

NOAA: Repair Needs Data Not Accurate, and Real Property Utilization Not Monitored Adequately

FINAL REPORT NO. OIG-17-032-A

SEPTEMBER 27, 2017



U.S. Department of Commerce
Office of Inspector General
Office of Audit and Evaluation



September 27, 2017

MEMORANDUM FOR: Benjamin Friedman
Deputy Under Secretary for Operations Performing the Duties
of Under Secretary for Oceans and Atmosphere
and NOAA Administrator
National Oceanic and Atmospheric Administration

A handwritten signature in black ink, appearing to be "RB", written over a horizontal line.

FROM: Richard Bachman
Assistant Inspector General for Financial
and Intellectual Property Audits

SUBJECT: NOAA: *Repair Needs Data Not Accurate, and Real Property Utilization
Not Monitored Adequately*
Final Report No. OIG-17-032-A

Attached for your review is our final audit report on the effectiveness of NOAA real property management. Specifically, we assessed whether NOAA has an adequate understanding of its repair needs and is monitoring real property utilization. We found the following:

- NOAA does not have current, accurate, and complete repair needs data to effectively manage real property.
- NOAA does not adequately monitor office space utilization.

On August 17, 2017, OIG received the NOAA's response to the draft report's findings and recommendations, which we include within the report as appendix D. NOAA concurred with all recommendations and described both in-process and planned actions to address each recommendation.

Pursuant to Department Administrative Order 213-5, please submit to us an action plan that addresses the recommendations in this report within 60 calendar days. This final report will be posted on OIG's website pursuant to sections 4 and 8M of the Inspector General Act of 1978, as amended (5 U.S.C. App., §§ 4 & 8M).

We appreciate the cooperation and courtesies extended to us by your staff during our audit. Please direct any inquiries regarding this report to me at (202) 482-2877 or David Sheppard, Seattle Regional Inspector General for Audit, at (206) 220-7970 and refer to the report title in all correspondence.

Attachment

cc: Ellen Herbst, Office of the Secretary
Lisa Casias, Office of the Secretary
Edward Horton, Chief Administrative Officer, NOAA
Mack Cato, Director, Office of Audit and Information Management, NOAA
Francesca Ryan, Director, Real Property Management Division, NOAA



Report in Brief

September 27, 2017

Background

Management of federal real property has been an area of increased focus for the Office of Management and Budget (OMB) and the Government Accountability Office (GAO) in recent years. OMB memorandums have communicated challenges and required specific actions by all executive branch departments and agencies. GAO has placed federal real property management on its High Risk List since 2003 and has reported on federal real property issues numerous times since.

The Department of Commerce's official database for real property data is the Federal Real Property Management System (FRPM). The Department's Office of Real Property Programs annually inputs FRPM data directly into the Federal Real Property Profile (FRPP) maintained by GSA. Operating units are required to identify underutilized assets in the FRPM. The FRPP also requires the input of facility deficiency estimates under "Repair Needs."

The National Oceanic and Atmospheric Administration maintains custody of approximately 99 percent of real property owned or leased throughout the Department.

Why We Did This Review

The objective of this audit was to assess whether NOAA is effectively managing real property, specifically whether NOAA has an adequate understanding of its repair needs, and is monitoring real property utilization.

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

NOAA: Repair Needs Data Not Accurate, and Real Property Utilization Not Monitored Adequately

OIG-17-032-A

WHAT WE FOUND

NOAA does not have current, accurate, and complete repair needs data needed to effectively manage its portfolio of real property and is not monitoring utilization.

- *NOAA Does Not Have Current, Accurate, and Complete Repair Needs Data to Effectively Manage Real Property.* NOAA is required to verify and maintain the accuracy of its data reported in FRPM. We found that NOAA could not substantiate the amounts that were reported in FRPM for all 18 properties reviewed. This occurred because insufficient controls were in place to ensure that (a) the reviewed facilities were adequately documenting facility deficiencies, and (b) the amounts reported in FRPM were periodically updated as more accurate data became available.
- *NOAA Does Not Adequately Monitor Office Space Utilization.* The Department requires operating units to perform an analysis of their real property assets at least every 5 years. We found that no formal NOAA-wide analysis or monitoring of utilization occurred for existing facilities, and facility specific utilization goals were not created when the standard utilization rate was not reasonable. All NOAA line offices also indicated that they do not have a formal review process for assessing utilization of existing facilities, and that they perform an analysis only when acquiring new office or warehouse space or with a renovation of space within an existing facility. Due to the lack of monitoring, NOAA cannot determine whether all facilities are being used as efficiently as possible.

WHAT WE RECOMMEND

We recommend that NOAA's Chief Administrative Officer

1. implement a process to track and segregate repair needs and deferred maintenance (deficiency lists should be complete and prioritized, and include ongoing monitoring by facility management and the results of periodic facility condition assessments);
2. continue NOAA's process to ensure necessary real property assets have current facility condition assessments, and that the assessments are periodically updated or reassessed;
3. establish controls to verify the accuracy and completeness of existing data in FRPM and to update FRPM as necessary;
4. periodically monitor facility condition index levels for compliance with departmental goals and take corrective action when necessary; and
5. establish controls to periodically monitor the utilization of existing real property assets categorized as office space for progress toward the standard utilization rate, or facility specific goal when facilities are not able to achieve the standard utilization rate goal due to mission or facility constraints (controls should ensure compliance with the requirements of DAO 217-21).

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Cover: Herbert C. Hoover Building main entrance at 14th Street Northwest in Washington, DC. Completed in 1932, the building is named after the former Secretary of Commerce and 31st President of the United States.

Introduction

The National Oceanic and Atmospheric Administration (NOAA) maintains custody of approximately 99 percent of real property owned or leased throughout the Department of Commerce.¹ As of February 8, 2016, NOAA reported more than 3,338 property identification numbers (IDs) in its real property portfolio, 727 of which are owned by NOAA (see table 1). The remaining properties are leased directly by NOAA or leased through or from the General Services Administration (GSA).

