SUBJECT **CYCLED PHYSICAL INVENTORY OF REAL PROPERTY ASSETS**

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PURPOSE

This work instruction provides guidance in accomplishing real property physical inventories for National Aeronautics and Space Administration (NASA) owned real property assets located on Kennedy Space Center (KSC) and Cape Canaveral Space Force Station (CCSFS). Periodic physical asset verification is an important part of the inventory management practice and acts as part of KSC's record reconciliation process.

SCOPE AND APPLICABILITY

Real property assets subject to physical inventory are those owned by KSC. Physical real property inventory verification is required every three years per NASA document NPR 8800.15, Real Estate Management Program Procedural Requirement. Real Property assets that are inventoried include buildings, facilities and real property installed equipment (RPIE), sometimes referred to as collateral equipment. Under the Base Operations and Spaceport Services (BOSS) contract, the BOSS Real Property Office is responsible for conducting triennial inventories of accountable assets that are located at KSC and CCSFS.

PROCESS

A schedule of facilities due for inventory will be developed based on the area where the facility is located and the last date the facility was inspected. The date of the last inventory can be found in the Real Property Management System (RPMS), NASA's official system for real property management.

1. DETERMINE INVENTORY LIST

At the end of each month, the BOSS Real Property Lead or assigned Real Property Analyst will access RPMS and pull the list of facilities due to be inventoried the following month, based on the last inventory of the three-year cycle, as well as past due or newly constructed facility inventories.

2. ABANDONED, MOTHBALLED OR STANDBY FACILITIES

Do not enter facilities that are in abandoned status. Interior and exterior equipment will not be inspected. Inventories may be counted for abandoned facilities after a field visit to document that the facility is still there. When a facility goes into Standby or Mothballed status, conduct an inventory ensuring that another person assists.

3. FACILITY AND EQUIPMENT DOCUMENTATION

3.1. FSMS Record

Access FSMS and pull up the facility record. On the General tab, review the facility's current assigned Primary Function (aka Classification) code, Facility Status, Facility Type (aka Asset Class), Units of Measure, Construction Details and ensure SAP Details are populated. Review photo and ensure facility number is installed. Go to the Manager

tab and obtain Facility Manager assignments and contact information. This information can also be viewed in the FSMS data viewer Facility Information Center (FIC).

3.2. RPMS Record

Log into RPMS and pull up the facility record using the T-Code REBDBU. Pull the Master Data sheet and review the facility's current assigned Classification (aka Primary Function) code, Status, Asset Class (aka Facility Type), Units of Measure, Construction, and Property ID/SAP number. Ensure FSMS and RPMS data is the same.

3.3. Floor Plans

Review the latest floor plan in the facility folder for asset locations. Obtain a copy of the most recent facility floor plan and use it to notate current equipment locations. If a major floor plan discrepancy is found while conducting the inventory, notify the BOSS Facility Space Utilization office.

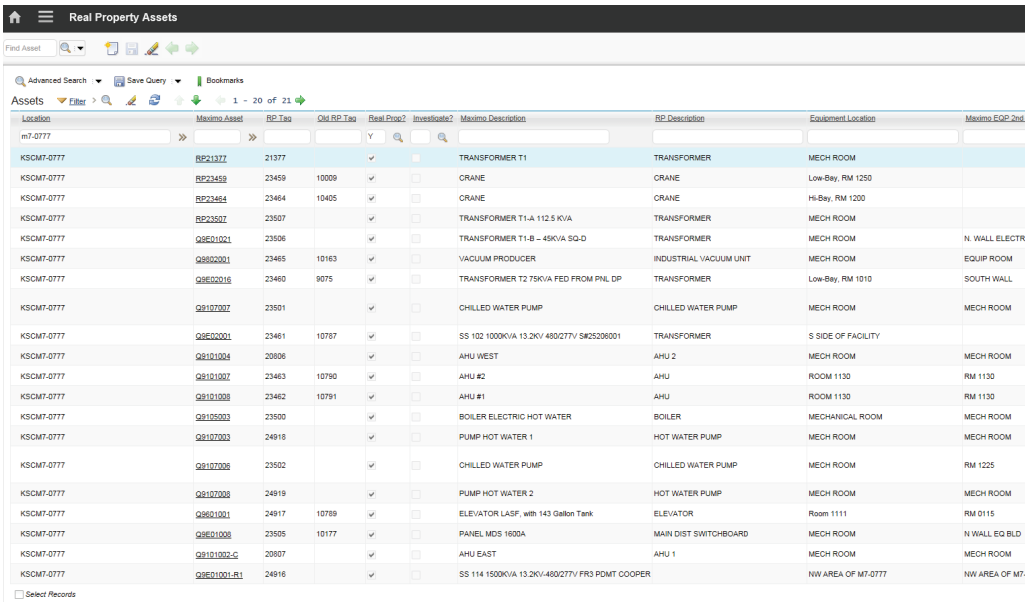
3.4. Geographical Information Systems (GIS) Data

