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ANALYSIS OF FACILITY REAL PROPERTY DATA FOR NAVAL SUPPORT ACTIVITY MONTEREY

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The Department of Defense (DoD) is responsible for over 70% of all federal government-reported assets. As of fiscal year 2017—as reported by the Government Accountability Office in a document titled *The Navy Needs to Improve Internal Control over its Buildings*—the DoD reported on its financial statements over 562,000 facilities and 24.9 million acres around the world, with a plant replacement value (PRV) of $880 billion. The DoD cannot demonstrate that the information is accurate and reliable. It is unable to assert the existence and completeness of its real property records. The Navy Facility Assets Data Store (iNFADS) houses Navy property records, including documents on land, buildings and structures, and utilities. Naval Facilities Engineering Command maintains iNFADS, and the data feeds the Facility Sustainment Model (FSM), which is used to estimate and forecast the annual facilities sustainment requirement for maintenance and repairs of buildings and structures for the DoD. This research study addressed the completeness and existence of facility real property records for Naval Support Activity Monterey, identified 18 facility real property record discrepancies, and discussed the impact on the FSM allocation for the installation. Once corrected, the discrepancies will add $14,458.75 (.1149%) to the NSA Monterey forecast. Based on the analysis, recommendations were made.

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ANALYSIS OF FACILITY REAL PROPERTY DATA FOR NAVAL SUPPORT ACTIVITY MONTEREY

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ABSTRACT

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LIST OF ACRONYMS AND ABBREVIATIONS

ASD(EI&E)	Office of the Assistant Secretary of Defense for Energy, Installations, and Environment
CAP	Correction Action Plan
CFO Act	Chief Financial Officer Act
CNIC	Commander, Navy Installations Command
DoD	Department of Defense
DoN	Department of the Navy
FAC	Facility Analysis Category
FIAR	Financial Improvement and Audit Readiness
FIM	Facilities Investment and Management
FNMOC	Fleet Numerical Meteorology Office Command
FSM	Facility Sustainment Model
GAO	Government Accountability Office
iNFADS	internet Navy Facility Assets Data Store
NAVFAC	Naval Facilities Engineering Command
NDAA	National Defense Authorization Act
NPS	Naval Postgraduate School
NRL	Naval Research Laboratory
NSA	Naval Support Activity
O&M	Operations and Maintenance
OSD	Office of the Secretary of Defense
OUSD(C)	Office of the Under Secretary of Defense (Comptroller)/Chief Financial Officer
PRV	Plant Replacement Value
RPAD	Real Property Asset Database
RPAO	Real Property Accountability Officer
RPI	Real Property Inventory
SF	Square Feet
SFFAS	Statement of Federal Financial Accounting Standards
UIC	Unit Identification Code
USC	Unites States Code
USD(AT&L)	Under Secretary of Defense for Acquisition, Technology, and Logistics

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I. INTRODUCTION

In this chapter, the background, the research purpose, and the research questions are presented. The benefits and importance of this research are also discussed. Finally, the methodology is briefly outlined, and the scope and organization of the research are presented.

A. BACKGROUND

Businesses have internal controls as the method to enforce financial transparency of their operations and maintain accountability of short-term and long-term assets and liabilities in their portfolio (Whittington & Pany, 2014). The Committee of Sponsoring Organizations of the Treadway Commission (COSO) delineates the composition of the internal controls framework to address, with reasonable assurance, whether the objectives of reporting and compliance are complete for information users to demonstrate the inflow and outflow of resources from the company (Whittington & Pany, 2014). Private and publicly-traded companies can be negatively impacted by inaccurate financial reports impacting the profitability of the company and its ability to attract investors. Quality data to create financial reports is essential to the success of any company (Whittington & Pany, 2014).

The United States government (U.S. government) creates financial statements to accurately report assets, liabilities, and profits to its shareholders, which, in the U.S. government's case, are the taxpayers (Government Accountability Office [GAO], 2017a). The federal government needs to demonstrate its fiscal policy and internal controls to account for all assets, liabilities, and expenditures (GAO, 2017a). The Department of Defense (DoD), which is part of the federal government, needs to provide accurate and reliable financial data to account for all assets, liabilities, and expenditures (GAO, 2017a). One area of focus to determine the quality of financial data is the facility real property records as a means to account for long-term assets under the DoD consolidated balance sheet (GAO, 2017a)

The GAO continues to assess the DoD's financial management as high-risk due to internal control deficiencies first reported in 1995 (GAO, 2016a). DoD's inadequate internal controls negatively impact its ability to plan and prioritize funding to maximize operational readiness (GAO, 2016a). All governmental entities, including the DoD, need to plan and program their budgets based upon current and future demands. The objective of each agency is a balanced budget aimed at informed decisions from management to counter the possible threat to current and long-term readiness goals.

The DoD is responsible for over 70% of all federal government reported assets, which include real property, plant, and equipment (GAO, 2018b). As of fiscal year (FY) 2017, the DoD reported on its financial statements over 562,000 facilities and 24.9 million acres around the world, with a plant replacement value (PRV) of $880 billion. The DoD cannot accurately demonstrate that its assets are recorded or that the information is accurate and reliable (GAO, 2018b). It is one of the few remaining federal entities unable to assert the existence and completeness of its real property records (GAO, 2018b).

In 1990, Congress passed the Chief Financial Officer Act (CFO Act), which requires the 24 largest federal agencies to complete independent annual financial statement audits. Since then, the DoD and the Department of the Navy (DoN) have been under constant scrutiny to conform with the CFO Act and the Federal Accounting Standards Advisory Board (FASAB), with the goal of achieving financial transparency.

Prior independent audits and the GAO have stated concern over the data reliability of real property records composed of plant, property, and equipment (GAO, 2018b). The DoN cannot receive an auditor's opinion due to the lack of accurate and reliable data of real property assets (GAO, 2018b). GAO (2018b) found that neither the DoN nor the DoD are keeping appropriate records to account for Class II facility real property. Class II real property encompasses improvements in support of a structure or facility at a distance of five feet from the foundation (Naval Facilities Engineering Command [NAVFAC], 2008). Accurate facility Class II real property records require compliance with FASAB Standard 6: Accounting for Property, Plant, and Equipment. Inappropriate reporting is one issue reported by the GAO (2018b) in the DoN's financial statements as a material misstatement. The DoN real property recording is a critical tool for assigning funding for facility

improvements for naval installations owned or leased. The following sections discuss the research purpose, the research questions, and the benefits and importance of this research.

B. RESEARCH PURPOSE

The purpose of this research is to determine how the completeness and existence of facility real property records at Naval Support Activity Monterey (NSA Monterey) impact the yearly funding forecast allocation from the Commander, Navy Installations Command (CNIC).

C. RESEARCH QUESTIONS

This study answers the following research questions:

1. What are the internal policies by Office of the Secretary of Defense (OSD), Commander, Navy Installations Command (CNIC), and Naval Facilities Engineering Command (NAVFAC) for reporting real property records data at Naval Support Activity Monterey?

2. For which internet Navy Facility Assets Data Store (iNFADS) records are there no existing real property?

3. For which real properties are there no existing iNFADS records?

4. What is the impact to the FSM allocation to NSA Monterey and on audit readiness if errors are present in the database?

D. BENEFITS AND IMPORTANCE OF THE RESEARCH

Facility property records are reflected in the financial statements of the DoN, the DoD, and federal government (FASAB, 1995). The DoN is one of 24 DoD agencies, departments, and field activities, not including other special entities, that reports its financial statements under the DoD (DoD, n.d.-a). The DoN accounts for approximately 27% of the PRV of assets reported in DoD financial statements (DoD, 2018b). In 2017, independent auditors reported material weaknesses in real property records data for the DoN due to insufficient internal controls (GAO, 2018b). The DoN needs to determine the

completeness and existence of all 61,368 buildings, 33,688 structures, and 16,881 linear structures for a total of 111,937 assets worldwide valued at $238.5 billion as of FY2017 (DoD, 2018b).

The DoN is currently in the development stages to undergo a department-wide completeness and existence effort led by the Naval Facilities Engineering Command (NAVFAC; GAO, 2018b). The objectives of this research are as follows:

- Determine the completeness and existence of property records at Naval Support Activity Monterey (NSA Monterey)
- Determine how the completeness and existence of facility real property records at Naval Support Activity Monterey (NSA Monterey) impact the yearly funding allocation from the Commander, Navy Installations Command (CNIC)

The Office of the Assistant Secretary of Defense for Energy, Installations, and Environment for Facilities Investment & Management (FIM) uses the Facility Sustainment Model (FSM) to forecast the projected funding requirement for the repair and maintenance of Class II real property (DoD, n.d.-a). NAVFAC (2008) states that Class II real property contains the following:

- Type 2—Buildings
- Type 3—Structures
- Type 4—Utilities

The iNFADS data is used to generate the financial statements for the DoN (NAVFAC, 2008). The incompleteness of iNFADS affects the DoN's ability to accurately represent assets and liabilities, thus impacting mission readiness (GAO, 2018b) This research study is important because it may provide additional insight into these issues and could be the basis upon which future research and possible policy can be derived to improve the fidelity of facility property records.

Accurate facility real property records provide a substantial benefit to all stakeholders within the DoN, the DoD, and the federal government, who then can create complete and accurate financial statements (GAO, 2017b). Accurate recording of facilities enables the existence and completeness of facility real property record financial data reported in the consolidated financial statements (GAO, 2016b). The DoN and the DoD benefit from accurate reporting by providing quality data as a means to complete the following four objectives (GAO, 2016b):

1. To understand facility maintenance costs and ways to reduce these costs
2. To make financial accountability reliable by improving the accuracy of the database toward funds control to meet current and future demands
3. To ensure that financial information is reliable and can help with the identification of fraud, waste, and abuse
4. To use the data as a tool to quantify the readiness status of the force

Accurate facility property records help comply with the mandate by Congress to submit the FY2018 financial statement audit results by March 31, 2019, as stated in the National Defense Authorization Act (NDAA) for FY2014 (GAO, 2016b). The following section describes the methodology.

E. METHODOLOGY

The real property processes and policies governed by the Office of the Secretary of Defense (OSD), CNIC, and NAVFAC were reviewed, and the process for real property recording at NSA Monterey was identified. The NSA Monterey real property data records in iNFADS were reviewed for completeness and existence. A query in iNS was run to identify facilities under NSA Monterey Activity UIC of N61014 and sorted by Class II property records. Then, a 100% physical inventory of real property category Class II facilities was conducted to assess the existence of the facilities in the records and to ensure accurate recording of existing facilities. After the installation was divided into a grid patterns, a physical search of each asset by grid was performed, and any missing facility

real property records in the database were identified. Finally, the FSM was calculated to quantify the sustainment and modernization funding forecast change before and after the facility real property inventory verification at NSA Monterey. The next section discuseses the scope and organization of this research paper.

F. SCOPE AND ORGANIZATION

This research consists of five chapters, including this introduction. Chapter II provides a literature review to explain policies and procedures to determine the completeness and the existence of real property records data. Chapter II, also includes the method to calculate the 100% FSM allocation forecast. Chapter III describes the methodology used to conduct the research and the method to calculate the FSM allocation forecast. Chapter IV describes the analysis and findings from the existence and completeness verification and the calculated FSM before and after the existence and completeness verification was conducted to account for facility property records discrepancies. Chapter V provides a summary of this research and areas for further research.

G. SUMMARY

This chapter presented the background, the purpose of this research, and the research questions. The benefits and the importance of this research were also discussed. Finally, the methodology was briefly outlined, and the scope and organization of the research were presented. The next chapter provides a literature review of the DoN policies related to facilities real property assets as well as the Facility Sustainment Model.

II. LITERATURE REVIEW

A. INTRODUCTION

The Department of Defense (DoD) continues to work with the Department of Navy (DoN) and the other services to improve controls and financial statements with the goal of achieving financial auditability. The objective of the government accounting systems is to prevent fraud, waste, and abuse; to become efficient and effective in financial management; and to guide the execution of taxpayers funds (Chan, 2003). Facility real property is a significant element of the consolidated balance sheet as a tangible asset as defined by the Federal Accounting Standards Advisory Board (FASAB, 2017). Tangible assets include property, plant, and equipment (FASAB, 2017). A tangible asset's estimated useful life is more than two years (FASAB, 2017). These assets are not intended for sale and are projected to be used for their anticipated lifespans. All service departments are required to record each asset and its associated depreciation accurately upon construction and evaluate them yearly thereafter (FASAB, 2017). The DoN official system to collect and store its facility real property assets is the internet Navy Facility Assets Data Store (iNFADS) (NAVFAC, 2008), which was created based on a requirement by the DoD to establish a database to manage all property to which the DoN has a legal interest (NAVFAC, 2008). The DoN assigned Naval Engineering Facilities Command (NAVFAC) as the organization with the responsibility to collect, process, store, and display all facility property records located in iNFADS (NAVFAC, 2008). The Government Accountability Office (GAO, 2018b) found discrepancies in the DoN's assertions with regards to completeness and existence of real property records located in iNFADS. GAO found that four out of 40 facilities had complete records but lacked physical existence (GAO, 2018b).