Table 1. Summary of NOAA Properties as of February 2016

Office ^a	Buildings		Structures ^c		Land		Total	
	NOAA Owned	Leased ^b	GSA Owned	NOAA Owned	Leased ^b	NOAA Owned		Leased ^b
Corporate	7	5	2	2	–	1	2	19
NESDIS	21	7	2	5	2	17	124	178
NMFS	125	81	11	40	5	59	20	341
NOS	51	23	6	39	24	11	16	170
NWS	208	92	9	13	806	77	1,226	2,431
OMAO	9	11	-	6	10	2	2	40
OAR	26	10	1	2	12	6	102	159
TOTAL	447	229	31	107	859	173	1,492	3,338

Source: OIG, based on NOAA Federal Real Property Management System (FRPM) data

^a See appendix C for definitions of NOAA line offices.

^b Leased figures include properties leased directly by NOAA and leased by GSA for NOAA.

^c Structures include but are not limited to properties such as runways, docks, piers, pumping stations, dams, silos, storage tanks, radio towers, telephone cables, roads, bridges, underground fueling systems, and utility systems.

Management of federal real property has been an area of increased focus for the Office of Management and Budget (OMB) and the Government Accountability Office (GAO) in recent years. Several OMB memorandums have communicated challenges and required specific actions by all executive branch departments and agencies. In May 2012, OMB directed agencies not to increase the size of their civilian real estate inventory, unless any increase was offset through consolidation, co-location, or disposal of space from an agency's inventory.² In March 2015, OMB further clarified existing policies and required agencies to develop a real property efficiency plan, develop policies regarding office square footage, and develop reductions and disposal targets for office and warehouse space.³ OMB's *National Strategy for the Efficient Use of*

¹ According to 41 C.F.R. § 102–71.20, “Real property means: (1)[a]ny interest in land, together with the improvements, structures, and fixtures located thereon.”

² Office of Management and Budget, May 11, 2012. *Promoting Efficient Spending to Support Agency Operations*, M–12–12. Washington, DC: OMB.

³ OMB, March 25, 2015. *Implementation of OMB Memorandum M–12–12, Section 3: Reduce the Footprint*. Washington, DC: OMB.

Real Property (National Strategy) outlined three key steps to improve real property management: freeze growth in the inventory; measure performance and use data to identify opportunities to improve the efficiency of the real property portfolio; and reduce the size of the inventory by consolidating, collocating, and disposing of properties.⁴

GAO has placed federal real property management on its High Risk List since 2003 and has reported on federal real property issues numerous times since.⁵ In 2014, GAO reported problems with inconsistent data collection and reporting by five federal agencies and identified nine leading practices for managing maintenance and repair backlogs.⁶ In February 2015, GAO reported that “the federal government continues to face challenges with the accuracy and consistency of the Federal Real Property Profile (FRPP) data, causing the government to report inaccurate inventory and outcome information.”⁷ In June 2015, GAO reported that federal agencies continue to face challenges in managing federal real property.⁸ The report cited three primary challenges:

- maintaining more real property than needed,
- relying on leasing when ownership would be more cost efficient, and
- making real property management decisions using unreliable data.

In March 2016, GAO found FRPP data inaccuracies at five federal agencies, which limited the agencies’ ability to make informed decisions.⁹ The FRPP is the federal database of all real property under the custody and control of executive branch agencies.¹⁰

The Department of Commerce established its policy for space allocation on August 8, 2013, by issuing Department Administrative Order (DAO) 217–21, which is incorporated into the *Commerce Real Property Management Manual (RPMM)*.¹¹ The Department’s standard utilization

⁴ OMB, March 25, 2015. *National Strategy for the Efficient Use of Real Property, 2015–2020*. Washington, DC: OMB.

⁵ U.S. Government Accountability Office, *High Risk List*, www.gao.gov/highrisk/overview (accessed February 15, 2017). GAO’s High Risk List is released every 2 years at the start of a new congress. GAO calls attention to agencies and program areas considered high risk due to their vulnerabilities to fraud, waste, abuse, and mismanagement, or are most in need of transformation.

⁶ GAO, January 2014, *Federal Real Property, Improved Transparency Could Help Efforts to Manage Agencies’ Maintenance and Repair Backlogs*, GAO–14–188, Page 18. Washington, DC: GAO. GAO reviewed practices at GSA and the Departments of Energy, Homeland Security, the Interior, and Veteran’s Affairs.

⁷ GAO, February 2015. *High-Risk Series, An Update*, GAO–15–290. Washington, DC: GAO.

⁸ GAO, June 16, 2015. *Federal Real Property, Current Efforts, GAO Recommendations, and Proposed Legislation Could Address Challenges*, GAO–15–688T. Washington, DC: GAO, 5.

⁹ GAO, March 2016. *Federal Real Property, Improving Data Transparency and Expanding the National Strategy Could Help Address Long-standing Challenges*, GAO–16–275. Washington, DC: GAO, 3, 18, 27. GAO reviewed practices at GSA and the Departments of Veterans Affairs, Agriculture, the Interior, and Homeland Security.

¹⁰ U.S. General Services Administration, *FRPP Summary Reports*, www.gsa.gov/portal/category/21275 (accessed August 31, 2016).

¹¹ U.S. Department of Commerce, August 2014. *Real Property Management Manual (RPMM)*, Section 4.4.1. Washington, DC: DOC.

rate for office space is 170 usable square feet (USF) per person.¹² In developing this standard, the Department used the GSA standard of 135 square feet per person and added space to account for such areas as reception rooms, circulation space, storage, closets, conference rooms, break rooms, and other auxiliary areas.¹³ More broadly, Departmental policy also requires operating units to study and analyze, at least every 5 years, all owned or occupied real property assets, not just office space, to ensure they are used as efficiently and effectively as possible. Along with performing periodic analyses, operating units are required to identify underutilized assets in the Federal Real Property Management System (FRPM), the Department of Commerce's real property inventory system, which will be loaded into FRPP.¹⁴ Periodic space studies and identification of underutilized assets should help to attain, or measure progress toward, the 170 USF per person goal.