Access Geographical Information System (GIS) and print a map of the facility location if needed. Pull surveyed square footage data and compare with real property square footage data. Note any differences that need to be investigated during the inventory.

3.5. Maximo Equipment Data

3.5.1. Pieces of equipment are also known as assets in Maximo. Data for these assets is maintained in two modules of Maximo, Assets and Real Property Assets. Asset information is updated on the Asset screen. The Real Property Asset screen is not editable but is used to generate the Maximo Real Property Asset report, which is maintained in the facility folder. See Figure 1.

FIGURE 1: MAXIMO REAL PROPERTY ASSET REPORT



Location	Maximo Asset	RP Tag	Old RP Tag	Real Prop?	Investigate?	Maximo Description	RP Description	Equipment Location	Maximo EQP 2nd
m7-0777				Y					
KSCM7-0777	RP21377	21377		✓		TRANSFORMER T1	TRANSFORMER	MECH ROOM	
KSCM7-0777	RP23459	23459	10009	✓		CRANE	CRANE	Low-Bay, RM 1250	
KSCM7-0777	RP23464	23464	10405	✓		CRANE	CRANE	Hi-Bay, RM 1200	
KSCM7-0777	RP23507	23507		✓		TRANSFORMER T1-A 112.5 KVA	TRANSFORMER	MECH ROOM	
KSCM7-0777	Q9E01021	23506		✓		TRANSFORMER T1-B – 45KVA SQ-D	TRANSFORMER	MECH ROOM	N. WALL ELECTR
KSCM7-0777	Q9802001	23465	10163	✓		VACUUM PRODUCER	INDUSTRIAL VACUUM UNIT	MECH ROOM	EQUIP ROOM
KSCM7-0777	Q9E02016	23460	9075	✓		TRANSFORMER T2 75KVA FED FROM PNL DP	TRANSFORMER	Low-Bay, RM 1010	SOUTH WALL
KSCM7-0777	Q9107007	23501		✓		CHILLED WATER PUMP	CHILLED WATER PUMP	MECH ROOM	MECH ROOM
KSCM7-0777	Q9E02001	23461	10787	✓		SS 102 1000KVA 13.2KV 460/277V S#25206001	TRANSFORMER	S SIDE OF FACILITY	
KSCM7-0777	Q9101004	20806		✓		AHU WEST	AHU 2	MECH ROOM	MECH ROOM
KSCM7-0777	Q9101007	23463	10790	✓		AHU #2	AHU	ROOM 1130	RM 1130
KSCM7-0777	Q9101008	23462	10791	✓		AHU #1	AHU	ROOM 1130	RM 1130
KSCM7-0777	Q9105003	23500		✓		BOILER ELECTRIC HOT WATER	BOILER	MECHANICAL ROOM	MECH ROOM
KSCM7-0777	Q9107003	24918		✓		PUMP HOT WATER 1	HOT WATER PUMP	MECH ROOM	MECH ROOM
KSCM7-0777	Q9107006	23502		✓		CHILLED WATER PUMP	CHILLED WATER PUMP	MECH ROOM	RM 1225
KSCM7-0777	Q9107008	24919		✓		PUMP HOT WATER 2	HOT WATER PUMP	MECH ROOM	MECH ROOM
KSCM7-0777	Q9601001	24917	10789	✓		ELEVATOR LASF, with 143 Gallon Tank	ELEVATOR	Room 1111	RM 0115
KSCM7-0777	Q9E01006	23505	10177	✓		PANEL MDS 1600A	MAIN DIST SWITCHBOARD	MECH ROOM	N WALL EQ BLD
KSCM7-0777	Q9101002-C	20807		✓		AHU EAST	AHU 1	MECH ROOM	MECH ROOM
KSCM7-0777	Q9E01001-R1	24916		✓		SS 114 1500KVA 13.2KV-460/277V FR3 PDMT COOPER		NW AREA OF M7-0777	NW AREA OF M7-