This chapter presents reviews of DoD financial auditability, the importance of property records, policies governing financial statements, and the recording of real property. It also reviews the Facility Sustainment Model and its calculation, the impacts of inaccurate records, iNFADS database management, and benefits of accurate facility real property records. The purpose of this literature review is to examine current policies and procedures to assert the completeness and existence of real property records at Naval

Support Activity Monterey (NSA Monterey) and its policies to determine the installation allocation through the lens of the Facility Sustainment Model (FSM). The next section presents a review of the steps the DoD has taken toward financial auditability.

B. FINANCIAL AUDITABILITY

Federal government agencies are required to produce auditable financial statements (GAO, 2018b). In 1990, Congress passed the Chief Financial Officer Act (CFO Act) (Public Law 101–576, 1990). It required the 24 largest federal agencies, including the DoD, to undertake comprehensive and independent yearly financial audits. Financial statements audits are typical for any federal agency as described by FASAB (2017). The National Defense Authorization Act (NDAA) for Fiscal Year 2010, Section 1003, included requirements for the DoD to initiate, plan, and develop the Financial Improvement and Audit Readiness (FIAR) Plan to be audit-ready by September 30, 2017. The goal was to correct material weaknesses that negatively impact the DoD's financial statements. The DoD does not yet possess the ability to prepare appropriate, trustworthy, and reasonably accurate financial statements (GAO, 2017b).

Since 1995, the GAO has rated DoD financial management as high-risk to fraud, waste, abuse, or mismanagement as evidenced by the fact that the DoD's financial statements are not auditable (GAO, 2018b). Some of the deficiencies result from a lack of detailed procedures, inefficient or outdated systems and software, ineffective internal controls, and inaccurate corrective action plans (GAO, 2017b). GAO identified internal control deficiencies as a problem within the DoN, hindering the DoN's ability to achieve complete and accurate reporting of facility inventories and reducing the accuracy of the DoN's financial statements (GAO, 2018b).

DoN efforts to attest the completeness and existence of real property records in one of its high-risk areas as identified by the GAO (2016a) requires the knowledge of the following terms used throughout this research study:

- Assertion: Declarations about whether the subject matter is presented by certain criteria. (Whittington & Pany, 2014, p. 757)

- Attest: A practitioner is engaged to issue or does issue an examination, a review, or an agreed-upon procedures report on subject matter or an assertion about a subject matter that is the responsibility of another party. (Whittington & Pany, 2014, p. 1)

- Existence: Recorded transactions and events occurred during the given period, are properly classified, and pertain to the entity. An entity's assets, liabilities, and net position exist at a given date. (GAO, 2018a, p. 235-1)

- Completeness: All transactions and events that should have been recorded are recorded in the proper period. All assets, liabilities, and net position that should have been recorded have been recorded in the proper period and properly included in the financial statements. (GAO, 2018a, p. 235-1)

For the DoN to achieve a qualified opinion during an audit, it requires trained individuals, using matured processes implemented by a sound internal control program to achieve auditability. Figure 1 presents the audititabilty triangle as a concept for any organization to achieve audit readiness (Rendon & Rendon, 2015).

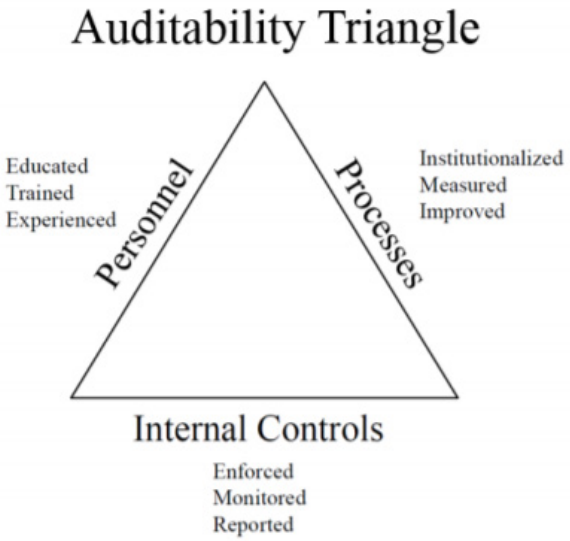


Figure 1. Auditability Triangle. Source: Rendon and Rendon (2015, p. 716).

The FIAR Guidance sets forward the goals, priorities, strategy, and methodology to achieve audit readiness (Office of the Under Secretary of Defense [Comptroller]/Chief Financial Officer ([OUSD(C)], 2017b). The goal of FIAR is to enhance the DoD's financial management transactions and to improve resource management of taxpayer funding. The 2017 FIAR guidance emphasizes the importance of existence and completeness of assets for federal agencies as follows:

> Reporting entities must ensure that all accountable assets recorded in their APSRs, general ledgers and financial statements exist (Existence), all of the reporting entities' accountable assets are recorded in their APSRs, general ledgers and financial statements (Completeness), reporting entities have the right to report these assets (Rights), and assets are consistently categorized, summarized and reported period to period (Presentation and Disclosure). (OUSD[C], 2017b, p. 8)

Figure 2 outlines the DoD Consolidated Financial Statement audit timeline describing the phases, as of November 2017, involved in the DoD path to report results to Congress in 2019 (DoD, 2017b).

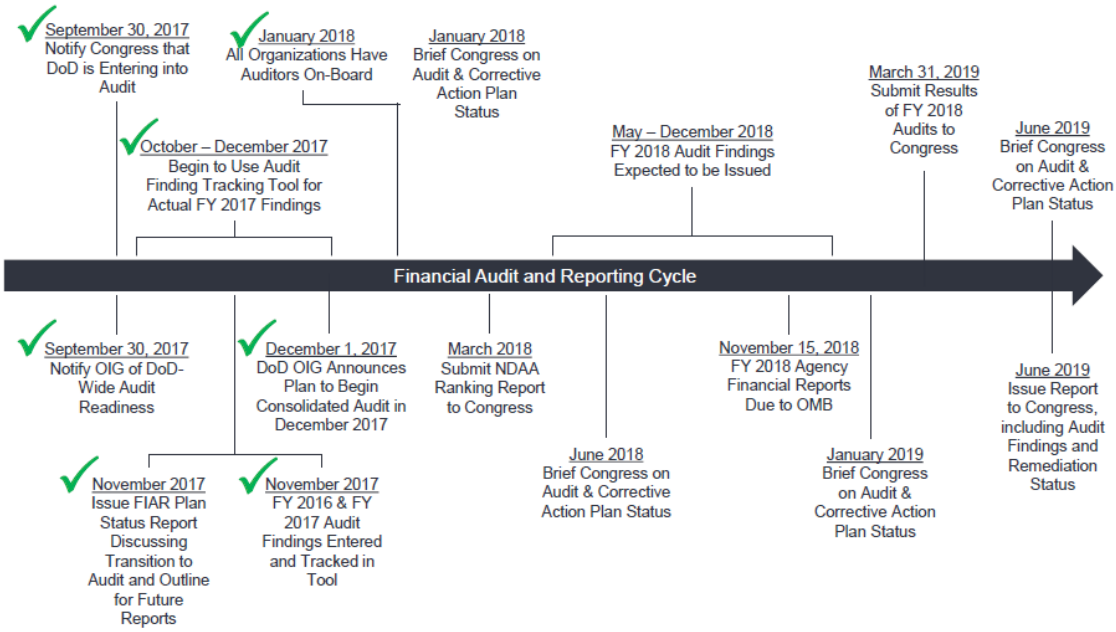


Figure 2. FIAR Plan Status Report November 2017. Source: DoD (2017b, p. ES-4).

The DoD Agency Financial Report Fiscal Year 2018 reinforced its objective to conduct floor-to-book—and vice versa—reconciliation of real property records with its supporting documentation, to determine existence and completeness (DoD, 2018a). Since 1990, the DoN has coordinated with the DoD in its effort to attest to the existence and completeness of its financial statements (GAO, 2018a). Problems still persist throughout the DoN and inhibit the validity of its financial statements due to inaccurate recording of facility real property records.

The DoD continues to pursue positive steps and continue the process to improve policies and procedures toward the improvement of financial documentation. The overall goal is toward reporting accurate financial statements and becoming transparent with the use of taxpayer's funds. The next section presents a discussion of the importance of facility real property records.

C. USE OF FACILITY REAL PROPERTY RECORDS

Real property enables operational functions of the DoN and DoD. Accurate real property data is a critical enabler for the success of the mission (DoD, 2005). Reliable facility real property records enable resource-leveling requirements to support informed decisions for the near and long-term goals (DoD, 2005). The records are one essential driver to determine the yearly funding request associated with the Program of Memorandum (POM; DoD, 2005). Facility property records undergo the process of assertion for existence and completeness of real property record data. Figure 3 shows the assertion element and the respective allocation of the facility property plant replacement value (PRV) with its corresponding depreciation for the fiscal year under review (DoD, 2005).

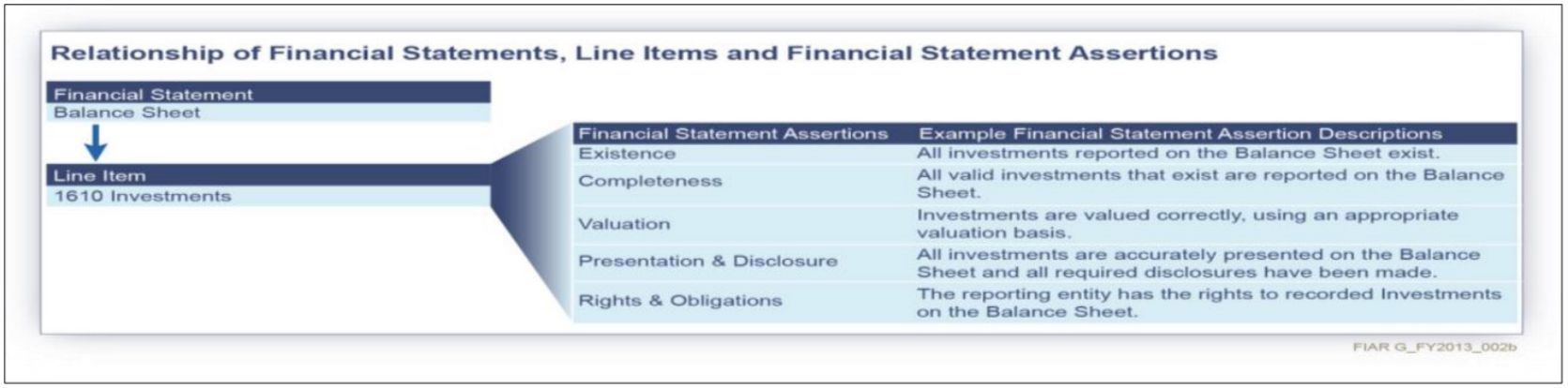


Figure 3. Relationship of Financial Statements, Lines Items, and Financial Statements' Assertions.
Source: DoD (2017b, p. 4).

In the November 2016 FIAR Plan Status Report, the DoN asserted its commitment to audit readiness for existence and completeness of facility real property records by March 2017 (DoD, 2016a). In the November 2017 FIAR Plan Status Report, the DoD reported completion for the evaluation of existence and completeness for facility real property records under the DoN (DoD, 2017b).

The DoN was the first DoD department to assert completeness and existence of real property records, and the GAO evaluated the assertion in May 2018 (GAO, 2018b). During the GAO engagement to assess the completeness and existence of facility real property, the GAO found deficiencies in the process, which means that the DoN wrongly asserted the existence and completeness of facility real property (GAO, 2018b). The GAO (2018b) found that internal control deficiencies hindered the DoN's ability to produce accurate real property records to be included in the federal government financial statements.

The accuracy of the iNFADS database is crucial to all installations, the DoN, and the DoD. Inaccuracies impact the installation's ability to receive the appropriate funds to repair and maintain facilities and, at the same time, inhibits DoN and DoD financial transparency and funds fidelity to meet emerging and future demands (GAO, 2017a). Existence and completeness verification of the iNFADS database provides the DoN with the level of fidelity required to budget for current and future requirements (GAO, 2018b).