The Department's official database for real property data is the FRPM. NOAA's data within FRPM is managed by its Real Property Management Division (RPMD), which is responsible for real property acquisition and asset management programs NOAA-wide. Individual property IDs are assigned to buildings, land parcels, and other non-building structures. All operating units, including NOAA, are required to certify the accuracy of FRPM data annually. The Department's Office of Real Property Programs annually inputs FRPM data directly into the FRPP maintained by GSA. The Department is required to certify the accuracy of the data to GSA in a letter signed by the Chief Financial Officer, including the methodology used to evaluate the accuracy of the data.¹⁵

Deferred maintenance and repair needs are separate from capital projects, which include new construction, additions, modernizations, and major repairs and alterations.¹⁶ The FRPP requires the input of facility deficiency estimates¹⁷ under the data field "Repair Needs," which is defined as "the objective amount necessary to ensure that a constructed asset is restored to a condition substantially equivalent to the originally intended and designed capacity, efficiency, or capability."¹⁸ NOAA's *Manual for Budgeting, Accounting & Reporting (BAR) of Real Property* uses the term "deferred maintenance" to refer to "maintenance that was not performed when it should have been or was scheduled to be and, therefore, was deferred until a future period."¹⁹ Despite

¹² Federal Real Property Council, April 30, 2015. *2015 Guidance for Real Property Inventory Reporting*. Washington, DC: GSA. Page 15: The term "usable" square feet is "the portion of a building available for occupants." "The area excludes common areas such as bathrooms, stairways, elevator shafts, corridors, lobbies, equipment rooms, janitor rooms, pipe and vent shafts, exterior walls and telephone closets." This guidance is consistent with the Federal Real Property Council's subsequent *2016 Guidance for Real Property Inventory Reporting* (May 16, 2016).

¹³ DOC, August 8, 2013, *Space Allowance and Management Program*, DAO 217-21. Washington, DC: DOC.

¹⁴ DOC, *RPMM*, Section 3.1.3. Underutilized assets are defined as "an entire property or portion thereof, with or without improvements, which is used— (a) Irregularly or intermittently by the accountable Executive agency for current program purposes of that agency; or (b) For current program purposes that can be satisfied with only a portion of the property."

¹⁵ Federal Real Property Council, *2015 Guidance for Real Property Inventory Reporting*, Section A.

¹⁶ DOC, *RPMM*, Chapter 7, Paragraph 1.

¹⁷ Facility deficiency is a general term used to describe needed maintenance and/or repairs.

¹⁸ Federal Real Property Council, *2015 Guidance for Real Property Inventory Reporting*, 17.

¹⁹ National Oceanic and Atmospheric Administration, May 2015. *Manual for Budgeting, Accounting & Reporting (BAR) of Real Property*, Section 2. Silver Spring, MD: NOAA.

the separate definitions, NOAA uses estimated deferred maintenance to report repair needs to FRPP. GSA is currently revising the definition of repair needs, and other FRPP terms, to improve the consistency and quality of FRPP data.²⁰ When further FRPP guidance is issued, NOAA will need to revise its policies and procedures accordingly. According to FRPM data as of February 8, 2016, NOAA's 447 owned buildings have combined listed repair needs of nearly \$190 million (refer to table 2).²¹ Refer to figure 1 (page 5) for a map with the location of NOAA owned and leased buildings within the United States.

The Department has set an acceptable building conditions goal, as calculated by the facility condition index (CI), of 90 percent for mission critical facilities and 80 percent for mission dependent facilities.²² This index measures the ratio of the repair needs to the estimated replacement value. Replacement value is the estimated cost to replace an asset with a newly constructed asset with the same size and location at current building standards and codes.²³

Table 2. Repair Needs and Replacement Values for NOAA Owned Buildings^a

Office ^b	Repair Needs	Replacement Value
Corporate	\$31,718,690	\$63,813,331
NESDIS	16,716,931	43,664,019
NMFS	68,784,866	450,057,026
NOS	8,242,745	109,530,172
NWS	40,637,135	252,978,663
OMAO	4,806,182	13,033,234
OAR	19,036,378	57,976,345
Total	\$189,942,927	\$991,052,790

Source: OIG, based on NOAA FRPM data

^a As noted in finding 1, FRPM data has not been routinely updated since 2011, therefore this data is considered outdated and unreliable. We report this data for informational purposes only.

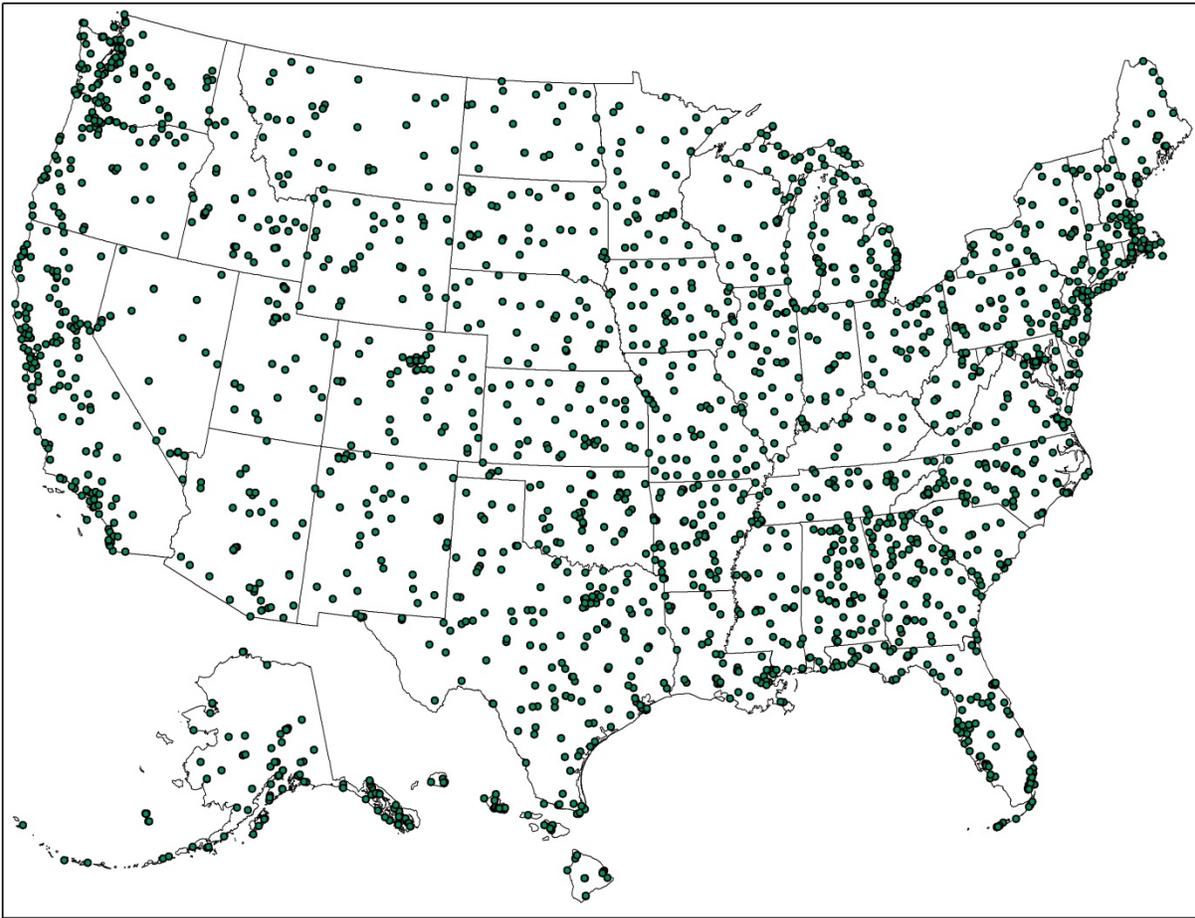
^b Refer to appendix C for full office names