3.5.2. If a facility has real property installed equipment, access the Real Property Assets module in Maximo. Pull a list of all assets assigned to the facility and run the report. Download the data to an Excel worksheet and sort by Maximo Description. Look for possible duplicate assets, assets checked as Investigate and assets that may be real property but are not checked as real property. These assets will need to be looked into during the inventory and need to remain on the worksheet. Delete any assets that are not real property. Sort the list by RP Tag number, Maximo Description or Location, as preferred. Print the list to be used during the inventory.

3.5.3. Using the tablet, access Real Property Assets and download a list of equipment scheduled for inventory.

3.5.4. Pull the facility folder and look for a list of real property equipment from previous inventories and notate any discrepancies that need to be investigated during the inventory.

4. PACK REQUIRED ITEMS

Bring the tablet that has the downloaded list of equipment from Maximo, a printed list of current real property equipment from Maximo, NASA Real Property barcoded tags, mechanical and electrical room keys, required personal protective equipment (PPE), measuring tools and a flashlight.

5. CONTACT FACILITY MANAGER

If access to the facility is required, contact the Facility Manager and provide notification of the inventory effort. Invite the Facility Manager to participate in the inventory and make any special arrangements necessary for access to the facility, noting that access to mechanical and electrical rooms may be required. Provide the Facility Manager with a list of equipment from Maximo required to be inspected during the inventory, sorted by room number.

6. PLAN THE INVENTORY

6.1. Time

Establish a timetable for accomplishing the inventories. It is recommended that inventories be conducted in the morning hours during the summer months.

6.2. Transportation

Arrange for transportation as far in advance as possible. Company vehicles are limited and not always readily available. Do not drive your personal vehicle to conduct facility inventories.

7. DAY OF THE INVENTORY

7.1. Required Items

Ensure items listed in section 4 above have been packed for the inventory.

7.2. Check In

Upon arrival at the site/facility, check in with the Facility Manager or designated point of contact, if required. Observe all safety warnings and advisories and use PPE when required. Obtain keys or special access if necessary.

7.3. Conduct Inventory

Conduct the inventory using the documents gathered and tools brought for the inventory. Verify and record data listed on or missing from the current documentation on file (i.e., addition/removal of equipment, square footage updates, any change in usage). Determine if any equipment that has been checked as Investigate in Maximo is real property. If so, tag and notate to research for capitalization if required upon return.

7.3.1. Facility Number

Verify that the facility has proper facility number signage per ENG-I-RP06 and ensure that it is clearly visible. If the number is not visible, request that the facility manager submit a work order to have the facility number reinstalled/repainted or to have any vegetation blocking the facility number cleared. BOSS Real Property personnel can also submit a request to have a number reinstalled or repainted on a facility via the Electronic Work Request System (EWRS) system, found on the BOSS Program Site.

7.3.2. Equipment

Verify and record real property equipment data. Using the floor plan, verify that the equipment is still in place and note new or removed equipment locations. Access the tablet and verify equipment, add new equipment and notate equipment that has been removed. If any new real property equipment is found, place a NASA Real Property barcoded tag on the equipment, preferably close to the Maximo asset number or manufacturer information. If the equipment is tagged with an older, non-barcoded real property tag, re-tag it with a barcoded tag. Record data (manufacturer, serial number, model number) and photograph new equipment showing tag as well as equipment area proximity. Notate any major discrepancies from the data downloaded from Maximo to report to the BOSS Activation Configuration Asset Management (ACAM) office.