Inaccurate existence and completeness of real property records affect the consolidated balance sheet for the DoN and DoD, as it provides inaccurate information to assess short-term and long-term assets. The next section expands on current policies to determine completeness and existence for the DoN.

D. POLICY

The Office of Facilities Investment & Management (FIM) under the Assistant Secretary of Defense for Energy, Installations, and Environment (ASD[EI&E]) has overall responsibility for DoD installations worldwide (DoD, n.d.-a). The FIM's role is to implement policy over facilities owned or leased by the DoD (n.d.-a). The DoD has an inventory of over 555,000 facilities composed of buildings and linear and vertical

structures on more than 28 million acres at 5,000 sites worldwide (DoD, n.d.-b). Facility property records, inventory, and valuation of real property must comply with requirements defined in Title 10 of the United States Code (U.S.C.). The DoN, as directed by the DoD, must establish and maintain an official record of the financial and physical data such as land, buildings, structures, and utilities on its real property records.

The FMR (2012) Title 41 requires all federal agencies to provide real property inventory reports to the General Service Administration (GSA). Title 41 sets the stage to establish a database to record real property data, which is iNFADS for the DoN (FMR, 2012). Review of the iNFADS database is required as it is the main resource for understanding and quantifying the existence and completeness of real property records (GAO, 2018b). DoD (2016b) sets reporting thresholds for real property assets at $20,000 from October 1, 2007, to September 30, 2013. The DoD memorandum from the director of acquisition resources and analysis increased the capitulation threshold from $20,000 to $250,000 for facilities placed in the database after October 1, 2013 (Spruill & Easton, 2013). Currently, there is a policy change under review to define the threshold of $15,000 as the baseline to determine an accountable real property (C. Douglas, personal communication, October 25, 2018). The limit will contain various exceptions to financially account for assets below $15,000 if they meet one of the following exceptions: required by law, heritage facility, relevant or above mission dependency, or part of a larger facility with a cumulative cost above $15,000 (C. Douglas, personal communication, October 25, 2018). The policy is the DoN memorandum, *Real Property Accounting Interim Guidance: Accountability Threshold and Prefabricated Structures* (C. Douglas, personal communication, October 25, 2018). For this research, the analysis of the database focuses on Class 2 real property to assert existence and completeness of real property records for NSA Monterey. NAVFAC (2008) establishes the reporting requirements for each real property category including the real property records card, which is recorded in iNFADS, through the use of form DD-1354 Transfer and Acceptance of Military Real Property (NAVFAC, 2008).

NAVFAC (2008) contains the classification records for real property. The classification of real property is divided into two categories, which include the following:

- Class I—Land
    - Type 1—Land
- Class II—Buildings, Structures, and Utilities
    - Type 2—Buildings
    - Type 3—Structures
    - Type 4—Utilities

Users of financial information require accurate data of current and projected financial liabilities to make informed decisions and to understand the financial position of the company (Whittington & Pany, 2014). The DoD is not immune to this process. Not only are accurate records needed for audit readiness purposes, but they also affect budgetary allocations for the sustainment of real property because competing priorities affect the final allocation of funds (GAO, 2018b).

Policy determines the type of assets counted in the determination of completeness and existence of facility real property inventory records. Accurate real property records are used to determine the FSM for the DoN. The FSM is the tool used by the DoD and the DoN to forecast facility sustainment costs, which are further discussed in the next section.

E. FACILITY SUSTAINMENT MODEL

According to its real property database, the DoN owns approximately 111,937 facilities composed of buildings, structures, and linear structures located on 974 locations worldwide, encompassing over 2.2 million acres (DoD, 2018b). The DoN fulfills its mission requirements within the DoD through its vast physical footprint valued at over $238.5 billion, enabling ships, troops, and equipment to be ready to meet its demands and global reach capabilities (DoD, 2018b). A considerable amount of resources are needed to maintain, operate, and improve facilities worldwide. The DoD budget estimate for fiscal year (FY) 2019 contains facilities sustainment, restoration, and modernization allocations in the amount of $2,040 million (DoD, 2018e). Figure 4 presents NSA Monterey facilities

sustainment, restoration, and modernization allocations. The sustainment allocation is used to maintain facility real property throughout the DoD, and NSA Monterey only accounts for 0.34% of the overall DoD allocation from the analysis of the fiscal year (FY) 2019 projected allocation.

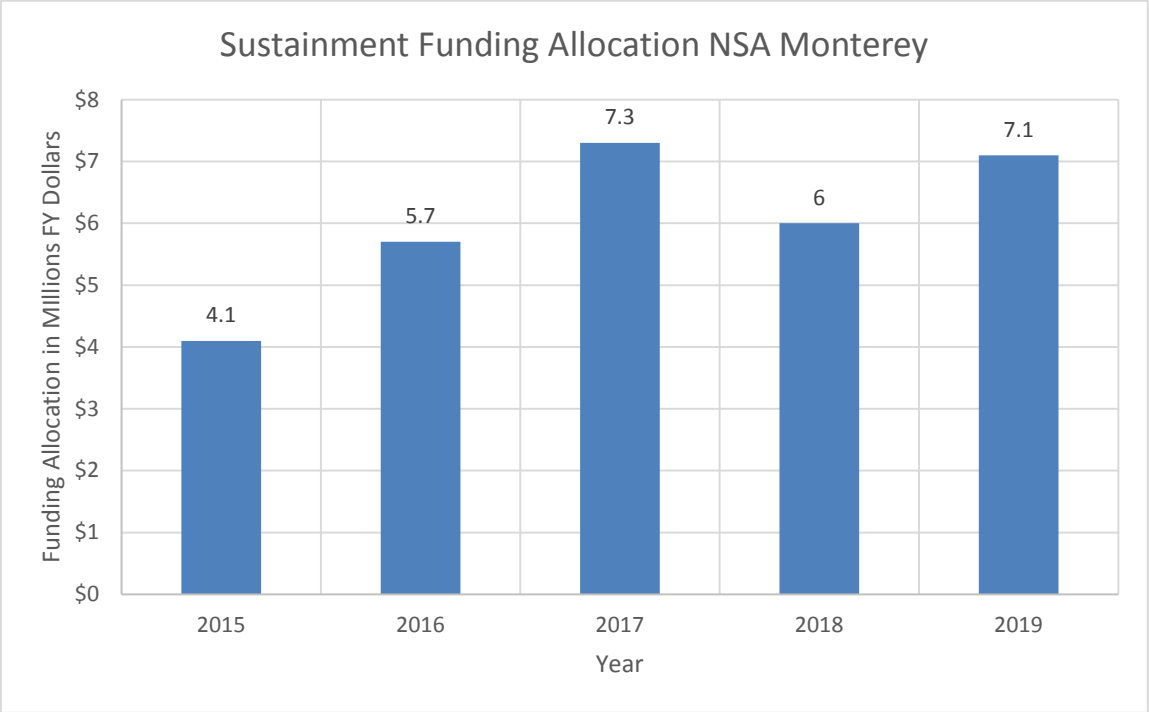


Figure 4. NSA Monterey Sustainment Allocation. Adapted from Public Works Department Monterey (personal communication, October 15, 2018).

The DoD uses the Facility Sustainment Model (FSM) to project funding levels for sustainment, restoration, and modernization (DoD, 2017c). It projects the annual facility sustainment costs for the facilities inventory included in the DoD database (DoD, 2017c). During their life-cycle, facilities require maintenance to repair day-to-day wear and maintain the facilities for their intended purposes (DoD, 2016a). The resource allocation for each facility provides for emergency and routine repairs, preventive maintenance, and replacement of major facility components based on its particular life-cycle (DoN, 2014). Buildings are constructed with the intention to have tangible assets with a useful life of 50

years (DoN, 2014). Typically, the DoN only funds a portion of the FSM requirement because of higher priority needs.

The FSM allocation does not fund particular end items through each facility such as non-attached equipment, furniture, or specialized laboratory equipment installed throughout the facility. It also does not fund facilities operations such as custodial services (DoD, 2016b). The Unified Facilities Criteria (UFC) directives constitute a coordinated effort by the services to unify all associated cradle-to-grave efforts invested in facilities under one vision. The effort is coordinated by the United States Army Corps of Engineers, NAVFAC, and the Air Force Civil Engineer Center (DoD, 2016a). The UFC directives "provide planning, design, construction, sustainment, restoration, and modernization criteria, and apply to the Military Departments, the Defense Agencies, and the DoD Field Activities in accordance with DoD Directive 4270.5 (Military Construction) and USD (AT&L) Memorandum dated 29 May 2002" (DoD, n.d.-b).

The DoN (2014) assigns maintenance funding, which is analyzed with the use of the FSM projection allocation, for the upkeep of facilities to fulfill mission requirements. UFC 2-000-05N, *Unified Facilities Criteria (UFC), Facility Planning Criteria for Navy/ Marine Corps Shore Installations*, defines factors to calculate the FSM allocation for each facility (DoD, 2018f). Similarly, DoDINST 7000.14-R contains the FSM and the method to calculate the respective facility maintenance funding allocation (DoD, 2016b). It also includes the requirement to conduct an inventory of real property assets at the minimum interval of every five years. Analysis of these policies describes the determination of the FSM forecast cost.

The accuracy of real property records determines the validity of the FSM as the tool to forecast maintenance costs (R&K Solutions, 2018). Figure 5 illustrates the process to calculate the FSM for the DoD, and the first step is the Preprocess Official Real Property Inventory (RPI), which includes an errata cycle to account for iNFADS misreporting (R&K Solutions, 2018). The FSM requires the input of errata to account for discrepancies in the iNFADS database signaling the inaccuracy of the database and a need to create a separate system to record erroneous data (R&K Solutions, 2018).

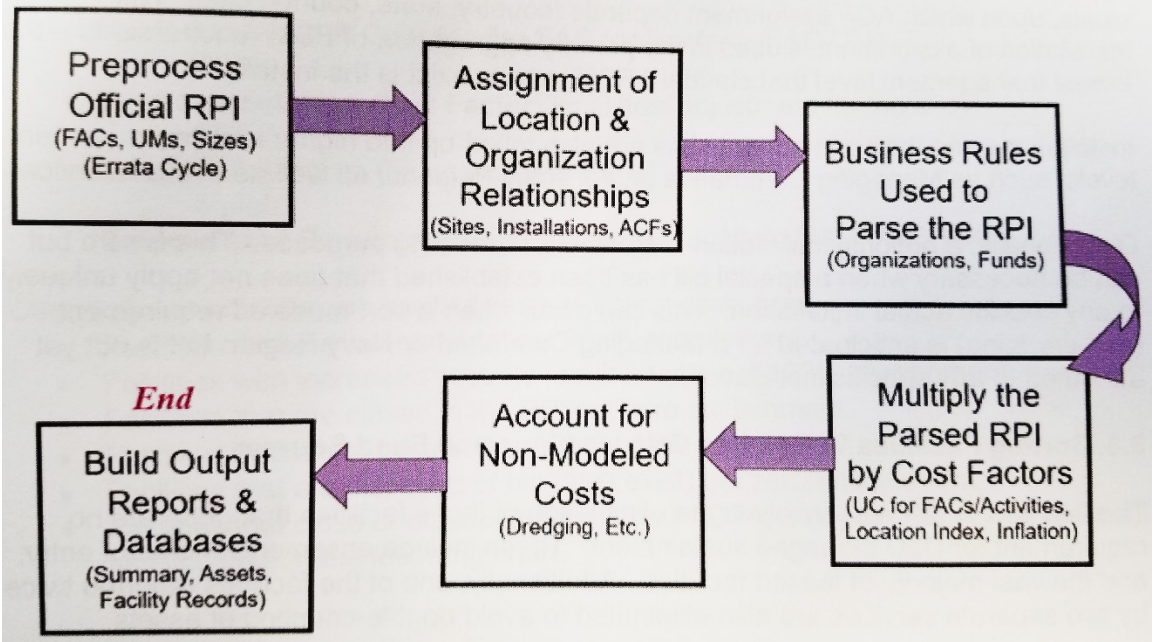


Figure 5. Simplified FSM Data Processing. Source: R&K Solutions, Inc. (2018, p. 13).

This section explained the FSM. The following section provides an explanation of the process to determine the FSM allocation at the installation level. It also describes the FSM equation and all factors associated with the FSM calculation.