²⁰ GSA, December 1, 2016. *Improving the Consistency and Quality of Federal Real Property Profile (FRPP) Data to Support Efficient Resource Allocation*, Washington, DC: GSA.

²¹ FRPM data has not been updated consistently since 2011 and therefore cannot be supported. Refer to finding 1 for further details.

²² DOC, *RPMM*, Section 4.4.3. The CI is reported on a scale of zero to one hundred percent. The higher the Index the better condition of the asset is. This ration can be calculated as "1-(Repair Needs/Replacement Value)."

²³ Federal Real Property Council, *2015 Guidance for Real Property Inventory Reporting*, 17.

Figure I. Location of NOAA Buildings

Source: OIG, based on NOAA data

Note: Map includes the location of NOAA owned and leased buildings within the United States, but excludes buildings in U.S. territories (American Samoa, Federated States of Micronesia, Guam, Marshall Islands, Northern Mariana Islands, Palau Islands, and Puerto Rico).

Findings and Recommendations

The objective of this audit was to assess whether NOAA is effectively managing real property, specifically whether NOAA has an adequate understanding of its repair needs, and is monitoring real property utilization. See appendix A for further details on the objective, scope, and methodology of the audit. Based on our audit, NOAA does not have current, accurate, and complete repair needs data needed to effectively manage its portfolio of real property and is not monitoring utilization.

I. NOAA Does Not Have Current, Accurate, and Complete Repair Needs Data to Effectively Manage Real Property

According to the Department's *RPMM*, inspections of NOAA-owned properties are required for annual financial statements reporting and as a process for identifying and developing amounts for needed repairs and alterations to real property. Based on these inspections, operating units must maintain prioritized lists of facility deficiencies and track changes in the level of deficiencies over time.²⁴ NOAA submits these amounts, along with other real property portfolio information, to the Department for inclusion in the Department's annual real property portfolio reporting, which is reported to GSA's FRPP through FRPM. NOAA is required to verify and maintain the accuracy of its data reported in FRPM,²⁵ including an annual certification of the accuracy to the Department.

To assess the accuracy of NOAA submitted data, we judgmentally selected 18 properties that NOAA reported to determine whether the reported repair needs and replacement values were supported. Our sample included 17 properties from the NOAA line offices and the Western Regional Center (WRC) complex from NOAA Corporate, and our selection criteria were NOAA owned properties with significant repair needs balances in FRPM.

Of the 18 properties reviewed, we found that NOAA could not substantiate the amounts that were reported in FRPM for all of the 18 properties. As NOAA uses estimated deferred maintenance to report repair needs, we requested deferred maintenance lists from the selected properties. Specifically, we found the following:

- Ten properties were able to provide support for lists of deferred maintenance, but the lists were not used to update FRPM reported amounts. Two of these facilities originally provided deferred maintenance lists that included items that were not deferred maintenance or a repair need, but subsequently provided the results of facility condition assessments (FCAs).²⁶ Another facility was not tracking deferred maintenance at the time of audit but received the results of an FCA during the audit.

²⁴ DOC, *RPMM*, Section 7.3.4.

²⁵ DOC, *RPMM*, Section 2.4.2. "All OUs are required to . . . [v]erify and maintain the accuracy of OU information entered into the FRPM database."

²⁶ DOC, *RPMM*, Section 10.6. "In order to ensure a well-maintained facility, a best practice in facilities management is to establish a maintenance program or system that enables the identification, costing, prioritizing, and scheduling

- Six properties were not able to provide any documentation, such as deferred maintenance lists or completed FCAs, to demonstrate facility management had an understanding of facility deficiencies.
- Two additional properties provided documentation that did not specifically identify the deferred maintenance for the properties.

For the 10 properties able to provide support for lists of building deficiencies, facility management based those lists on recent FCAs, informal estimates, or other non-FCA studies. However, in each case, NOAA did not update FRPM values with the updated information from any of these properties. The updated information was only maintained at the facility or line office.

This resulted in significant differences between the reported amounts and the supporting documentation. For the 10 properties we compared the supported estimates to balances in FRPM and found that estimated replacement values in FRPM were under-reported by \$26,020,881 (a variance of 72 percent) and repair needs in FRPM were over-reported by \$7,837,029 (a variance of 81 percent). A summary of our comparison for the 10 properties is shown in table 3 (see next page; see appendix B for a summary of testing results for all 18 properties). The remaining eight properties were excluded from the comparison as they did not have supported estimates to compare to FRPM balances.

of maintenance activities and contracts. Periodic facility condition assessments are, in part, a tool to validate the performance of a maintenance management system.”