7.3.3. Square Footage/Capacity

Ensure the current square footage and/or capacity of facility is correct. When measuring exterior square footage, be sure to include the square footage of all floors (including mezzanines) in the facility. Verify all other units of measure are correct.

7.3.4. Usage/Status

Ensure facility use and status is properly documented. Determine if the current classification code assigned to the facility is correct.

7.3.5. Facility Photo

Ensure there is a current facility photo on file that displays the facility number. If there are any changes to the exterior of the facility, take a new photograph(s) to be updated in RPMS and FSMS.

7.3.6. Floor Plan and Room Number Updates

Note any square footage or room number discrepancies and report them to the BOSS Facility Space Utilization office.

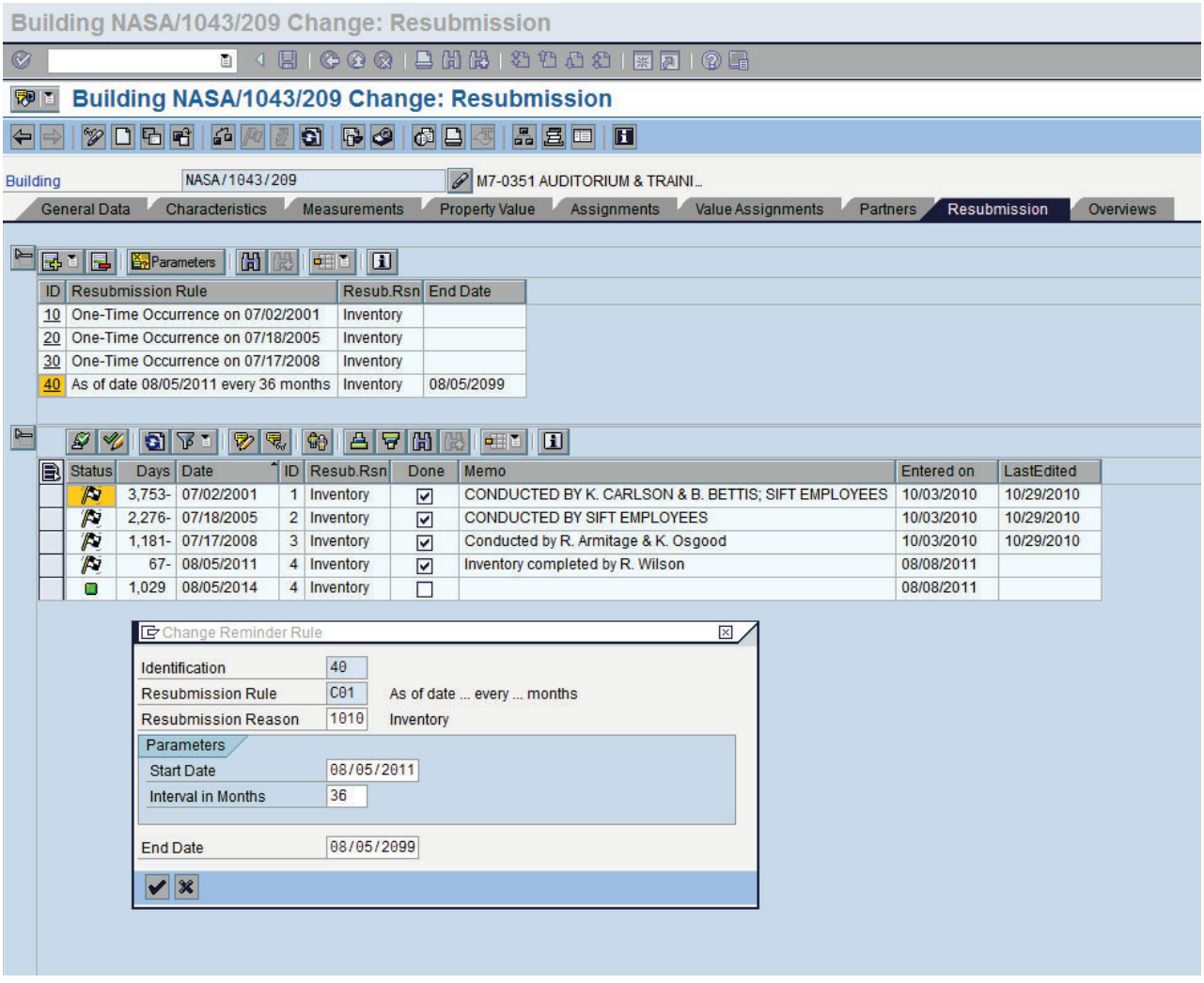
8. AFTER THE INVENTORY

8.1. Update RPMS and FSMS

8.1.1. Inventory Date

Utilizing the T-code REBDBU, access the facility record in RPMS and click on Resubmissions tab. Enter Inventory date and enter Change Reminder Rule with an interval of 36 months. See Figure 2.

FIGURE 2: BUILDING RESUBMISSIONS TAB



8.1.2. Facility Photo Updates

If new exterior photos were taken, update the photo in RPMS and FSMS.

8.1.3. Equipment Cost Updates