F. USING THE FACILITY SUSTAINMENT MODEL EQUATION

The UFC guideline 3-701-01 defines the calculation of the FSM equation as the sustainment requirement equation (DoD, 2018c). The following is the equation to calculate the sustainment requirements:

$$\text{Sustainment Requirement (SR)} = Q * SUC * SACF * I \quad (1)$$

The following equation factors are needed to calculate the Sustainment Requirement:

Facility quantity (Q)—The facility quantity or size units use a specific unit of measure (DoD, 2018c). Depending on the real property assets, the unit of measure varies from square feet, to square yards, to gallons, or to the number of units. Some examples are a facility with a 1,000 square feet area or 10 light poles for the number of units. Both units of measure are specific to a unique Facility Analysis Category (FAC) (DoD, 2018c). FACs

are represented by a unique four-digit code based on the main purpose of the facility. This four-digit code is tied to the DoD Real Property Classification System (DoD, 2018c). The system contains all four-digit codes for the DoD and serves as the foundation to determine the facility sustainment cost to be used to calculate the appropriate raw sustainment funding allocation (DoD, 2018c).

Facilities recorded in the iNFADS database contain the facility quantity factor Q. The factor Q must be calculated for facilities not recorded in iNFADS database. DoD Facilities Pricing Guide (2018c) contains all the parameters to calculate Q for the non-recorded facilities. Those parameters are as follows:

- DoD FAC Code—The DoD FAC Code is used for classification of the facility. Depending on the primary use of the facility, a four-digit code is referenced in the database and is associated with the specific use of the facility.

- Facility Type Code—The Facility Type Code determines the category code of the facility. The code ranges from category I to category IV and is tied to the DoD FAC Code.

- Area Unit Measure Code—The Area Unit Measure Code is used to assign the correct measurement unit with regards to the unique DoD FAC Code.

- Area—The area is calculated by a physical measurement or with the use of a drawing if available. The unit of measure shall be the same as the reference for the selected DoD FAC Code and Area Unit Measure Code

DoD Facilities Pricing Guide (2018c) is the source to calculate factor Q. First, the primary purpose of the facility is determined. Second, the DOD FAC Code is identified which aligns with the primary use of the facility. Third, the unit of measure associated with the DoD FAC Code is selected. The last step is to calculate the number of units for the specified unit of measure from the selected DoD FAC Code.

Sustainment cost factor (SUC)—This factor is also known as the Sustainment Unit Cost (DoD, 2016b). The factor contains a combination of the cost associated with the facility,

which includes a yearly sustainment cost in addition to the cost of significant end item replacements over the lifespan of the facility. The SUC is calculated by determining the average annual unit cost (in current year dollars) for the sustainment of the typical-type facility for the unique FAC (DoD, 2018c). The UFC 3-701-01 Sustainment Unit Cost Section contains predetermine factors associated with each FAC (DoD, 2018c). The following are the three sources DoD used to determine the SUC factor:

- Source 1: This source uses commercially available data to project the cost for a similar purpose facility with similarities between the general industry and the DoD. Use of commercial sources is the most reliable factor as it gathers data from the general industry to validate the factors to meet the intent of the DoD.

- Source 2: This source uses unique DoD infrastructure records for which there is no commercially available comparison model to determine the cost associated with the facility. Factors used have been validated by DoD or its components.

- Source 3: This source is the most inaccurate method to determine the factor of unique facilities, which has not been validated by the DoD or the services. The method uses a percentage of the PRV after the facility is constructed because it is one of a kind.

The UFC 3-701-01 Sustainment Unit Cost Section contains the appropriate source for each unique FAC (DoD, 2018c). The selection of the best source to forecast maintenance cost was conducted by DoD for each FAC (DoD, 2018c).

Location factor (SACF)— This factor is also known as the sustainment area cost factor and is a location adjustment factor. It analyzes localized costs for labor, equipment, and materials. It also includes currency exchange rates for foreign locations compared with the city base average (DoD, 2016b). The sustainment area cost factor associated with each unique FAC and location is found in the UFC 3-701-01 Sustainment Unit Cost Section (DoD, 2018c).

Inflation (I)—Inflation factor is used to adjust prices to the target year. Prices are obtained from the Under Secretary of Defense (Comptroller). The UFC 3-701-01 Sustainment Unit Cost Section contains the inflation factors associated with each unique FAC (DoD, 2018c).

The FSM model also includes additional factors for specific facilities:

Monumental Facility Adjustment—Currently, only 72 property records are designated as historical or monumental (R&K Solutions, 2018). The adjustment factor for facilities under this category is 2.01. The facilities under this category tend to have historical significance (R&K Solutions, 2018).

Increase Security Facility Adjustment—Facilities with additional security measures above and beyond the typical security requirement are more expensive to maintain (R&K Solutions, 2018). The adjustment factor for facilities under this category is 1.2 (R&K Solutions, 2018).

This section focused on the method to calculate the 100% FSM allocation for NSA Monterey. The next section discusses the impacts of inaccurate facility real property records for the federal government.

G. IMPACTS OF INACCURATE FACILITY REAL PROPERTY RECORDS

Financial reporting and audits of financial reports provide management of public and private companies oversight as they undergo extensive financial management process integration to assess the business core and to improve operating, financial, and management information presented in the general ledger system of the organization or company (Brook, 2010). Accurate facility real property data is an essential element for audit readiness as the data is an important component of the financial statements (FASAB, 1995). Inaccurate facility property records data impacts the DoN's ability to provide accurate financial statements and represents a material weakness identified by the GAO and independent auditors (GAO, 2018b). Incorrect facility real property records hinder resource-leveling requirements and negatively impact the ability of management to support near- and long-term requirements (DoD, 2005). Inaccurate data restricts the ability of the DoD and the DoN to conduct operations, thus impacting mission success (GAO, 2018b).

Failure to account for completeness and existence of real property impairs the Navy's, the DoD's, and the federal government's ability to assert the comprehensiveness of federal financial records with the goal of improving audit readiness (GAO, 2016b).

The accuracy of the iNFADS database is crucial to all installations, the DoN, and the DoD. Inaccuracies impact the installation's ability to receive the appropriate funds to repair and maintain facilities and inhibit DoN and DoD financial transparency and funds fidelity to meet emerging and future demands. Existence and completeness verification of the iNFADS database provides the DoN the level of fidelity required to budget for current and future requirements. Inaccurate records continue to impact short and long-term projections (GAO, 2018b). Inaccuracies impact the ability of DoD to execute its mission as the DoD is funded by yearly appropriations which are capped by Congress (DoD, 2017b). This section presented elements impacted by inaccurate real property records. The next section discusses the real property recording process for DoN.

H. RECORDING PROCESS IN INFADS

This section describes the real property recording process. The P-78 starts the recording process with the acceptance of the form DD-1354, Transfer and Acceptance of Military Real Property (NAVFAC, 2008). Once this record is accepted, the information is then inputted into iNFADS. Figure 6 provides a graphic representation of the information stored, system complexity, and other processes dependent on the accuracy of iNFADS data. It illustrates iNFADs as a data repository for all systems to requisition data to create reports, which are distributed throughout the DoN and DoD (NAVFAC, 2008). It centers the data in the facility cell referencing real property and illustrates the importance of accurate real property data. One operational element of iNFADS is directly linked to mission readiness as it ties with the Defense Readiness Reporting System portraying current facility status to support operations (NAVFAC, 2008). The iNFADS database is managed by NAVFAC as directed by CNO (NAVFAC, 2008). Real property information is then reported to OSD through the Real Property Asset Database (RPAD), and it serves as the repository of facility property records data from all services and standardizes the data (NAVFAC, 2008). The information for the database is used for the calculation of the FSM and also accounts for

the DoD's tangible assets, which are recorded in the DoN and DoD financial documents, respectively (NAVFAC, 2008). The iNFADS database is used to compute the FSM, the Facilities Recapitalization Model (FRM), and the Facilities Operations Model (FOM) in support of the DoD budget development for future fiscal years (NAVFAC, 2008). Figure 6 also depicts the array of systems and their complexity in the use of data contained in the iNFADS database. These systems are linked through the use of iNFADS as it stores the data referenced, including unique elements for the accounting system, and the reporting system's unique naming conventions requirements, respectively (Hoge & Martin, 2006). The accuracy of iNFADS is essential to report valid information as the information contained within iNFADS is used by multiple other systems to meet their unique objectives. The next section examines the installation of NSA Monterey as the central element to give a context of the area under review for this research project toward validation of the existence and completeness of real property.

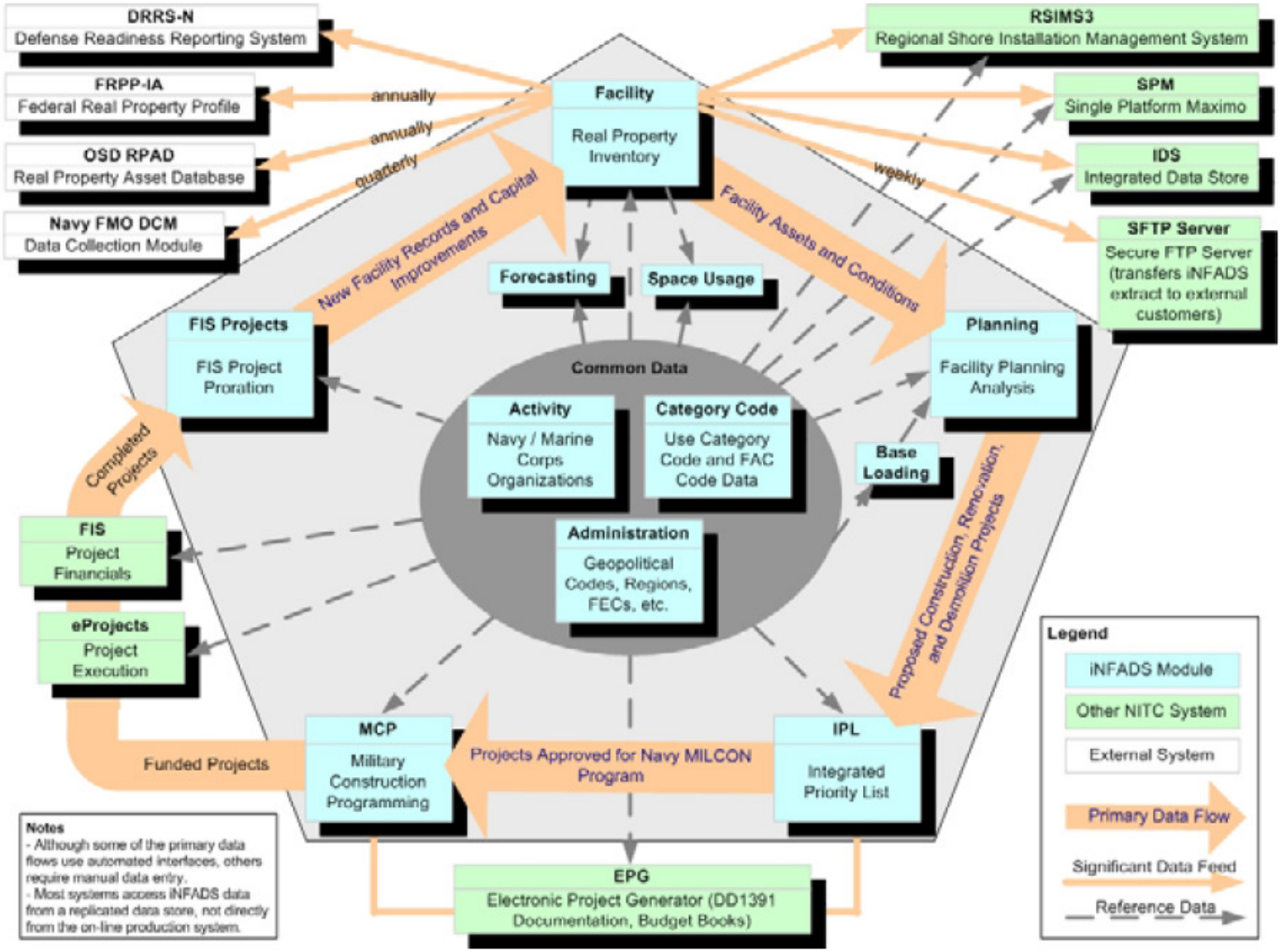


Figure 6. NAVFAC Information Technology Center System Architecture Model Source: NAVFAC (2008, p. 3-7).

