkler system) inoperable, increasing the risk of loss of life and property (Finding IWA-FP-140303-103).

In accordance with requirements of DoD Directive 7650.3, please provide your comments and proposed corrective actions by April 28, 2014. We will include copies of the comments in the report. If possible, send a portable document format (.pdf) file containing your comments to [redacted]

2

DoD OIG NOC 3, March 26, 2014 (cont'd)

We appreciate the courtesies and support extended to the DoD OIG staff. Please direct questions to [redacted]

Randolph R. Stone
Deputy Inspector General
Policy and Oversight

cc:
Under Secretary of Defense for Acquisition, Technology and Logistics
Assistant Secretary of the Air Force (Financial Management and Comptroller)
Commander, United States Pacific Command
Naval Inspector General
Auditor General, Department of the Army
Commander, MCAS Iwakuni

3

Appendix G

Deficiencies

Recipients of this report will receive an automated Aviation and Missile Research, Development, and Engineering Center (AMRDEC) file exchange delivery notice e-mail with instructions detailing the process for downloading all of the deficiencies identified during this inspection.

Management Comments

Department of the Army Response

DEPARTMENT OF THE ARMY
OFFICE OF THE ASSISTANT SECRETARY OF THE ARMY
INSTALLATIONS, ENERGY AND ENVIRONMENT
110 ARMY PENTAGON
WASHINGTON, DC 20310-0110

ASA IEE

28 August 2014

MEMORANDUM FOR INSPECTOR GENERAL, DEPARTMENT OF DEFENSE, 4800 MARK CENTER DRIVE, ALEXANDRIA, VIRGINIA 22350-1500

SUBJECT: Military Housing Inspection - Japan (Project No. D2013-DT0TAD-0003)

1. The Army concurs with recommendations A thru D.1 and E. My staff reviewed and concurs with the U.S. Army Installation Management Command, Pacific Region proposed corrective actions to the noted deficiencies requiring immediate action.

2. Specific actions were taken to ensure noted life, safety and health deficiencies do not exist in other housing units as noted in recommendations A and B.

3. POC for this action is [redacted]

Paul D. Cramer
Deputy Assistant Secretary of the Army
(Installations, Housing and Partnerships)

Printed on Recycled Paper

Department of the Navy Response

DoD IG Draft Report: "Military Housing Inspections - Japan"
(Project No. D2013-D0TAD-0003)
Department of the Navy Comments

DoD IG Recommendation A. We recommend that the respective Military Departments, as applicable:

a. Conduct an effective root cause analysis and corrective action for all 1,051 deficiencies in this report.
b. Ensure that these deficiencies do not exist in other housing units.
c. Ensure the inspection, maintenance, and repair program is in compliance with applicable codes and standards for fire protection systems, electrical systems, and environmental health and safety.

Department of the Navy Response: Concur. Actions are either complete or underway to address the deficiencies noted in the report and ensure that those deficiencies do not exist in other housing units.

Commander, Navy Region Japan (CNRJ) has conducted an effective root cause analysis and corrective actions for 134 deficiencies (60 for NAF Atsugi and 74 for CFA Yokosuka) noted on the report. To date, there are 27 pending corrective actions with projected completion dates and 5 units are unoccupied and scheduled for demolition in fiscal year 2015. CNRJ has ensured that these deficiencies do not exist in other region housing units.

The Marine Corps has initiated inspections to validate discrepancies and identify additional maintenance and repair work. Completion of facility service tickets labeled DoDIG discrepancy is currently 70%.

DoD IG Recommendation B. We recommend that the respective Military Departments, as applicable, ensure that sufficient, qualified resources are available and assigned to inspect and verify that all housing buildings and units are in compliance with requirements for fire protection systems.

Department of the Navy Response: Concur.

The Navy and Marine Corps will ensure that sufficient, qualified resources are available and assigned to inspect and verify that all housing buildings and units are in compliance with requirements for fire protection systems.

With respect to fire sprinkler systems, these systems will be installed as required in conjunction with major facility projects in accordance with governing instructions (e.g., Unified Facilities Criteria).

DoD IG Recommendation C. We recommend that the respective Military Departments, as applicable, ensure that sufficient, qualified resources are available and assigned to inspect and

Department of the Navy Response (cont'd)

verify that all housing buildings and units are in compliance with requirements for electrical systems.

Department of the Navy Response: Concur.

The Navy and Marine Corps will ensure that sufficient, qualified resources are available and assigned to inspect and verify that all housing buildings and units are in compliance with requirements for electrical systems.

DoD IG Recommendation D.1. We recommend that the respective Military Departments, as applicable, ensure that sufficient, qualified resources are available and assigned to inspect and verify that all housing buildings and units are in compliance with environmental health and safety requirements.

Department of the Navy Response: Concur.

The Navy and Marine Corps will ensure that sufficient, qualified resources are available and assigned to inspect and verify that all housing buildings and units are in compliance with environmental health and safety requirements.