The KSC Real Property office is not always notified when equipment is added or removed, and these findings are often discovered during inventory inspections. After the inventory is complete, research may be required to properly capitalize real property assets. Facility records need to be adjusted with the addition or removal of such equipment via a transaction in the RPMS. See ENG-I-RP05 NASA Real Property Management System (RPMS) Transaction Process for detailed information.

8.1.4. Unit of Measure Updates

Any changes to square footage and/or capacities need to be documented and updated in RPMS. Units of measure also need to be updated in FSMS. Notify the BOSS Facility Space Utilization and GIS offices of any changes in square footage.

8.1.5. Facility Usage Updates

Any facility usage (i.e., Classification Code or Primary Function) changes need to be documented and reported to the KSC Real Property Accountable Officer (RPAO). Once the RPAO approves the changes, update RPMS via a transaction. Note that any classification code changes may result in changes to the facility unit of measure. Facility usage changes also need to be updated in FSMS, and a notice sent via email to the contacts on the distribution list maintained in FSMS the day after the update was made.

8.1.6. Facility Status Updates

Any facility status updates, such as abandonment, need to be reported to the RPAO. Once the determination is made and formal notification of the status changed has been reported to the BOSS Real Property office, the status needs to be changed via a transaction in RPMS. Facility status changes also need to be updated in FSMS and a FSMS Workflow Notification sent the day after the update was made.