Table 3. Comparison of FRPM Data to Facility Provided Data^a

Property ID	Estimated Replacement Value			Repair Needs		
	Per FRPM	Per Facility ^b	Difference	Per FRPM	Per Facility	Difference
HIM01903	\$483,005	\$764,458	\$(281,453)	\$237,596	\$59,150 ^e	\$178,446
FLM07402	12,785,318	23,004,587	(10,219,269)	4,004,739	660,568 ^c	3,344,171
NYE06302	2,704,319	4,612,823	(1,908,504)	942,262	718,937 ^c	223,325
FLC08702	7,143,844	20,755,499	(13,611,655)	510,186	1,594,544 ^c	(1,084,358)
AKM12701				311,171	779,683 ^f	(468,512)
SCE02001				869,304	1,568,000 ^d	(698,696)
I4001071				137,650	165,860 ^g	(28,210)
MSM001				1,050,247	50,000 ^d	1,000,247
RIE002				2,420,633	140,000 ^d	2,280,633
MAE010				3,137,883	56,900 ^d	3,080,983
Total	\$23,116,486	\$49,137,367	\$(26,020,881)	\$13,621,671	\$5,793,642	\$7,828,029

Source: OIG, based on NOAA data

^a Comparisons were only performed for facilities able to provide support for estimated replacement values and deferred maintenance.

^b Estimated replacement values for facilities were obtained from recently completed FCAs.

^c Deferred maintenance amounts based on recently completed FCAs.

^d Amounts based on maintained lists of deferred maintenance.

^e The deferred maintenance estimate provided during the audit was not deferred maintenance in nature. A draft FCA was subsequently completed in June, 2016. We use the FCA estimate for this comparison.

^f The deferred maintenance estimate provided during the audit was not deferred maintenance in nature despite the facility having the results of a recently completed FCA. We use the FCA estimate for this comparison.

^g The facility did not have a deferred maintenance list during the audit. An FCA was subsequently completed in June 2016. We use the FCA estimate for this comparison.

The issues identified above occurred because insufficient controls were in place to ensure that (a) the reviewed facilities were adequately documenting facility deficiencies, and (b) the amounts reported in FRPM were periodically updated as more accurate data became available. Current FRPM data were derived from NOAA's former Integrated Facility Inspection Program (IFIP), which was last updated in 2011. As NOAA has not updated this information since 2011, we consider the amounts reported in FRPM to be outdated and potentially inaccurate. After NOAA discontinued the IFIP, it was not replaced with another systematic process to ensure all properties were periodically assessed and FRPM amounts updated. NOAA has resumed obtaining FCAs and most line offices have plans to complete FCAs for all owned properties by 2019.

Additionally, four facilities originally provided documentation with building deficiencies that were not distinguished from other project types, such as capital improvements, modernization projects, and complete building replacements. While planned or needed capital improvements, life-cycle expenses, and upgrades should also be tracked, that information should be categorized separately from deferred maintenance and repair needs.

Two of these facilities were subsequently able to provide FCAs during the course of the audit.

For example, one facility estimated the deferred maintenance of \$900,000, while its balance in FRPM was \$237,596. We determined that the \$900,000 was the estimated cost of a solar photovoltaic system to fully power the facility, which is a capital improvement, and not an expense to ensure the property is restored to a condition substantially equivalent to the originally intended and designed capacity, efficiency, or capability. A draft FCA was subsequently completed in June 2016 that estimated deferred maintenance at \$59,150.

As another example, a facility complex²⁷ provided a recently completed FCA as its list of deferred maintenance. However, the FCA did not distinguish between deferred maintenance, modernization, and capital improvement projects, nor were the projects incorporated into a prioritized deferred maintenance list. FRPM reports the deferred maintenance for the complex as \$63,466,282. The FCA identified \$1,592,200 in actionable projects (repair/replace within 90 days or immediately), \$2,820,000 in short-term projects (repair/replace within 2 years), \$24,247,300 in capital expenditures (repair/replace within 5 years) and \$233,703,200 in recapitalization/modernization projects. As facility management did not determine which of the projects identified in the FCA should be considered deferred maintenance, it is not currently possible to conclude on the accuracy of the reported FRPM balance.

Ongoing monitoring of facility deficiencies and inclusion of the results of FCAs is a best practice for ensuring an adequate maintenance management program.²⁸ Federal agencies should use quality information to achieve objectives and that information should be relevant and reliable.²⁹ If repair needs estimates are not up to date or accurate, then the data is not relevant or reliable. Lack of a proper understanding of future maintenance needs could result in an inefficient use of funds and growth in the amount of deferred maintenance. Therefore, the Department, GSA, and other interested parties may not have accurate data for government-wide statistics and analysis, negatively affecting the ability of NOAA and other stakeholders to make informed decisions based on accurate data. Without periodic adjustments to the estimates, the FCIs are unreliable and any analysis using them could be flawed.

Department officials stated they are currently in the process of acquiring a computerized information system that may resolve issues related to categorizing and managing deferred maintenance and other facility issues. This system could include standardization of condition ratings and metrics, risk-informed work prioritization, long-term infrastructure budget

²⁷ NOAA's Western Regional Center (WRC) consists of 13 property IDs in FRPM, 9 of which are buildings. For the purposes of this audit, we collectively reviewed 7 of the 9 buildings as one facility.

²⁸ DOC, *RPMM*, Section 10.6. "In order to ensure a well-maintained facility, a best practice in facilities management is to establish a maintenance management program or system that enables the identification, costing, prioritizing, and scheduling of maintenance activities and contracts. Periodic facility condition assessments are, in part, a tool to validate the performance of a maintenance management system."

²⁹ GAO, September 2014. *Standards for Internal Control in the Federal Government*, GAO-14-704G, Principle 13. Washington, DC: GAO.

projections, and improved consistency in reporting. NOAA management informed us this system may be implemented within the next 18 months.