I. NAVAL SUPPORT ACTIVITY MONTEREY

Naval Support Activity Monterey (NSA Monterey) is composed of one main site and multiple special areas the within proximity of the Monterey Peninsula with additional outlying special areas (Commander, Navy Installation Command [CNIC], n.d.). NSA Monterey contains over 15 tenant commands. It includes the Naval Postgraduate School (NPS), Fleet Numerical Meteorology and Oceanography Center (FNMOC), and Navy Research Lab (NRL) as some of the major tenants (CNIC, n.d.). As a supporting command, NSA Monterey is responsible for the maintenance of over 160 buildings on approximately 626 acres (CNIC, n.d.). Figure 7 shows the location of NSA Monterey and one of the special areas known as Beach Lab.

Figure 7. NSA Monterey and the Beach Lab Special Area. Adapted from Public Works Department Monterey (personal communication, October 15, 2018).

J. SUMMARY

This chapter reviewed DoD financial auditability and measures to improve financial documentation and report accurate financial statements. Next, the literature review included a discussion of facility property records and their impact on the consolidated financial statements. The policies to record real property records were reviewed. The FSM was explained followed by the FSM equation and the calculation process. The literature review also described the impacts of inaccurate facility real property records on the consolidated financial statements. Also, the literature review included the recording process of real property records in iNFADS. This chapter concluded with a general perspective of NSA Monterey as the objective of the completeness and existence verification. The next chapter describes the methodology used to conduct the existence and completeness verification for NSA Monterey and the respective FSM calculation.

III. METHODOLOGY

A. INTRODUCTION

The purpose of this research is to determine how the completeness and existence of facility real property records at Naval Support Activity Monterey (NSA Monterey) impact the yearly funding forecast allocation from the Commander, Navy Installations Command (CNIC). The process of existence is to determine if all assets exist (Whittington & Pany, 2014). The process of completeness is to determine if assets that should have been recorded are recorded in the correct time and period (Whittington & Pany, 2014). After completeness and existence are assessed, the facility sustainment model (FSM) is calculated. The FSM is calculated before and after reviewing completeness and existence to determine the change in allocation for NSA Monterey and does not include special areas under NSA Monterey jurisdiction.

This chapter has two primary sections. The first section focuses on determining the existence and completeness of the internet Navy Facility Data Store (iNFADS) database. The second section focuses on the calculation of the FSM to determine the sustainment allocation forecast for NSA Monterey after the iNFADS database is validated. It further develops the process used to assert the existence and completeness of class II real property at NSA Monterey. It also develops the methodology used during the 100% FSM calculation for NSA Monterey. This research study only examines iNFADS data for NSA Monterey. It does not review real property record data for special areas outside the contiguous space of NSA Monterey.

This research study primarily utilized the instructions and procedures from the Office of the Secretary of Defense (OSD), Department of Defense (DoD), Federal Accounting Standards Advisory Board (FASAB), CNIC, and Naval Facilities Engineering Command (NAVFAC) as well as iNFADS records and Government Accountability Office (GAO) reports, to conduct the preliminary research on the Department of the Navy's (DoN) facility real property records at NSA Monterey. Once the literature review was completed, an analysis of the facility real property records from NSA Monterey was conducted for

existence, completeness, and policy compliance. The in-depth analysis consisted of visual/ physical asset confirmation with the iNFADS records and validation of data to correctly identify and assess the assets. Additionally, this analysis assessed the FSM funding requirement projection guidelines from the OSD for DoN installations and its allocation to NSA Monterey.

The first objective of this research study was to examine real property records located in iNFADS for completeness and existence. The second objective was to determine the impact of recorded discrepancies on the FSM allocation for repairs and maintenance of facilities at NSA Monterey. To achieve these objectives, the following research was conducted:

- Analyzed current policies and procedures to record facility real property records from the OSD, the DoN, CNIC, and NAVFAC
- Conducted a physical inventory of the facilities real property assets for completeness
- Identified any missing real property records no longer in existence in the database
- Calculated the FSM allocation and made corrections to the model due to inaccuracies in the real property data

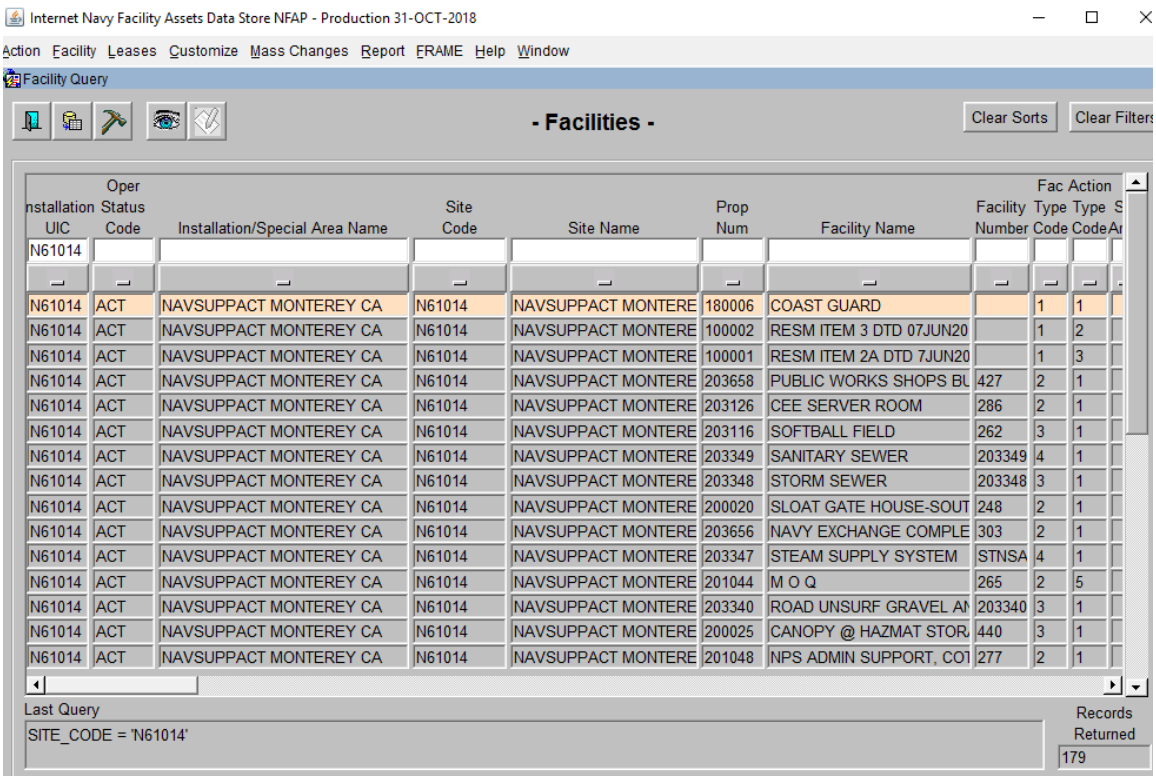
In this research, all assets were researched and verified regardless of the dollar threshold. The next section illustrates the method used to determine existence and completeness of iNFADS for NSA Monterey.

B. PROCESS FOR DETERMINING EXISTENCE AND COMPLETENESS

Facility real property shall exist and be recorded in the iNFADS database respectively. The completeness of the database measures the accuracy of the information by the services to achieve financial fidelity and serves to identify processes, policies, and procedures impeding the completeness of the database. To validate the database for NSA Monterey, the iNFADS database was reviewed with the following process.

1. Retrieval of iNFADS Data

Real property data from iNFADS is located in the Naval Facilities Engineering Command (NAVFAC) portal. Retrieval of facility property records data requires access to the iNFADS database. To retrieve NSA Monterey data, a query must be conducted. Conducting the query requires knowledge of the unique Unit Identification Code (UIC) associated with the installation. The UIC for NSA Monterey is N61014. The N refers to Navy-owned facilities (NAVFAC, 2008). The five digits following the N denotes NSA Monterey and includes the special areas associated with NSA Monterey (DoN, 2018). For identification of special areas, there are additional letters after the five digits to identify property records associated with these special areas. For example, special area Beach Lab UIC is N61014-BL (DoN, 2018). Figure 8 shows the data after execution of the query in iNFADS for UIC N61014.



Installation UIC	Oper Status Code	Installation/Special Area Name	Site Code	Site Name	Prop Num	Facility Name	Facility Number	Fac Type Code	Action Type Code	S Ar
N61014										
N61014	ACT	NAVSUPPACT MONTEREY CA	N61014	NAVSUPPACT MONTERE	180006	COAST GUARD		1	1	
N61014	ACT	NAVSUPPACT MONTEREY CA	N61014	NAVSUPPACT MONTERE	100002	RESM ITEM 3 DTD 07JUN20		1	2	
N61014	ACT	NAVSUPPACT MONTEREY CA	N61014	NAVSUPPACT MONTERE	100001	RESM ITEM 2A DTD 7JUN20		1	3	
N61014	ACT	NAVSUPPACT MONTEREY CA	N61014	NAVSUPPACT MONTERE	203658	PUBLIC WORKS SHOPS BL	427	2	1	
N61014	ACT	NAVSUPPACT MONTEREY CA	N61014	NAVSUPPACT MONTERE	203126	CEE SERVER ROOM	286	2	1	
N61014	ACT	NAVSUPPACT MONTEREY CA	N61014	NAVSUPPACT MONTERE	203116	SOFTBALL FIELD	262	3	1	
N61014	ACT	NAVSUPPACT MONTEREY CA	N61014	NAVSUPPACT MONTERE	203349	SANITARY SEWER	203349	4	1	
N61014	ACT	NAVSUPPACT MONTEREY CA	N61014	NAVSUPPACT MONTERE	203348	STORM SEWER	203348	3	1	
N61014	ACT	NAVSUPPACT MONTEREY CA	N61014	NAVSUPPACT MONTERE	200020	SLOAT GATE HOUSE-SOUT	248	2	1	
N61014	ACT	NAVSUPPACT MONTEREY CA	N61014	NAVSUPPACT MONTERE	203656	NAVY EXCHANGE COMPLE	303	2	1	
N61014	ACT	NAVSUPPACT MONTEREY CA	N61014	NAVSUPPACT MONTERE	203347	STEAM SUPPLY SYSTEM	STNSA	4	1	
N61014	ACT	NAVSUPPACT MONTEREY CA	N61014	NAVSUPPACT MONTERE	201044	M O Q	265	2	5	
N61014	ACT	NAVSUPPACT MONTEREY CA	N61014	NAVSUPPACT MONTERE	203340	ROAD UNSURF GRAVEL AI	203340	3	1	
N61014	ACT	NAVSUPPACT MONTEREY CA	N61014	NAVSUPPACT MONTERE	200025	CANOPY @ HAZMAT STOR	440	3	1	
N61014	ACT	NAVSUPPACT MONTEREY CA	N61014	NAVSUPPACT MONTERE	201048	NPS ADMIN SUPPORT, COT	277	2	1	

Screenshot from iNFADS Facilities.

Figure 8. iNFADS Executed Query for NSA Monterey

2. Verification and Validation of Real Property Records

After real property records data is collected from iNFADS and converted into an Excel file, evaluation on the existence of facilities commences. The approach was to survey all Class II assets inside the perimeter of NSA Monterey and included under the UIC N61014. Existence and completeness are achieved by conducting a 100% physical inventory of NSA Monterey real property assets.

Existence of facility real property records was conducted by verifying that all assets recorded in iNFADS exist with 100% visual confirmation of all assets. After existence was verified, the completeness of the iNFADS database was conducted to assess if all assets identified during the existence phase were recorded in the iNFADS. Misstatements are separated into two categories; one category accounts for existing facilities not recorded in the database, and the second category accounts for nonexisting facilities recorded in the database. An updated list of facility real property records for NSA Monterey was generated, and the new FSM allocation for the installation was calculated. This section presented the methodology for existence and completeness and the process for identifying any misreporting present. The next section describes the FSM calculation to forecast the sustainment cost for NSA Monterey.

C. CALCULATION OF THE FACILITY SUSTAINMENT MODEL

The updated real property records inventory list serves as the foundation for the calculation of the FSM allocation. The FSM was calculated using the DoD Facilities Pricing Guide (2018c) with the use of equation (1).

$$\text{Sustainment Requirement (SR)} = Q * SUC * SACF * I \quad (1)$$

The value of factor Q is required for the calculation of the FSM as the model builds its allocation based on Q as the unit of measure. For existing real property facilities not present in the database, DoD Facilities Pricing Guide (2018c) is the source to calculate factor Q. First, the primary purpose of the facility is determined. Second, the DOD FAC Code is identified which aligns with the primary use of the facility. Third, the unit of measure associated with the DoD FAC Code is selected. The next step is to calculate the number of units for the specified unit of measure from the selected DoD FAC Code. Examples of

units of measure are square feet, to square yards, to gallons, or to the number of units. The last step is the calculation of additional factors such as SUC, SACF, and I with the use of DoD Facilities Pricing Guide (2018c).