8.1.7. Floor Plan Updates

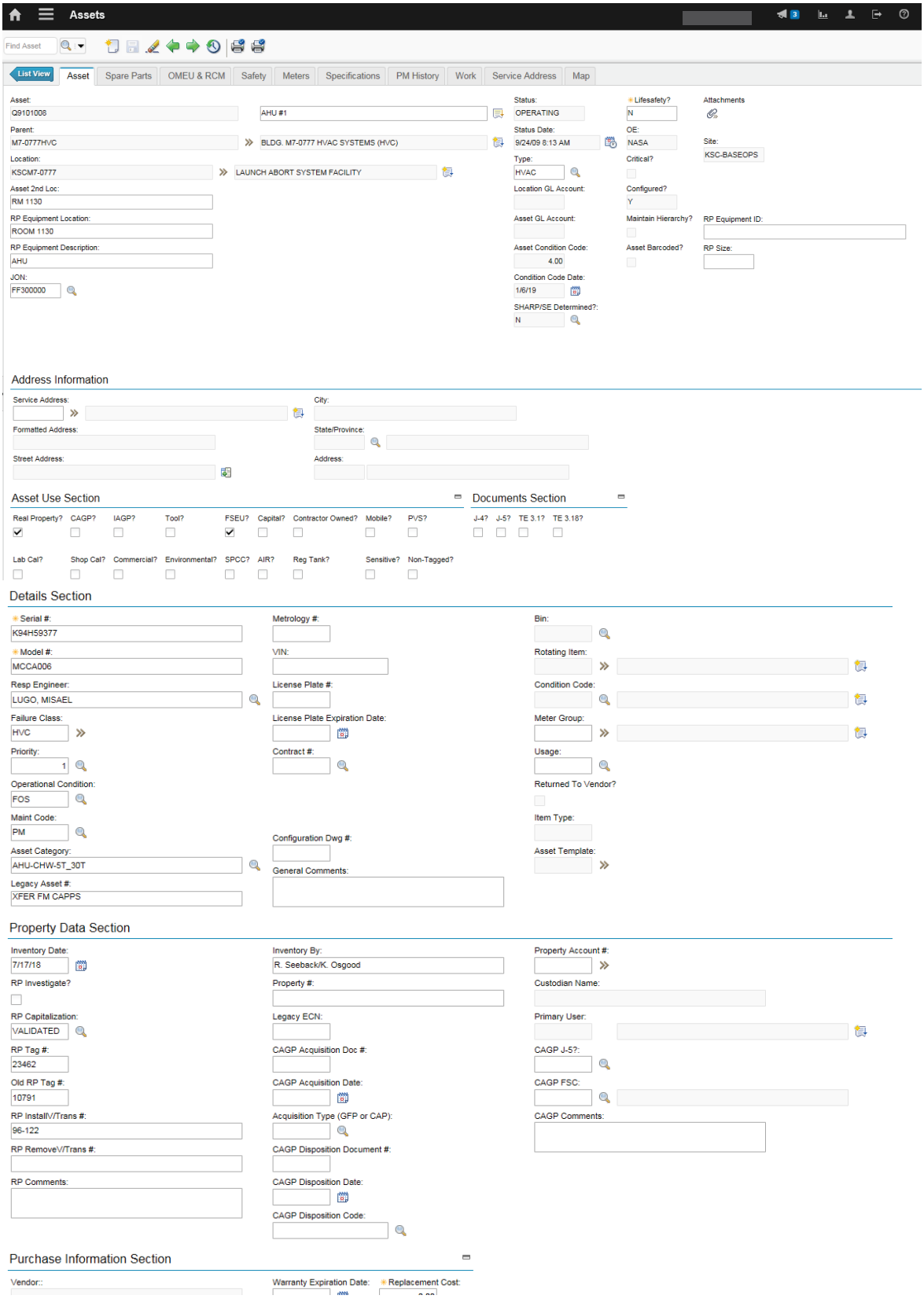
Manually update floor plans as required, date and file in facility folder. Report any major discrepancies to the BOSS Facility Utilization office.

8.2. Update Maximo

8.2.1. Maximo Asset Record

The Maximo Asset record as seen in Figure 3 is updated via the tablet and manually. The Inventory Date is updated via the tablet, and updates such as RP Equipment Location, RP Equipment Description, RP Equipment ID, Real Property? checkbox, MFG, model and serial numbers, un-checking the RP Investigate? check box, RP Capitalization, RP Tag #’s, RP Install and Remove V/Trans #’s, RP Comments, and RP Cost are done manually in Maximo.