II. NOAA Does Not Adequately Monitor Office Space Utilization

In an effort to ensure space is being utilized as efficiently and effectively as possible, the Department requires operating units to perform an analysis of real property assets they control or occupy at least every 5 years.³⁰ The management factors in this analysis could include qualitative and quantitative considerations. For office space in leased and owned facilities, the Department also established a Departmental standard utilization rate of 170 USF per person.³¹ While NOAA holds line offices responsible for operating and monitoring the use of properties, including utilization, the Department ultimately requires NOAA to develop implementing procedures and internal controls for the efficient and effective use of space, a general NOAA standard utilization rate, and building specific rates when the mission or other facility-specific constraints make the standard rate unreasonable.³²

We found that no formal NOAA-wide analysis or monitoring of utilization occurred for existing facilities, and facility specific utilization goals were not created when the standard utilization rate was not reasonable. We reviewed eight judgmentally selected facilities categorized as office space, seven from the NOAA line offices and the WRC from NOAA corporate, and found that seven were not performing any formal monitoring or analysis of utilization that included the USF occupied per person and had no documentation of any such analysis occurring within the previous five years. One facility we reviewed had policies in place to address space needs and performed space usage reviews. However, its monitoring did not include reviewing progress toward the 170 USF per person goal or other facility specific goal. Furthermore, another facility had a renovation of space completed in January 2016 and no analysis of USF per person or its impact on the 170 USF per person goal was performed as required.³³

We observed that at least five of the eight properties we reviewed appeared to include different types of space in addition to office space that could skew the calculated USF for the facility. Many facilities have different types of space including office, laboratory,

³⁰ DOC, *RPMM*, Section 3.1.3. "Some of the asset management factors to consider include the following: a. The asset is fully utilized; b. The asset matches best with the OU's mission (e.g. office space is not being used mostly for storage and/or warehousing); c. The asset's location best matches the OU's mission; d. The asset is being put to its highest and best use. This factor may take into consideration the OU's mission and changes in the community since the asset was obtained; e. The asset's operating and rental costs are not excessive; and f. The asset is not considered worthless due to accumulated repair and alterations needs."

³¹ DOC, *RPMM*, Section 5.2.3.3.

³² DOC, DAO 217-21, Section 3.03. "To implement this policy and standard utilization rate, all OUs are required to develop implementing procedures, internal controls, an OU general standard utilization rate, building specific standard rate when mission/facility constraints preclude application of the OU standard rate, and a governance structure."

³³ DOC, DAO 217-21, Section 3.05. Operating units implementing procedures will, at a minimum, address application of the appropriate OU Standard to: a. space being renovated or reconfigured; b. succeeding leases; c. consolidation; or d. space reduction.

warehouse, and special use. However, properties are categorized based only on their predominant usage.³⁴ None of the facilities reviewed, however, identified a facility specific utilization goal in lieu of the standard goal. If facilities are not able to achieve the USF goal based on specifics of the facility, NOAA should be able to determine a reasonable USF goal per facility and measure progress toward that goal.³⁵

All NOAA line offices also indicated that they do not have a formal review process for assessing utilization of existing facilities, and that they perform an analysis only when acquiring new office or warehouse space or with a renovation of space within an existing facility. Due to the lack of monitoring, NOAA cannot determine whether all facilities are being used as efficiently as possible and cannot track progress toward achieving the goal of 170 USF per person.

Recommendations

We recommend that NOAA's Chief Administrative Officer

1. implement a process to track and segregate repair needs and deferred maintenance (deficiency lists should be complete and prioritized, and include ongoing monitoring by facility management and the results of periodic facility condition assessments);
2. continue NOAA's process to ensure necessary real property assets have current FCAs, and that the assessments are periodically updated or reassessed;
3. establish controls to verify the accuracy and completeness of existing data in FRPM and to update FRPM as necessary;
4. periodically monitor CI levels for compliance with departmental goals and take corrective action when necessary; and
5. establish controls to periodically monitor the utilization of existing real property assets categorized as office space for progress toward the standard utilization rate, or facility specific goal when facilities are not able to achieve the standard utilization rate goal due to mission or facility constraints (controls should ensure compliance with the requirements of DAO 217-21).

³⁴ Federal Real Property Council, *2015 Guidance for Real Property Inventory Reporting*, 8. "Predominant use means the greatest use of the real property asset (land, building, or structure). For example, buildings used primarily for office are classified as "office," even though certain portions of them may be used for storage or research."

³⁵ DOC, DAO 217-21, Section 3.06. "In existing office facilities, or 'as-is' space acquisitions, the OU Standard is expected to make a best effort to achieve the 170 USF per person standard utilization rate as established by this policy."

Summary of Agency Response and OIG Comments

In response to our draft report, NOAA concurred with all recommendations and described both in-process and planned actions to address each recommendation. We have included NOAA's formal response as appendix D of this report.

Appendix A: Objective, Scope, and Methodology

Our objective was to determine whether NOAA is effectively managing its portfolio of real property. Specifically, we assessed whether NOAA has an adequate understanding of its repair needs and is monitoring real property utilization.

We performed the following procedures to accomplish our audit objectives:

- reviewed relevant laws and regulations, including: OMB Management Memo No. 2015–01, DOC *RPMM*, DOC DAO 217–21, *2015 GAO Green Book*, and Statement of Federal Financial Accounting Standards 42: Deferred Maintenance and Repairs;
- obtained an understanding of internal controls related to deferred maintenance and utilization through interviews with NOAA personnel in RPMD, line offices, and facility management;
- obtained an understanding of GSA property management practices through an interview with GSA personnel;
- compared FRPM data to deferred maintenance and utilization data obtained from line offices and supporting documentation;
- judgmentally selected a sample of 18 facilities to review repair needs: three facilities each from five line offices (NMFS, NOS, NWS, OMAO, and OAR), two facilities from NESDIS, and WRC, a property complex managed by NOAA Corporate (Office of the Chief Administrative Officer). Properties were selected based on OIG-identified risk factors including high amounts of reported repair needs in FRPM. Because NOAA has more control and financial responsibility over owned properties than leased, testing was focused on NOAA owned buildings;
- for selected properties, requested documentation supporting deferred maintenance, facility condition assessments, maintenance expenses, and building replacement value;
- judgmentally selected a sample of eight facilities from NOAA line offices and NOAA Corporate to review for utilization based on high reported square feet per person in FRPM;
- for selected properties, requested documentation supporting monitoring of facility utilization; and
- conducted site visits to observe a selection of properties.