Furthermore, there are two additional factors needed to calculate the FSM for unique facilities. The monumental facility adjustment is used for historic facilities (R&K Solutions, 2018). The monumental facility factor is 2.01, and it is required for some facilities in NSA Monterey, such as Herrmann Hall B220 (R&K Solutions, 2018). The second factor is increased security with a value of 1.2. NSA Monterey does not contain facilities with this requirement (R&K Solutions, 2018). All factors are then multiplied for each facility, and the aggregate of all existing facilities determines the new FSM allocation for NSA Monterey. Figure 9 contains an example of the FSM calculation for NSA Monterey.

FACILITY_NAME	FACILITY_TYPE_CODE	DOD_FAC_CODE	AREA	AREA_UNIT_MEASURE_CODE	Q iNFADS	iNFADS Measurement Unit	SUC	SAC	I	Historica	FSM
CEE SERVER ROOM	2	1311	252	SF	252	SF	4.28	1.32	1.0190	1	$ 1,450.75
SLOAT GATE HOUSE-SOUTH	2	1498	110	SF	110	SF	4.22	1.32	1.0190	1	$ 624.39
PASS & VEHICLE REGISTRATION	2	1498	341	SF	341	SF	4.22	1.32	1.0190	1	$ 1,935.60
SLOAT GATE HOUSE-NORTH	2	1498	49	SF	49	SF	4.22	1.32	1.0190	1	$ 278.14
DEL MONTE GATE HOUSE	2	1498	110	SF	110	SF	4.22	1.32	1.0190	1	$ 624.39
SPANAGEL HALL	2	1711	209079	SF	209079	SF	5.45	1.32	1.0190	1	$ 1,532,692.50
BULLARD HALL	2	1711	34936	SF	34936	SF	5.45	1.32	1.0190	1	$ 256,104.85
ROOT HALL	2	1711	70947	SF	70947	SF	5.45	1.32	1.0190	1	$ 520,090.18
WATKINS HALL EXTENSION	2	1711	22338	SF	22338	SF	5.45	1.32	1.0190	1	$ 163,752.86
CENTER FOR CIVILIAN MILITARY RELATIONS	2	1711	18244	SF	18244	SF	5.45	1.32	1.0190	1	$ 133,741.04
GLASGOW HALL	2	1711	112219	SF	112219	SF	5.45	1.32	1.0190	1	$ 822,642.25
GLASGOW HALL WEST	2	1711	8110	SF	8110	SF	5.45	1.32	1.0190	1	$ 59,451.86
GLASGOW HALL EAST	2	1711	35455	SF	35455	SF	5.45	1.32	1.0190	1	$ 259,909.47
REED HALL	2	1711	12826	SF	12826	SF	5.45	1.32	1.0190	1	$ 94,023.38
INGERSOLL HALL	2	1711	82750	SF	82750	SF	5.45	1.32	1.0190	1	$ 606,614.27
DUDLEY KNOX LIBRARY	2	1711	93070	SF	93070	SF	5.45	1.32	1.0190	1	$ 682,266.95
HALLIGAN HALL	2	1712	92840	SF	92840	SF	4.62	1.32	1.0190	1	$ 576,932.79
WATKINS HALL	2	1712	63689	SF	63689	SF	4.62	1.32	1.0190	1	$ 395,780.62
PUBLIC WORKS SHOPS BUILDING	2	2191	15831	SF	15831	SF	5.38	1.32	1.0190	1	$ 114,561.51
PAINT BUILDING	2	2191	1600	SF	1600	SF	5.38	1.32	1.0190	1	$ 11,578.45
ACADEMIC GENERAL STORAGE	2	4421	504	SF	504	SF	2.78	1.32	1.0190	1	$ 1,884.62
ACADEMIC GENERAL STORAGE	2	4421	252	SF	252	SF	2.78	1.32	1.0190	1	$ 942.31
GENERAL WAREHOUSE SUPPLY	2	4421	8262	SF	8262	SF	2.78	1.32	1.0190	1	$ 30,894.28
SCOREBOARD BLDG - SOFTBL FLD	2	4421	49	SF	49	SF	2.78	1.32	1.0190	1	$ 183.23
BALL FIELD CONCESSION	2	4421	288	SF	288	SF	2.78	1.32	1.0190	1	$ 1,076.92
BALL FIELD EQUIPMENT STORAGE	2	4421	500	SF	500	SF	2.78	1.32	1.0190	1	$ 1,869.66
CHLORINE STORAGE	2	4423	36	SF	36	SF	5.07	1.32	1.0190	1	$ 245.50
HAZARDOUS GAS STORAGE	2	4423	176	SF	176	SF	5.07	1.32	1.0190	1	$ 1,200.24
NSAM HEADQUARTERS	2	6100	3918	SF	3918	SF	4.06	1.32	1.0190	2.02	$ 43,220.52

Screenshot from Excel during the FSM calculation.

Figure 9. FSM Calculation for NSA Monterey

D. SUMMARY

Chapter III provided the methodology to conduct the existence and completeness verification, followed by the calculation of the FSM forecast for NSA Monterey. The FSM was calculated before and after the review of completeness and existence verification to determine the change in allocation for NSA Monterey. The next chapter is focused on the analysis and findings from the research about existence and completeness and the impact on the FSM forecasts.

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IV. ANALYSIS

A. INTRODUCTION

This chapter provides the results from the review of policies and procedures pertaining to recording facility real property records data in internet Navy Facility Assets Data Store (iNFADS) and the calculation of the Facility Sustainment Model (FSM). The iNFADS database was analyzed for existence and completeness of facilities property records for Naval Support Activity Monterey (NSA Monterey). After completion of the analysis for existence and completeness for facility real property records, the FSM was used to calculate the impact of misreporting the sustainment projection allocation to NSA Monterey. Next, any potential implications of the findings are addressed. Finally, recommendations based on the analysis of policies and procedures, existence and completeness, and FSM calculation are presented.

B. ANALYSIS OF POLICIES

The keeping of real property records in iNFADS must comply with policies and guidance written and promulgated by the OSD, the DoD, the DoN, and the other components, including studies. The existence and completeness verification for NSA Monterey used the policies presented in Table 1. The DoD has recently updated some of its policies, as presented in Table 1, in its pursuit to improve fiscal transparency as mandated by Congress with the use of Financial Improvement and Audit Readiness (FIAR) guidance. One important finding is the change in valuation to record the real property assets. DoD (2016b) set reporting thresholds for real property assessed at $20,000 from October 2007 to September 2013. There was a change promulgated by the director of Acquisition Resources and Analysis to increase the capitalization threshold from $20,000 to $250,000 for facilities placed in the database after October 1, 2013 (Spruill & Easton, 2013). Currently under review is the Real Property Accounting Interim Guidance: Accountability Threshold and Prefabricated Structures which sets the minimum value of $15,000 to financially account for facility real property assets (C. Douglas, personal communication, October 25, 2018). The change in policy during a short period created

confusion from 2007 to 2013, and the proposed change needs to be promulgated throughout the DoN to eliminate the opportunity for misreporting of facility real property records (GAO, 2018b). Policies must continue to be updated to capture the changes started by the enactment of the FIAR guidance and subsequent DoD instructions.

Table 1. Policies Used to Record Real Property Records

Policy	Policy Title	Publication Date
P-78	Real Property Inventory (RPI) Procedure Manual	July 2008
OPNAVINST 11010.20H	Naval Facilities Projects	June 2015
Executive Order 13327	Federal Real Property Asset Management	February 2004
DoDDIR 4165.06	Real Property	November 2008
DoDINST 4165.3	DoD Facility Classes and Construction Categories	October 2017
DoDINST 4165.14	Real Property Inventory (RPI) and Forecasting	November 2017
DoDINST 4165.70	Real Property Management	April 2005
DoDINST 7000.14-R	DoD Financial Management Policy and Procedures Manual, Property, Plant and Equipment (Volume 4, Chapter 6)	June 2009
FMR Part 102-84	Annual Real Property Inventory	January 2017
Memorandum, Office of Secretary of Defense	Elimination of Military Equipment Definition and Increase to Capitalization Thresholds for General Property, Plant, and Equipment	September 2017
UFC 2-201-05N	Unified Facilities Criteria (UFC) Facility Planning Criteria For Navy/Marine Corps Shore Installations	Continuous
UFC 3-701-01	DoD Facilities Pricing Guide	Continuous
R&K Solutions	User Manual DoD Facilities Sustainment Model Version 20 (FY2020–2025)	Yearly

The P-78 Real Property Inventory (RPI) Procedure Manual establishes the reporting requirements for each real property category, including the real property records cards, which are recorded in iNFADS, through the use of form DD-1354 Transfer and Acceptance of Military Real Property (NAVFAC, 2008). DoD (2017c) contains responsibilities and procedures to supplement instruction DoD (2017a). NAVFAC (2008) defines maintenance, which is funded with the FSM allocation for the upkeep of the facility to fulfill mission requirements. DoD Facilities Pricing Guide (2018c) defines factors to calculate the FSM allocation for each facility. The following section presents analyses of the existence and completeness of facility real property records for NSA Monterey.

C. EXISTENCE AND COMPLETENESS

The method utilized for this research was to conduct a 100% visual verification of all facilities and compare the visual verification approach with the iNFADS database for NSA Monterey. Figure 10 contains the map used to validate the existence and completeness of the iNFADS database, by dividing the installation into a grip pattern of a 100 squares as the means to ensure 100% accountability of all existing assets.

Figure 10. Naval Support Activity Monterey Grid Map. Adapted from Public Works Department Monterey (personal communication, October 15, 2018).

The survey found 173 facilities and also found discrepancies in the reporting on Class II for type II, type III, and type IV facility real property records. Some of the discrepancies found were existing facilities with no property record, the incorrect name for a facility with the correct purpose, one facility being used for a different purpose, and one utility record incorrectly associated with NSA Monterey UIC. All records present in the iNFADS database reference an existing facility, and the database did not reflect the presence of property records without an associated physical asset. The existence and completeness identified 14 facilities out of 187 total facilities without a property record in iNFADS. Table 2 shows all of the assets not found on the iNFADS database. Table 3 shows inaccurate property records due to issues related from name discrepancy and primary use of the facility.

Table 2. Incomplete Property Records

FAC	FAC Title	Type	UM	Use
1443	Operations Supply Building	Type II	SF	Storage area add to building 349 - supply
4422	Covered Storage Shed, Installation	Type II	SF	Covered storage shed for electrical distribution panel
8211	Steam Production Plant Bldg 236	Type II	SF	Storage area add to building 236 - boiler house
8926	Hazardous Waste Storage Or Disposal Facility	Type III	EA	Solid waste disposal & distribution facility
7384	Personnel/Equipment Shelter	Type III	SF	Bike rack (6 units)
7384	Personnel/Equipment Shelter	Type III	SF	Shelter gazebo (6 units)

Table 3. Incorrect Property Records

FAC	Facility Title	Type	UM	Issue
7531	Pavilion Building 253	Type III	SF	Multi-use pavilion change in use of building 253
8131	Electrical Unit Substation 235	Type IV	KW	Two property records with the same name, one needs to change to electrical substation building 223

1. Type II Property Analysis and Findings

The physical survey revealed three discrepancies related to type II real property records missing from iNFADS. The first discrepancy entails two structures located beside building 349 with the primary use of supply warehouse, FAC 1443. These two facilities add square foot (SF) area to building 349, but their associated areas are not recorded on the property record for building 349. The second discrepancy is the building adjacent to building 236 with the primary purpose as a boiler house. The adjacent building is used in support of building 236, and as such, the SF area needs to be counted on the property record for building 236, FAC 8211. The third discrepancy is the storage shed containing an electrical distribution panel associated with the housing complex, FAC 4211.

2. Type III Property Analysis and Findings

Type III assets represent the majority of missing property records for NSA Monterey. The physical survey found 14 total discrepancies. The survey found 12 discrepancies identified as bike racks or shelters around the installation not accounted for in the iNFADS database. Also, not present in the property records is the concrete pad used as an unloading disposal facility located near building 426, FAC 8926. The last discrepancy of Type III real property records is the tennis court building 235. The primary purpose is not accurate, and the current use of the facility could be considered as a pavilion, FAC 7531.