DoD IG Recommendation E. We recommend that the respective Military Departments, as applicable, ensure that housing management systems and processes are fully implemented and followed for all installations. This includes improving processes for tracking service calls and work orders through completion, ensuring that inspections and maintenance are conducted as required, and analyzing historical work order information for trends and lessons learned to improve housing management programs.

Department of the Navy Response: Concur.

The Navy and Marine Corps will ensure that housing management systems and processes are fully implemented and followed for all installations. This includes improving processes for tracking service calls and work orders through completion, ensuring that inspections and maintenance are conducted as required, and analyzing historical work order information for trends and lessons learned to improve housing management programs.

Department of the Air Force Response

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS UNITED STATES AIR FORCE
WASHINGTON, DC

22 Jul 14

MEMORANDUM FOR INSPECTOR GENERAL, DEPARTMENT OF DEFENSE (DoDIG)

FROM: HQ USAF/A7C
1260 Air Force Pentagon
Washington, DC 20330-1260

SUBJECT: Military Housing Inspection - Japan (Project No. D2013-DT0TAD-0003)

The Air Force takes seriously the health, safety, and quality of life of all service members residing in housing we manage. The Air Force has reviewed and concurs with the findings and recommendations outlined in the Military Housing Inspection – Japan Report, dated 17 June 2014. Our Japan installations are actively engaged in corrective actions for the findings cited in the report, many of which are already completed. They have continued inspecting our housing inventory for similar deficiencies and are monitoring the progress until we are assured all the necessary corrective actions are complete.

As requested, the Air Force's official responses are attached. If there are any questions, please have your staff contact [redacted]

TIMOTHY S. GREEN, Brig Gen, USAF
Director of Civil Engineers
DCS/Logistics, Installations & Mission Support

Attachment:
Air Force Response to DoDIG Recommendations in Military Housing Inspection - Japan

Office of the Under Secretary of Defense for Acquisition, Technology, and Logistics Response

OFFICE OF THE UNDER SECRETARY OF DEFENSE
3000 DEFENSE PENTAGON
WASHINGTON, DC 20301-3000

ACQUISITION, TECHNOLOGY AND LOGISTICS

JUL 24 2014

MEMORANDUM FOR DEPUTY INSPECTOR GENERAL POLICY AND OVERSIGHT

THROUGH: DIRECTOR, ACQUISITION RESOURCES AND ANALYSIS 7/24/14

SUBJECT: Response to DoDIG Draft Report on Military Housing Inspection - Japan (Project No. D2013-DT0TAD-0003)

As requested, I am providing a response to Recommendation D.2 contained in the subject report.

Recommendation D.2: We recommend that OUSD(AT&L) include guidance for both accompanied and unaccompanied housing within the Overseas Environmental Baseline Guidance Document (OEBGD) for:

a. Control and remediation of mold.
b. Radon assessment and mitigation.

Response:
Non-Concur. The Military Services take multiple approaches to assessing and controlling mold and radon. This variability reflects the continuing evolution in the knowledge of health risk assessment and control procedures which is also reflected in guidelines –but not the United States (U.S.) legal standards – issued by regulatory authorities. Because there is no U.S. federal standard for radon or mold in the U.S., there is no standard that would be applicable to U.S. facilities outside the U.S. Modifying the OEBGD by creating standards for application outside the U.S. that do not have application inside the U.S. would undermine the purpose of the OEBGD to ensure practices outside the U.S. are carried out in a manner that is consistent with what would be done inside the U.S. To ensure each of the Military Services' practices are fully informed, we will facilitate information sharing of lessons learned across the Military Services.

Please contact [redacted] if additional information is required.

John Conger
Acting Deputy Under Secretary of Defense
(Installations and Environment)

United States Pacific Command Response

COMMANDER, U.S. PACIFIC COMMAND
(USPACOM)
CAMP H.M. SMITH, HAWAII 96861-4028

9 September 2014

MEMORANDUM FOR DEPUTY INSPECTOR GENERAL POLICY AND OVERSIGHT

SUBJECT: Official Draft Report – Military Housing Inspections Japan
(Project No. D2013- DT0TAD-0003)

Reference: USFJ 20140617 Draft Report DoD OIG Military Housing Inspections – Japan
D2013-DT0TAD-0003

USPACOM appreciates the opportunity to review the Draft Report on Military Housing Inspections – Japan (referenced). USPACOM staff has reviewed and does not have any further comments. We concur with the responses provided by each of the Services, Attachments (1-4).

The health, safety and quality of life of all service members stationed in USPACOM's AOR is important to our mission. The USPACOM staff will continue to coordinate with USFJ and the Service Components as they work to resolve issues identified in this report.