During our audit, we reviewed NOAA’s compliance with laws and regulations relevant to our audit objectives. While we identified and reported on internal control deficiencies, no specific instances of fraud, illegal acts, violations of laws, or abuse were identified in our audit. Our assessment of data reliability as well as our findings and conclusions are based on interviews with NOAA personnel and review of supporting documentation such as deferred maintenance lists and facility condition assessments. FRPM data was primarily used for background and to

select properties for review, but only to confirm internal controls as described by NOAA personnel. Supporting documentation was requested for relevant data fields in FRPM to confirm they were outdated and therefore not reliable. The reliability of FRPM data is explained in the report when used. Refer to finding I for further detail on the data issues found in FRPM.

Our audit was not a statistical sample of all properties in all NOAA line offices. Therefore, the results should not be used as conclusive evidence of the controls in place for all properties not included in our audit.

We conducted our audit from November 2015 through June 2016, and performed fieldwork at NOAA offices in Miami; Seattle; Fairbanks, Alaska; Beaufort, North Carolina; Pascagoula, Mississippi; Mobile, Alabama; and the OIG office in Seattle. The scope of our audit primarily included fiscal years 2013 to 2015, but we requested information outside the scope when necessary. The audit was conducted under the authority of the Inspector General Act of 1978, as amended (5 U.S.C. App.), and Department Organizational Order 10–13, dated April 26, 2013. We conducted this audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence that provides a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objective.

Appendix B: Summary of Deferred Maintenance for Tested Properties

Property ID	From FRPM		Total Deferred Maintenance per Facility Provided During Audit	Notes
	Replacement Value ^a	Repair Backlog		
Properties unable to provide a deferred maintenance list				
VAE02102	\$7,488,825	\$2,619,918	\$2,619,918	Facility did not track or maintain a prioritized listing of deferred maintenance. Amount reported originated from the IFIP in 2011 and is therefore considered outdated and unsupported.
VAE02118	3,013,945	1,284,755	1,284,755	Facility did not track or maintain a prioritized listing of deferred maintenance. Amount reported originated from the IFIP in 2011 and is therefore considered outdated and unsupported.
I4000656	954,287	270,595	270,595	Facility did not track or maintain a prioritized listing of deferred maintenance. Amount reported originated from the IFIP in 2011 and is therefore considered outdated and unsupported.
AKW15408	11,409,441	6,784,950	6,784,950	Facility did not track or maintain a prioritized listing of deferred maintenance. Amount reported originated from the IFIP in 2011 and is therefore considered outdated and unsupported.
AKW15426	5,719,326	4,025,715	4,025,715	Facility did not track or maintain a prioritized listing of deferred maintenance. Amount reported originated from the IFIP in 2011 and is therefore considered outdated and unsupported.
PAE01303	2,400,499	1,837,376	1,837,376	Facility did not have a prioritized listing of deferred maintenance, but was waiting for the results of an FCA as the basis for one.
Properties that provided documentation that did not specifically identify the deferred maintenance				
NCC00102	8,858,637	1,892,937	17,792,220	Deferred maintenance amount was based on a 2009 master plan and included renovations, mold remediation, floor raising and finishing, and building insulation.

Property ID	From FRPM		Total Deferred Maintenance per Facility Provided During Audit	Notes
	Replacement Value ^a	Repair Backlog		
WRC	134,994,606	63,466,282	Repair/replace within 90 days = 1,592,200 Repair/replace within 2 years = 2,820,000 Repair/replace within 5 years = 24,247,300	Amounts were provided in an FCA completed September 2015 and were not separated into deferred maintenance versus lifecycle costs. Projects identified in the FCA were classified as actionable (repair/replace within 90 days or immediately), short-term (repair/replace within 2 years), capital expenditure—type A (repair/replace within 5 years), and recapitalization/modernization. Recapitalization/modernization projects totaled \$233,703,200.
Facilities able to provide support for deferred maintenance lists				
FLM07402	12,785,318	4,004,739	145,000	Deferred maintenance list provided by the facility during audit was based on deficiencies tracked by facility management. A draft FCA was subsequently completed in April 2016 that estimated deferred maintenance of at least \$660,568 and a replacement value of \$23,004,587.
NYE06302	2,704,319	942,262	718,937	Deferred maintenance list was based on an FCA completed May 2015, which included an estimated replacement value of \$4,612,823.
FLC08702	7,143,844	510,186	1,594,544	Deferred maintenance list was based on an FCA completed June 2015, which included an estimated replacement value of \$20,755,499.
SCE02001	16,864,492	869,304	1,568,000	Deferred maintenance list was based on informal estimates maintained by facility staff.
MSM001	11,005,072	1,050,247	50,000	NMFS tracks deferred maintenance by complex, not by individual property. Information presented is totals by complex.
RIE002	10,933,242	2,420,633	140,000	NMFS tracks deferred maintenance by complex, not by individual property. Information presented is totals by complex.
MAE010	30,208,499	3,137,883	56,900	NMFS tracks deferred maintenance by complex, not by individual property. Information presented is totals by complex.
HIM01903	483,005	237,596	900,000	The only project included was a solar photovoltaic system to fully power the facility and, therefore, appears more appropriately classified as a capital improvement. A draft FCA subsequently completed in June 2016 estimated deferred maintenance at \$59,150 and a replacement value of \$764,458.

Property ID	From FRPM		Total Deferred Maintenance per Facility Provided During Audit	Notes
	Replacement Value ^a	Repair Backlog		
AKM12701	598,111	311,171	4,200,000	Total provided by the facility was the cost estimate for a replacement facility. An FCA completed in April 2015 estimated cost for repairs for the existing facility at approximately \$779,683.
I4001071	2,605,487	137,650	137,650	Facility did not have a prioritized listing of deferred maintenance at the time of our original request, but was in process of obtaining an FCA. The FCA was subsequently completed in June 2016 and reported \$165,860 in deferred maintenance.

Source: OIG, based on NOAA documentation

^a Replacement values have not been updated since 2011 and are considered outdated and unsupported. Values are provided only to provide context to deferred maintenance amounts.