3. Type IV Property Analysis and Findings

Type IV assets contain two discrepancies. The property record for water well 5B incorrectly states its location in NSA Monterey and needs to be removed from NSA Monterey main site property. Water well 5B needs to be accounted for in the special area associated with the golf course UIC N61014-GC. Additionally, there is a discrepancy with the name electrical unit substation 235, property record number USUB223. The property record name needs to change to electrical substation 223. The property record values for the facility are correct; only the name is incorrect.

After completion of the existence and completeness of real property records for NSA Monterey, the FSM was calculated prior to and after the completeness and existence verification. The next section presents the results of the FSM calculation and corrections in the iNFADS databse from the existence & completeness verification. The objective was to determine the impact of the FSM to the installation's forecasted budget for repair and sustainment of facilities.

D. FACILITY SUSTAINMENT MODEL CALCULATION

The FSM calculation led to two findings. The first finding is various errors with the unit of measurement with four facility real property records. Table 4 presents the issues with the unit of measure as it deviates from the unit of measure referenced in DoD Facilities Pricing Guide (2018c).

Table 4. Property Records with Inaccurate Measurement Unit

Facility title	Type	Q iNFADS	INFADS measurement units	Correct measurement units	Q
Roman plunge reflection pool	III	7200	SF	EA	1
Non potable wtr ps 295	III	315	SF	KG	18
Hazardous waste storage transfer facility	III	1900	SF	EA	1
Transformers 5kv main base	IV	216	SF	KV	216

The second finding was the failure of iNFADS during the export function within iNFADS to covert the data to an Excel file for manipulation and calculation of the FSM for NSA Monterey. This failure created a list of 42 facility real property records missing the value of quantity and/or the unit of measure, even if the data was complete and accurate in iNFADS. The issue led to manual verification of each facility property record in iNFADS for the value of Q and the unit of measure. After the completion of corrections, the FSM calculation was performed before the existence and completeness verification, and its calculated value in fiscal year (FY) 2018 dollars was $12,567,070.01.

The existence and completeness verification presented 18 errors divided into two groups: 14 records not present in the database and four records with incorrect units of measure. The FSM calculation for these facilities increased the value of the FSM by $14,458.75 (.1149%) in FY2018 dollars. The total forecasted value after completeness, existence, and correction for the FSM in FY2018 dollars was $12,581,528.76. Table 5 illustrates the FSM prior to and after existence and completeness verification.

Table 5. FSM Comparison in FY2018 Dollars

Event	Cost in FY2018 dollars
FSM Prior	$12,567,070.01
FSM After	$12,581,528.76
Change in FSM	$14,458.75

This section presented the finding of existence and completeness and its associated effect on the FSM calculation for the NSA Monterey. The next section provides a review of the research questions and implications of findings.

E. IMPLICATIONS OF FINDINGS RELATED TO THE RESEARCH QUESTIONS

The objectives of this research study were to answer the questions through the analysis of policy and procedures, and to determine the existence and completeness of real property records data as well as the calculation of the FSM for NSA Monterey. This section addresses the research questions and the answers to the research questions.

1. What Are the Internal Policies by Office of the Secretary of Defense (OSD), Commander, Navy Installations Command (CNIC), and Naval Facilities Engineering Command (NAVFAC) for Reporting Real Property Records Data at Naval Support Activity Monterey?

The DoN follows policies and procedures set forward by the DoD. Some of the policies have not been updated during the last ten years, and changes are not captured on all policies as the DoD continues to move towards financial transparency. The DoN and the DoD are currently undergoing a review of policies and procedures to streamline instructions and ease the burden of facility real property recording with the goal of reducing the possibility of misinterpretation. The objective for the DoD is the improvement of internal controls and processes for personnel to identify the means and the methods to correctly record facility real property record in iNFADS as one of the important tools to achieve a qualified audit opinion. The objective aligns with the Auditability Triangle in Chapter II, Figure 1. The auditability triangle promotes the concept of trained employees, with well-defined processes, which are enforced, to foster the environment of being

auditable and eventually be able to obtain an unqualified audit opinion. The process to update policies needs to be streamlined in order to capture all changes pursued by the DoD in response to Financial Improvement and Audit Readiness (FIAR) guidance. The review of all policies and procedures led to the conclusion that NSA Monterey is following policies and procedures to accurately record facility real property records. The findings from the existence and completeness verification found a disconnect that is present from the creation of the form DD-1354 for the facility to the input of the information into the iNFADS database.

2. For Which Internet Navy Facility Assets Data Store (iNFADS) Records Are There No Existing Real Property?

The existence verification for NSA Monterey revealed that all records recorded in iNFADS have existing real property. NSA Monterey has undergone a comprehensive effort to remove records with no physical assets.

3. For Which Real Properties Are There No Existing iNFADS Records?

The completeness verification revealed 14 of 187 facilities or 7% of unaccounted facilities at NSA Monterey. Of the 14 facilities shown in Table 2, two facilities real property records need updates to account for the increase in area associated with the primary facility. The first record is the boiler house storage building—the metal structure area is not accounted for on the main property record for the boiler house. The second record is the addition of supply warehouse storage in support of the supply warehouse—the storage buildings are not accounted for as an addition in the supply warehouse facility property record area. The remaining 12 facilities are not directly tied to an existing structure and also did not possess a property record in iNFADS.

4. What Is the Impact to the FSM Allocation to NSA Monterey and on Audit Readiness if Errors Are Present in the Database?

The impact of the FSM can be categorized into two elements. The first element is the FSM forecast allocation increase for NSA Monterey due to inaccuracies. The second element is the unreliability of the data to accurately state the status of facilities in DoN.

a. NSA Monterey

The calculation of the FSM for NSA Monterey had a small effect in the overall calculation of the FSM as the value of the change was an increase of $14,458.75 (.1149%). The presence of 18 facilities with discrepancies presented a small value for the overall FSM calculation and, in this specific case, did not generate a substantial impact in the FSM forecast. Accurate real property records will be reflected in the DoN and DoD consolidated balance sheet, illustrating the correct amount of owned assets and their associated values. The inaccuracy of iNFADS was identified by GAO (2018b), and the findings of this research study support GAO (2018b) findings with another installation with the same outcome. NSA Monterey has conducted a great effort to update facility property records and continues to correct discrepancies as they arise.

b. Audit Readiness

Audit readiness presents the most significant challenge due to findings during the FSM calculation. Calculation of the FSM presented challenges due to reporting generated by iNFADS. During the process of exporting data, iNFADS did not transfer all the data from the database to Excel when using the export function within iNFADS. This creates a list of 42 facility property records missing the value of quantity and/or unit of measure. The data for these 42 facilities was complete and accurate in iNFADS. The export function was not accurately capturing and exporting the data for further processing on Excel. Replications of the process provided the same results for the 42 facilities and the inability to export the data for these facilities to Excel. This means 24%—or 42—of 173 facilities were not correctly exported from iNFADS to excel.

The database iNFADS is used by a myriad of systems as illustrated in Figure 6 in Chapter II. The inability of iNFADS to retrieve certain property records led the researcher to question whether this issue was repeatable with other installations. The result from the query of data from two other installations led to the same issue. The query of data was conducted first for Seal Beach N61065 and the second was Point Loma N63406. The Seal Beach query reported on 827 facility property records, and of those, 344 had no quantity or unit of measure. Point Loma reported 918 facility property records, with 186 records

with no quantity of unit of measure. The iNFADS database is not able to export all the information ranging from 41% of records from Seal Beach and 22% for Point Loma. After the random review of some facility real property records for both installations with no stated value of quantity value or unit of measure, the conclusion was the same as with NSA Monterey. The iNFADS database holds the data, and during the export of such data, the elements for quantity and unit of measure are not exported for certain facilities. This raises the possibility that other systems may be unable to obtain all the data from iNFADS to accurately report on the task for which the system was created. Also, there is the possible impact on the financial statements for the DoN if data is not being correctly queried from iNFADS. The results signal the reason for the existence of errata in the first step illustrated in Figure 5, Simplified FSM Data Processing, located in Chapter 2. The existence of errata validates why the DoN cannot obtain a qualified audit opinion due to the unreliability of data.

Policies and procedure updates are needed to include changes from FIAR. Policies and procedures need to be concise and swiftly pushed throughout the DoD and DoN. NSA Monterey has conducted an extensive effort to clean iNFADS of nonexistent facilities. The presence of existing facilities not recorded indicate that efforts are needed to fix the database. The analysis of the FSM forecast tool demonstrated a small change in the projection of sustainment funds. One additional important finding from this research is the unreliability of the export function within iNFADS and its possible impact to the DoN. The next section provides recommendations based on the research findings.

F. RECOMMENDATIONS BASED ON RESEARCH FINDINGS

The recommendation based on the research findings for the three aspects of this research projects are presented in this section. First, the policies and procedures used to record assets are discussed. Second, the existence and completeness of the iNFADS database are addressed. Third, the FSM calculation is covered.

1. Policies and Procedures

The DoD and the DoN are working to improve policies and procedures to streamline the process of accurately recording data in iNFADS. Some policies have not

been updated for the past ten years. The delay in updates signals the need to improve the process to capture changes implemented by other policies limiting the ability of personnel using the policies to misinterpret the changes from old policy to new policy.

The DoN should continue to use its current methodology to record facility real property assets in the iNFADS database. The issue encountered during this research is connected to the accuracy of the information contained within Form DD-1354 to record the asset in iNFADS. This conclusion is from the findings of four facility real property records with incorrect units of measure. The second finding is the presence of unaccounted facilities without an associated property record in iNFADS.

There could be many reasons for the facilities not to have a property record in the system, including the following: no DD-1354 Transfer and Acceptance of Military Real Property was created to record the construction, the created DD-1354 was not delivered to the appropriate person for recording, or the DD-1354 never entered in the system. Solving this problem requires a two-prong approach. First, the person in charge of the construction must understand the importance of collecting accurate DD-1354 from contractors for the recording of facility real property assets in iNFADS. The second is to establish better coordination from construction to facility real property asset recording after construction and reduce the possibility of not recording the asset in the correct period.

The first recommendation is that DoN needs to improve the process to review and update policies and procedures with the creating of policy and procedure teams to capture changes and provide a swift policy change to all outdated policies and procedures. The second recommendation is that DoN needs to provide training to personnel in charge of construction to enforce the proper information as transcribed into the DD-1354 Transfer and Acceptance of Military Real Property. The third recommendation is that when DoD sets a dollar threshold for the recording of real property that a policy change should only apply to future transactions with the objective of reducing errors through simplifying the process.

2. Completeness and Existence

The DoD and the DoN continue to improve the reliability of their data. This effort requires manpower to validate the existence and completeness of the iNFADS database. This effort is currently undertaken by NAVFAC in FY2019. It requires knowledgeable and trained individuals to accurately assess all facilities and property records in existence and present in the database.

The first recommendation is for DoN to include all hands at every Public Works Department to assess the completeness and existence of iNFADS. A second recommendation is for every Public Works Department to establish a board and evaluate discrepancies in property records before being corrected or entered in the iNFADS database.

Specific recommendations for NSA Monterey are for corrections to be made for square feet area (SF) discrepancies and to increase the value of SF area associated with the main facility to account for the areas to accurately reflect the maintenance allocation projection. In addition, property records need to be created in iNFADS to reflect the existence of bike racks and gazebos if the assets are financially reportable. Finally, the tennis court property records should be corrected to reflect its current purpose.

3. FSM Calculation

The FSM represents the biggest challenge for the DoN and the DoD as the presence of errata signals the unreliability of the iNFADS database and its impact on FSM to accurately calculate the projection for DoN sustainment funding. The unreliability of data has the potential to influence other systems using the iNFADS data. This can create the environment for a ripple effect in other systems or the creation of separate systems to manage unreliability, thus negatively influencing the auditability of the DoN due to data quality. The recommendation is for NAVFAC to analyze what systems are capturing incomplete data and also what is creating the discrepancies in iNFADS to export some records accurately while other records are not exported accurately.

G. SUMMARY

In this chapter, the results of the analysis were discussed for the three aspects: policies and procedures to record assets; the existence and completeness of the iNFADS database for NSA Monterey; and the FSM calculation for NSA Monterey. The results identified policies and procedures which created confusion during the transition from one policy to a new policy. The FSM calculation prior to and after the existence and completeness verification led to the identification of an increase of $14,458.75 in the FSM projection for NSA Monterey. Finally, recommendations were presented from the analysis and findings of the research. The next chapter will discuss the summary, conclusions, and areas for further research.