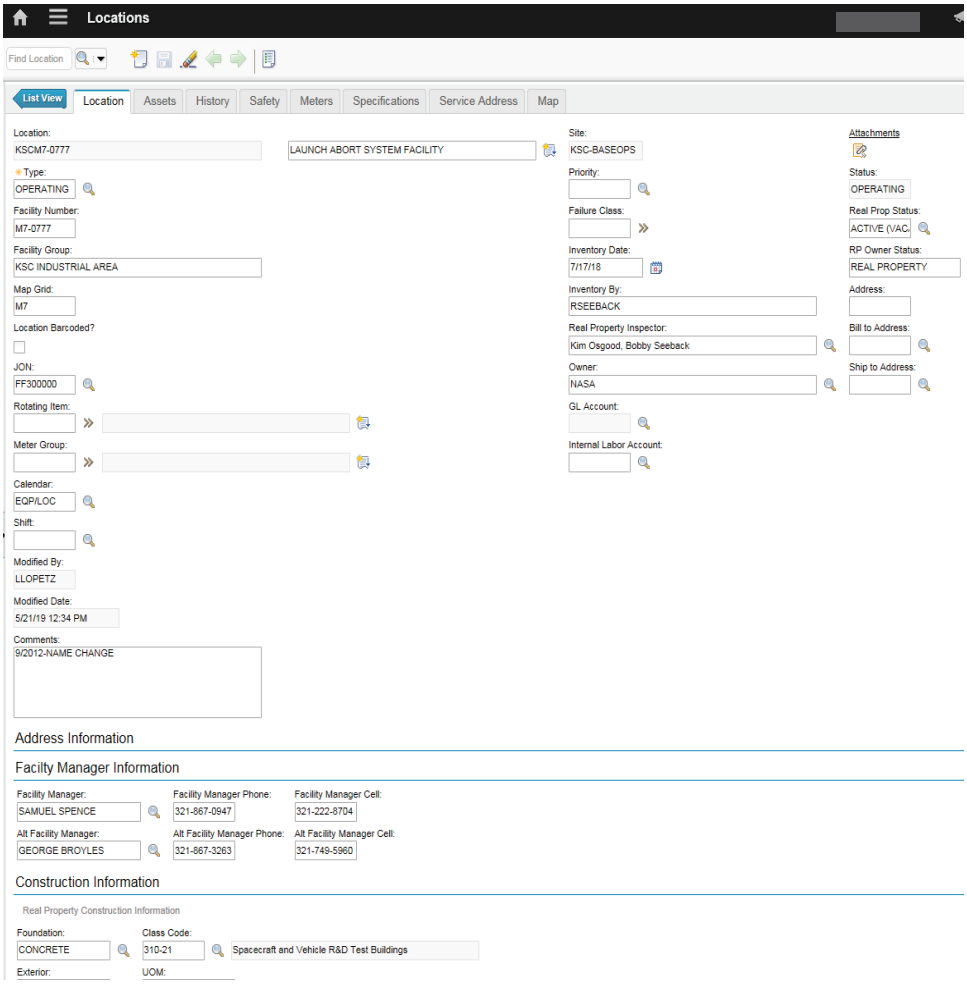
FIGURE 3: MAXIMO ASSET RECORD



8.2.2. Maximo Location Record

Access the Location module facility record and make any necessary real property, inspector or facility manager updates. See Figure 4.

FIGURE 4: MAXIMO LOCATION RECORD



8.2.3. Maximo Real Property Asset Report

Once the inventory is complete, access the Maximo Real Property asset module, enter the facility number, enter Y under the Real Prop? field and generate the Maximo Real Property Asset report. Export to an Excel worksheet and sort by Maximo Description. Ensure all fields are populated, print the report and file it in the facility folder.

8.2.4. Discrepancies

Report any major asset discrepancies found in Maximo to ACAM.

RECORDS

The following records are retained by the organizations listed below:

Record	Responsible Organization
Facility Space Management System Records	BOSS Real Property
Maximo Asset Records	BOSS Real Property
NASA Real Property Facility Folders, which contain ENG-F-RP01 NASA Real Property Cycle Inventory Forms	BOSS Real Property
NASA Real Property Management System Records	BOSS Real Property

ROLES AND RESPONSIBILITIES

Approver: Marc Dixon

Author: Laura Lopetz

REFERENCE DOCUMENTS

The following documents are referenced in this procedure:

Document Number	Title
NNK18619079R	Base Operations and Spaceport Services Contract
NPR 8800.15	NASA Real Estate Management Program Procedural Requirement
ENG-I-RP05	NASA Real Property Management System (RPMS) Transaction Process
ENG-I-RP06	Facility Numbering and Notice Release Process

ADDITIONAL RESOURCES

The following documents are not referenced in this procedure, but are an added resource:

Document Number	Title
NASW – 00009	NASA Real Property Classification Guide

ACRONYMS

ACAM – Activation Configuration Asset Management
BOSS – Base Operations and Spaceport Services
CCSFS – Cape Canaveral Space Force Station
EWRS – Electronic Work Request System
FIC – Facility Information Center
FSMS – Facility Space Management System
GIS – Geographical Information System
KSC – Kennedy Space Center

NASA – National Aeronautics and Space Administration
OMEU – Operator, Maintenance, Engineer and User
PPE – Personal Protection Equipment
RPAO – Real Property Accountable Officer
RPIE – Real Property Installed Equipment
RPMS – Real Property Management System

DEFINITIONS

Classification Codes: Part of a uniform coding system used to identify the primary function of NASA Real Property. Depending on the classification code, RPMS automatically generates the unit of measure and Asset Class code that is assigned to that property.