Appendix C: List of Acronyms

DAO	Department Administrative Order
DOC	Department of Commerce
FRPM	Federal Real Property Management System
FRPP	Federal Real Property Profile
FCA	Facilities conditions assessment
FCI	Facility condition index
GAO	Government Accountability Office
GSA	General Services Administration
IDs	Property identification numbers
IFIP	Integrated Facilities Inspection Program
NESDIS	National Environmental Satellite, Data, and Information Service
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NOS	National Ocean Service
NWS	National Weather Service
OAR	Office of Oceanic and Atmospheric Research
OMAO	Office of Marine and Aviation Operations
OMB	Office of Management and Budget
RPMD	Real Property Management Division
RPMM	Real Property Management Manual
USF	Usable square feet
WRC	Western Regional Center

Appendix D: Agency Response



UNITED STATES DEPARTMENT OF COMMERCE
The Deputy Under Secretary for Operations
Washington, D.C. 20230

AUG 17 2017

MEMORANDUM FOR: Richard L. Bachman
Assistant Inspector General for Financial
and Intellectual Property Audits

FROM: Benjamin Friedman 
Deputy Under Secretary for Operations, Performing the Duties
of Under Secretary for Oceans and Atmosphere
and NOAA Administrator

SUBJECT: *NOAA's Repair Needs Data Is Not Accurate and Does Not
Adequately Monitor Real Property Utilization*
Draft Report, July 21, 2017

Thank you for the opportunity to comment on the Office of Inspector General's draft report on the effectiveness of NOAA real property management. We concur with the recommendations, and our attached response describes actions to address each recommendation.

If you have questions, please contact Mack A. Cato, Director, Audit and Information Management Office on (301) 628-0949.

Attachment



**Department of Commerce
National Oceanic and Atmospheric Administration's Comments to:
OIG Draft Report entitled, NOAA's Repair Needs Data is Not Accurate and Does Not
Adequately Monitor Real Property Utilization"
(August 2017)**

General Comments

The Department of Commerce's National Oceanic and Atmospheric Administration (NOAA) appreciates the opportunity to review the Office of Inspector General (OIG), Office of Audit and Evaluation's draft report, entitled "NOAA's Repair Needs Data is Not Accurate and Does Not Adequately Monitor Real Property Utilization." The OIG draft report provides an objective and detailed assessment of the challenges NOAA has faced tracking repair needs and monitoring office space utilization. NOAA agrees with the five recommendations. Implementation of the recommendations will be addressed in the corrective action plan.

NOAA continues its effort to improve the management and oversight of its real property inventory. Much of NOAA's owned inventory is comprised of legacy buildings that were originally used by other Federal agencies. Often the unique attributes of the buildings and sites contribute to supporting NOAA's scientific mission. In 2016, NOAA established the Senior Facilities Council to address cross-cutting real property issues, particularly long-range strategic planning for right-sizing the aging portfolio and necessary capital investments. The Council has led NOAA in completing over 95 Facility Condition Assessments for both owned sites, as well as many older leased sites, which identify deferred maintenance needs and other deficiencies.

NOAA views site relocations as opportunities to down-size and reconfigure space in order to more efficiently and effectively satisfy mission needs. One prominent example is the relocation of the National Logistics and Reconditioning Center, which resulted in the reduction of its space requirement by over ten percent or over 26,000 square feet.

In terms of managing the last piece of the real property life-cycle, NOAA has focused on disposing of its excess real property, whether through demolition or through GSA's disposition process. Near term, GSA anticipates completing the disposition of NOAA's Auke Bay Laboratory in Alaska by the end of 2017, which will reduce NOAA's inventory by over 41,000 square feet and 12 acres of land. Another large disposition project for NOAA is the old Pacific Tsunami Warning Center at Eva Beach, Hawaii, which GSA will soon have under way. This site will reduce NOAA's inventory by over 14,000 square feet.

Recommended Changes for Factual/Technical Information

NOAA does not have any suggested changes to factual or technical information.

Editorial Comments

NOAA does not have any editorial comments.

NOAA Response to OIG Recommendations

The Office of Inspector General made the following five recommendations to NOAA:

“We recommend that NOAA’s Chief Administrative Officer . . .”

Recommendation 1: “implement a process to track and segregate repair needs and deferred maintenance (deficiency lists should be complete and prioritized, and include ongoing monitoring by facility management and the results of periodic facility condition assessments).”

NOAA’s Response: We concur. Implementation of this recommendation is already under way. NOAA is acquiring *Builder*, the U.S. Army Corps of Engineers’ information management system for recording and reporting deferred maintenance items.

Recommendation 2: “continue NOAA’s process to ensure necessary real property assets have current Facility Condition Assessment (FCA), and that the assessments are periodically updated or reassessed.”

NOAA’s Response: We concur. NOAA has already completed over 95 Facility Condition Assessments on owned sites. By 2020 NOAA expects to have the remaining Facility Condition Assessments completed or underway. Reassessments would follow once the baseline assessments are completed.

Recommendation 3: “establish controls to verify the accuracy and completeness of existing data in FRPM and to update FRPM as necessary.”

NOAA’s Response: We concur. Implementation of this recommendation is already under way. NOAA is partnering with the U.S. Army Corps of Engineers to collect or verify data for the owned buildings.

Recommendation 4: “periodically monitor CI levels for compliance with departmental goals and take corrective action when necessary, and . . .”

NOAA’s Response: We concur. Condition Index levels will be monitored and considered when making capital investment decisions.

Recommendation 5: “establish controls to periodically monitor the utilization of existing real property assets categorized as office space for progress toward the standard utilization rate, or facility specific goal when facilities are not able to achieve the standard utilization rate goal due to mission or facility constraints (controls should ensure compliance with the requirements of DAO 217-21).

NOAA’s Response: We concur. NOAA is partnering with the U.S. Army Corps of Engineers to collect and establish baseline data that will allow NOAA to perform utilization analyses that are consistent and reliable. The data will recognize the disparity in space functions allowing NOAA to better assess the utilization of administrative and various non-administrative space categories.

I120000233