V. SUMMARY, CONCLUSIONS, AND AREAS FOR FURTHER RESEARCH

Facility property records are reflected in the Department of Navy (DoN), Department of Defense (DoD), and federal government's financial statements (FASAB, 1995). The DoN accounts for approximately 27% of the plant replacement value (PRV) of assets reported in DoD financial statements (DoD, 2018b). In 2017, independent auditors reported material weaknesses in real property records data for the DoN due to insufficient internal controls (GAO, 2018b). The DoN needs to determine the completeness and existence of all 61,368 buildings, 33,688 structures, and 16,881 linear structures for a total of 111,937 assets worldwide valued at $238.50 billion as of FY2017 (DoD, 2018b). Naval Support Activity Monterey (NSA Monterey) is a small installation not immune to discrepancies in the reporting of facility real property records. The objectives of this research study were to examine policies and procedures for recording assets in iNFADS, to examine real property records located in iNFADS for completeness and existence, and to determine the impact of recorded discrepancies on the FSM allocation for repairs and maintenance of facilities at NSA Monterey.

A. CONCLUSIONS

The contiguous areas occupied by NSA Monterey are small. More importantly, NSA Monterey has made corrections to its database to eliminate any record for non-existing facilities. The area occupied did not make the installation immune to discrepancies in reporting real property records for 173 facilities. This research study analyzed all existing structures at NSA Monterey. If the structures meet the threshold to be financially accountable, then NAVFAC should make the corrections after asset valuation is completed. The existence verification revealed 100% accuracy. The completeness verification identified 18 out of 187, or 10% of facility records needing some form of correction to properly account for all assets present at the installation. This is comparable to the GAO (2018b) study with a sample size of 40 facilities that found 4, or 10% of facility records requiring some form of correction. All facilities in the iNFADS database have a physical facility, and discrepancies present were with unrecorded facilities, facilities not using the

correct unit of measure, the primary use of the facility, or naming of the facility. The FSM calculation showed a slight increase in forecasted sustainment cost for the installation. This knowledge could help the installation commander understand the risk associated with the execution of sustainment funding towards the maintenance of facilities in the short-term and long-term.

B. AREAS OF FURTHER RESEARCH

Multiple programs query iNFADS data and create financial reports and other reports in support of the DoD, as illustrated in Figure 6. Many of the programs are written using a different programming language, and as such, it presents the opportunity for data corruption as one program queries data iNFADS and exports data for further processing. If the DoD wants to continue using multiple sources to query the data from iNFADS, one area of further research is to conduct an analysis of errors introduced due to the programming language in the financial reporting. Another area for further research is to conduct a study to determine what is creating the inability of iNFADS to export its data accurately and what is the impact on other systems due to its inability to export accurate data.

APPENDIX

A. INTERNET NAVY FACILITY ASSETS DATA STORE (INFADS) ANALYSIS

The process to verify existence and completeness of NSA Monterey iNFADS database requires the following steps towards validating the data and later calculating the respective FSM allocation for the installation. Retrieval of facility property records data from iNFADS requires a methodical approach to collect and analyze the data to meet the objectives of this study.

1. iNFADS Database

- First, open the iNFADS Module located in the NAVFAC Portal etools section at https://hub.navfac.navy.mil/webcenter/portal/Support/eTools

- Second, open the Facilities module by selecting Facilities. The Facilities module holds the real property data for all facilities (building, structure, utility, and land) owned or leased by the DoN. Some of the data includes facility location, PRV, size, and numerous other fields that support other processes. Figure 11 shows the main screen after selecting the iNFADS module.

Figure 11. Screenshot from iNFADS Database Initial Screen

- The third step is to write the UIC. The UIC is a unique installation identifier. The UIC for NSA Monterey is N61014. The N refers to Navy-owned facilities (NAVFAC, 2008). The five digits following the N denotes NSA Monterey and the special areas associated with NSA Monterey (NAVFAC, 2008). For identification of special areas, there could be additional letters after the five-digit number to accurately identify property records associated with the special area (NAVFAC, 2008). Write the UIC inside the block UIC to retrieve all the records associated with the installation. Select the query button to run the report. Figure 11 shows the initial screen after UIC input and before executing the query. Figure 12 shows the data after execution of the query in iNFADS.

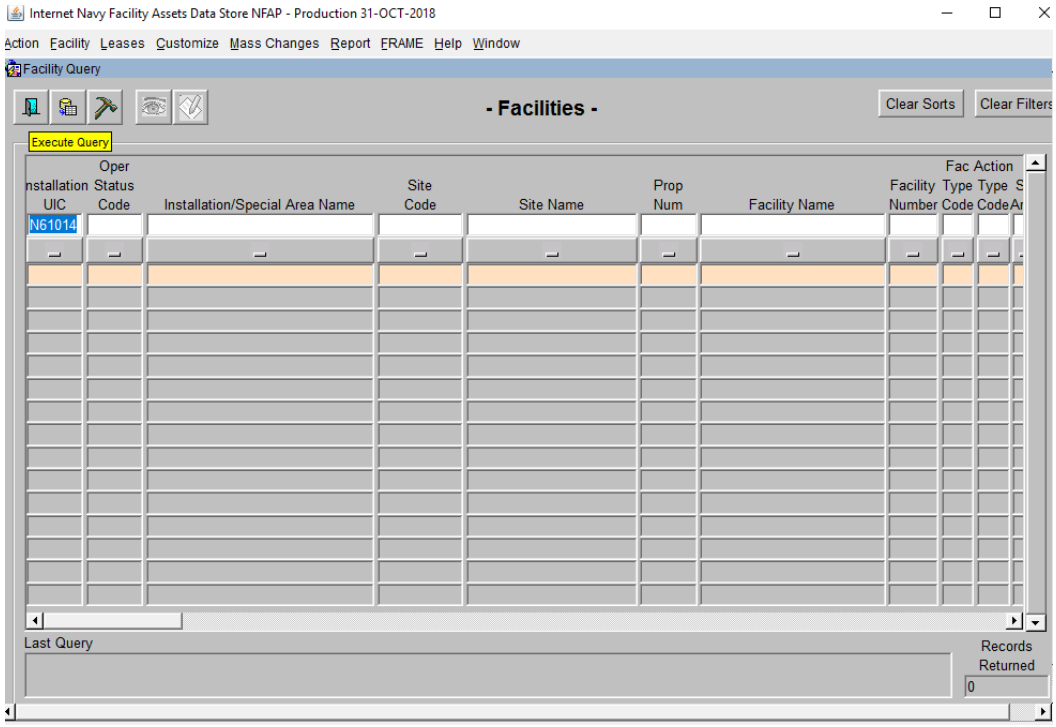

Figure 12. iNFADS Screen with UIC

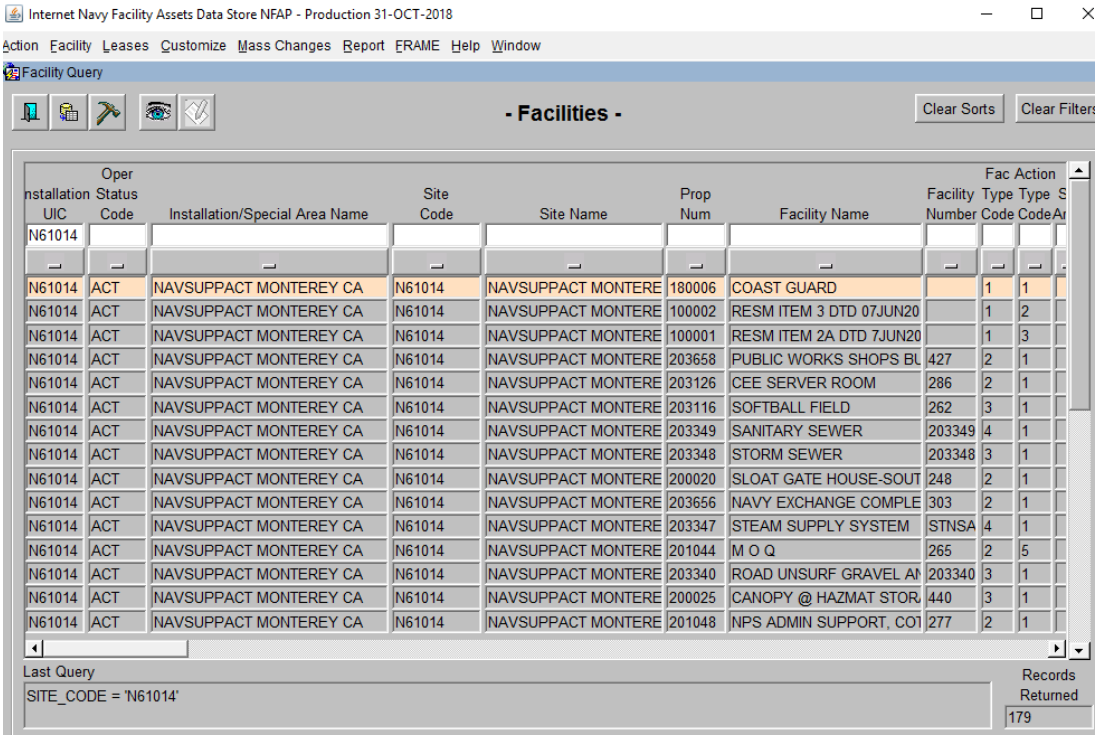

Figure 13. Executed Query Screen Capture from iNFADS

- The fourth step is to download the query and open the query in Microsoft Excel for further analysis.

2. Using Excel to Query and Manage the Data

- Open file in Excel and create a filter using the filters option for all columns.
- Select Facility Type Code and sort with the filter option from smallest to largest.
- Once the data is sorted, de-select all and select the number two on the column named Facility Type Code.
- Now all the data required to conduct a review of the database is ready for the process of physical validation of existence and completeness.
- Database columns needed cells to include: Activity Name, Property No, Facility Name, Facility No, Facility Type Code, DoD FAC Code, Area, Area Unit Measure Code, Real Property Unique ID.
- The result is Class 2 Real Property Data for the installation, which will be used to determine 100% completeness and existence of real property at NSA Monterey.

B. EXISTENCE AND COMPLETENESS

- The existence of facilities will be conducted using a grid pattern approach overlaid over NSA Monterey. The objective is to methodically search for all Class II assets inside the perimeter of the base and included in the UIC of NSA Monterey. Existence will be conducted by evaluating the database and all existing facilities by conducting a 100% physical inventory of NSA Monterey.
- If present, identify missing inventory of facility property records.

- Validate data from the existence and completeness effort and create a database containing the missing facilities. For facilities not present in iNFADS, additional steps are required to assign a dollar value as the means to calculate the FSM for the facility. This process is further explained in the next section.

The following steps provide the means to assign a cost for the facility not included in the iNFADS database. The objective is to use the information from the existence and completeness verification and calculate the new FSM allocation.

- Facility Type Code—Use UFC 3.7001.01.C1.2018 Data Tables for classification of the facility. Depending on the primary use of the facility, a corresponding code is referenced in the database.

- DoD FAC Code—Use UFC 3.7001.01.C1.2018 Data Tables for classification of the facility. Depending on the primary use of the facility, a corresponding code is referenced in the database.

- Area Unit Measure Code—Use UFC 3.7001.01.C1.2008 Data Tables to assign the correct measurement unit with regards to the unique DoD FAC Code and Facility Type Code.

- Area—Calculate area by physical measurement with the use of drawing dimensions if available. The unit of measure shall be the same as a reference for the selected DoD FAC Code and Area Unit Measure Code.

C. CALCULATION OF THE FSM

1. Calculate the Sustainment Requirement for each facility and then combine all costs to determine the installation FSM allocation using the equation. FSM is calculated using the most up-to-date iNFADS. This calculation creates the baseline for the FSM. For these facilities, validation of the following factors are required: Facility Type Code, DoD FAC Code, Area, Area Unit Measure Code.

$$SR = Q \times SUC \times SACF \times I$$

2. If misreporting is present, calculate the new Sustainment Requirement for each facility and then combine all costs to determine the installation FSM allocation using the equation

$$SR = Q \times SUC \times SACF \times I$$

- Addition of data for the existing and not reported facilities. For these facilities, calculation of the following factors is required: Facility Type Code, DoD FAC Code, Area, Area Unit Measure Code.
- Subtract data for non-existing but reported facilities.

3. Compare Sustainment Requirement

- Evaluate changes, if present, of the FSM calculation between before and after verification of the existence and completeness of property records for NSA Monterey.
- Determine any difference if present and identify properties missing during the existence and completeness verification.

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