My point of contact for this action is [redacted]. Please contact him with any further questions at [redacted]

JOHN L. DOLAN
Major General, U.S. Air Force
Chief of Staff

Attachments:
1. Navy Military Housing Inspections Japan - DON Comments
2. Army DoD OIG Japan Housing Reply
3. Air Force Response to DoD OIG Recommendations in Military Housing Inspection - Japan
4. Air Force Response Memo to DoD OIG Recommendations in Military Housing - Japan

cc:
J004
J4
Chief of Staff, United States Forces Japan

United States Forces Japan Response

HEADQUARTERS
UNITED STATES FORCES, JAPAN
APO AREA PACIFIC 96328-5068

9 September 2014

MEMORANDUM FOR COMMANDER, USPACOM
ATTN: CAPT JOSEPH E. GREALISH, USPACOM/J44

FROM: HQ, USFJ/J4

SUBJECT: Official Draft Report Review Military Housing Inspections Japan
(Project No. D2013-DTODAD-0003)

Reference: DoD Inspector Official Draft Report, Military Housing Inspection, dated 17 Jun 2014

1. HQ, USFJ acknowledges receipt of the referenced. draft report for Military Housing Inspection - Japan, as well as the reviews and comments of the Military Department provided through the DoD Inspector General (IG). We concur with the draft report, as well as the comments and corrective actions outlined by the Military Departments.

2. The USFJ point of contact for this action is [redacted] Please contact him with any further questions at [redacted]

CHRISTOPHER J. MICHELSEN
Colonel, U.S. Marine Corps
Deputy Director, Logistics and Installations

Acronyms and Abbreviations

ACM	Asbestos Containing Material
ADM	Add-Drop Multiplexer
AFMC DET	Air Force Materiel Command Detachment
AR	Army Regulation
ASCE	American Society of Civil Engineers
BEE	Bioenvironmental Engineering Office
BO	Base Order
BNC	Berkeley Nucleonics Corp.
CEG	Civil Engineering Group
CFA	Commander Fleet Activities
CNFJ	Commander Naval Forces Japan
DA PAM	Department of the Army Pamphlet
DOD	Department of Defense
DODD	Department of Defense Directive
DODG	Department of Defense Guidance
DODI	Department of Defense Instruction
DODM	Department of Defense Manual
DoD OIG	Department of Defense Office of Inspector General
DPW	Department of Public Works
EPA	Environmental Protection Agency
FGS	Final Governing Standards
GFCI	Ground Fault Circuit Interrupter
HNC	Host Nation Construction
HVAC	Heating, Ventilation, and Air Conditioning
JEGS	Japanese Environmental Governing Standards
IWIMS	Interim Work Information Management System
ITG	Interim Technical Guidance
MCAS	Marine Corps Air Station
MCBJO	Marine Corps Base Japan Order
MCB	Marine Corps Base
MCO	Marine Corps Order
mSv	Millisieverts
MREM	Millirem

Acronyms and Abbreviations (cont'd)

NAF	Naval Air Facility
NFPA	National Fire Protection Association
NAVFAC	Naval Facilities Engineering Command
NAVRAMP	Navy Radon Assessment and Mitigation Program
NEC	National Electrical Code
NORM	Natural Occurring Radioactive Material
NOC	Notice of Concerns
OIG	Office of Inspector General
O&M	Operations and Maintenance
OPNAVINST	Chief of Naval Operations Instructions
OUDS (AT&L)	Office of the Under Secretary of Defense for Acquisition, Technology, and Logistics
PACOM	U.S Pacific Command
pCi/L	Picocuries Per Liter
RADIAC	Radiation Detection, Indication And Computation
REM	Roentgen Equivalent in Man
SAIC	Science Applications International Corporation
SASC	Senate Armed Services Committee
TAD	Technical Assessment Directorate
USACHPPM	United States Army Center for Health Promotion & Preventive Medicine
USADEJ	U.S. Army Engineering District, Japan
USAG	United States Army Garrison
USAG-J	United States Army Garrison Japan
USARJ	United States Army Japan
USFJ	United States Forces Japan
USMC	United States Marine Corps
USNH	United States Naval Hospital
µSv	Microseiver

Whistleblower Protection
U.S. Department of Defense

The Whistleblower Protection Enhancement Act of 2012 requires the Inspector General to designate a Whistleblower Protection Ombudsman to educate agency employees about prohibitions on retaliation, and rights and remedies against retaliation for protected disclosures. The designated ombudsman is the DoD Hotline Director. For more information on your rights and remedies against retaliation, visit www.dodig.mil/programs/whistleblower.

For more information about DoD IG reports or activities, please contact us:

Congressional Liaison
congressional@dodig.mil; 703.604.8324

Media Contact
public.affairs@dodig.mil; 703.604.8324

Monthly Update
dodigconnect-request@listserve.com

Reports Mailing List
dodig_report@listserve.com

Twitter
twitter.com/DoD_IG

DoD Hotline
dodig.mil/hotline

DEPARTMENT OF DEFENSE | INSPECTOR GENERAL

4800 Mark Center Drive
Alexandria, VA 22350-1500
www.dodig.mil
Defense Hotline 1.800.424.9098