Facility: Structure or system identified by a numbering system and accounted for in the real property records. Facility numbers are assigned to, but not limited to, buildings, sewer and water mains, electrical distribution systems, sidewalks and roads.

Facility Folder: Maintained by BOSS Real Property, the facility folder houses facility records and information which includes, but is not limited to, master data sheets, equipment lists, cycle inventory forms, facility manager assignments sheets, floor plans, photographs and correspondence relating to the facility.

Facility Information Center (FIC): Data viewer which provides searchable facility information maintained in FSMS and made available to most organizations at KSC. The FIC also contains links to other systems including GIS, KSC/BOSS Floor Plan Report and OMEU.

Facility Manager: A person usually acting as a primary point of contact, assigned unique organizational duties associated with coordination and control, when appropriate, of facility activities.

Facility Number: A unique number assigned by the BOSS Real Property Office to real property including buildings, structures and land for identification, tracking and reporting purposes.

Facility Space Management System (FSMS): Also known as TRIRIGA. Unofficial database of all real property located on KSC and NASA real property located on CCSFS. The database contains general facility information, facility manager contact information, facility functions, facility costs, construction data and location. Information maintained in FSMS can be viewed in the Facility Information System (FIC).

Facility Status: Statuses include, but are not limited to, Active, Standby, Mothballed, Abandoned, Excessed or Demolished. Detailed descriptions can be found in NPR 8800.15.

Inventory: Physical inspection of a facility, usually completed after construction and triennially thereafter, which includes verification of facility measurements, classification code, status and real property installed equipment. Inspections ensure the accuracy of real property records.

Master Data Sheet: Also known as a building or facility card, a detailed data sheet in RPMS that contains facility information.

Maximo: Work management system currently used to track and maintain real property asset data.

NASA Real Property Barcoded Tag: Metal barcoded label which gets affixed to RPIE.

NASA Real Property Management System (RPMS): Official database listing all NASA owned Real Property. The BOSS Real Property Office uses this database to update KSC Real Property records.

Real Property: Land, buildings, structures, utilities systems, improvements and appurtenances, such as real property installed equipment, permanently annexed to planet Earth.

Real Property Accountable Officer (RPAO): Person responsible for real property accountability, including the recording and reporting of the NASA real property inventory. The RPAO plans, directs, coordinates and manages the activities of all the Center's real property including signing documents for KSC to transfer, accept, and dispose of all federal real property.

Real Property Installed Equipment (RPIE): Also known as collateral equipment. It includes building-type equipment, built-in equipment, and large substantially affixed equipment normally acquired and installed as a part of a facility project. The removal of such equipment would impair the usefulness, safety, or environment of the facility and would involve substantial cost because of the special or unique services required for the initial installation.

REBDBU: RPMS transaction code used to process a building record.

T-Codes: Codes used in RPMS to describe different types of transactions.

Tablet: Device used to download, update and upload real property equipment information in Maximo.

REVISION RECORD

The following revisions have been applied to this document:

Revision Number	Change Description	Date
0	Initial Release to replace PLP-I-RP06	09/30/09
1	Minor Revisions; Update Template & Records Table. No Formal Review Required per QPO	08/30/11
2	Revision to update new system data and process	10/03/11
3	Revision to include Maximo data	05/08/14
4	Revision to abandoned facility inventories in Section 2	07/29/15
5	BOSS release	10/16/19
6	Revision to change all references of Cape Canaveral Air Force Station (CCAFS) to Cape Canaveral Space Force Station (CCSFS), remove Cycle Inventory Form ENG-F-RP01, Updates to Process, 1. Determine Inventory List, and 7.3.1 Facility Number	02/09/21

DOCUMENT APPROVALS

2/11/2021

X Laura Lopetz

Laura Lopetz
Lead, Real Property
Signed by: cards

2/11/2021

X Marc Dixon

Marc Dixon
Lead, Site Services
Signed by: cards