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Operations

OPERATIONS MAINTENANCE SCHEDULING

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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This instruction establishes the policies and procedures to request, schedule, approve, and cancel activities for missile warning and space control units in accordance with UI 10-23, *Integrated Tactical Warning Attack Assessment (ITWAA) Procedures and Systems*, and UI 10-40, *Space Surveillance Operations*. It ensures that scheduled downtimes result in minimal degradation to 21st Space Wing (21 SW) missions. Individual units will not modify these requirements without prior coordination and approval from the 21st Space Wing. Send recommended changes to the 21 SW Wing Operations Center (WOC), Combat Plans Branch, Wing Scheduling Section. Maintain and dispose of records created as a result of prescribed processes in accordance with AFMAN 37-139, *Records Disposition Schedule* (will become AFMAN 33-322 Vol. 4).

SUMMARY OF REVISIONS

This revision includes numerous administrative changes; expanded section **1.2.** to include the 10% limit and the requirement for the unit to submit a waiver request; revised section **1.2.1.** to remove outdated procedures and included 721 MSG SPADOC 4 system failover procedures; added sections **1.2.2.** and **1.2.3.**; expanded section **1.3.**; added section **1.3.1.** clarifying when a line number extension will be listed as normal maintenance or corrective maintenance; removed all references to Passive Units; and added section 2.3.4. A bar (|) indicates a revision from the previous edition.

1. POLICY:

1.1. Operational Downtimes. Unit operational downtimes are authorized for, but not limited to, preventive maintenance (PM), hardware/software upgrades, and testing and maintenance training. 21 OG units submit their Monthly Maintenance Schedule (MMS) requests and revisions to 21 SW/DOCX. External testing agencies requiring support from 21 OG units will have their tests scheduled on the MMS, as well as the 721 MSG Tech Control (TC) Test Control Board (TCB) schedule.

1.2. **Monthly Maintenance Schedule (MMS).** The purpose of the MMS is to schedule preventive maintenance (PM), hardware/software upgrades, testing and maintenance, and training downtimes. These downtimes are either Operational Capability (OPSCAP) RED, YELLOW, or GREEN. Monthly activity requests for the MMS must be received by the 21 SW/DOCX for consolidation no later than (NLT) the 15th day, 2 months prior to the month downtime is required. Whenever downtime does not meet UI 10-23, missile warning threat requirements, or exceeds the mandated 10% limit of available downtime hours, the unit commander will submit a waiver with the downtime request to 21 SW/DOCX who includes it with the MMS package for 21 OG/CC approval. Only OPSCAP RED maintenance/tests count towards the 10% total maintenance limit.

1.2.1. All foreseeable downtimes expected to exceed 2 minutes must be requested and scheduled in the MMS in accordance with this instruction. All requested downtimes will be submitted with the appropriate OPSCAP status. To minimize MMS revisions, sites may submit alternate times for their requested downtimes. The only exceptions are for the 10 SWS, Cavalier AFS ND, which is authorized an AT-1 tape run every other Wednesday between 0600Z and 1300Z for system verification and analysis; and for the 721 MSG to perform SPADOC 4 system failovers to clear the SPADOC 4's system buffers (1 SPCS will notify the 21 SW WOC 30 minutes prior for initial approval, then 5 minutes prior for final approval).

1.2.2. Routine site training is not considered maintenance and as such does not require a scheduled line number. SPADOC 4 "Alternate Routing" and "Normalization" refers to the switching of data lines from CMOC to the Alternate in Offutt AFB NE. These procedures are also considered training and as such do not require a maintenance line number. 721 MSG will request permission to accomplish these actions with an initial request 30 minutes prior to start and a final request 5 minutes prior to switching the data paths.

1.2.3. All 21 OG units will request approval to take maintenance/testing line numbers from the approving agency, 21 SW WOC (missile and space) or SPACEAF AOC (missile warning).

1.2.3.1. Missile warning units will request initial approval 30 minutes prior to the start, then final approval 5 minutes prior to the start of the planned activity.

1.2.3.2. 21 SW space surveillance units will request initial approval from 21 SW WOC 30 minutes prior to the start of the maintenance/testing. 21 SW WOC will then notify 1 SPCS of the planned downtime to get concurrence there will be no impact to the space surveillance mission. 21 SW WOC will then grant/disapprove the site's request based on the 1 SPCS recommendation at the 5 minute final request. Space surveillance units will then call their OPSCAP to 21 SW WOC who in turn notifies CMOC via the sensor management conference.

1.3. **Monthly Maintenance Schedule (MMS) Revisions.** All 21 OG units (missile warning and space) request maintenance/testing revisions through 21 SW/DOCX. 21 SW/DOCX schedules, cancels, or revises downtime and/or testing activities only when requested by the operational unit. 21 SW/DOCX must receive MMS revision requests NLT 24 hours prior to the scheduled downtime, excluding weekends. Requests for downtime submitted within 24 hours (48 hours for requests coming in after duty hours on Fridays) of the start time are called into the on-duty 21 SW WOC/SPACEAF AOC crew commander/crew chief and are considered on a case-by-case basis. 21 SW WOC, SPACEAF AOC, or the unit may cancel scheduled maintenance activities due to mission requirements.

1.3.1. A unit may request a line number extension only if the request is submitted prior to the unit entering into the recall time of that line number. These extensions will be granted on a case-by-case basis and will continue as normal maintenance/preventive maintenance. If the unit requests a line number extension while within the line number's recall time then the entire maintenance will be transferred and logged as corrective maintenance (CM).

2. RESPONSIBILITIES:

2.1. **21 OG Units.** Units will submit all MMS requests to 21 SW/DOCX using the format shown on **Attachment 2** and **Attachment 3** prior to the 15th day, 2 months prior to the month the request is for. Proper format is essential due to the 21 SW database constraints. All scheduling requests will include a unit point of contact (POC) with name and associated phone numbers. Scheduling requests sent via AUTODIN/Classified DMS will be sent via immediate priority.

2.1.1. Units will coordinate on external agency Test Objective Worksheets (TOWs) to 21 SW/DOCX. As a minimum, units will provide what the test impact to the unit is, unit OPSCAP during the test, and whether the unit can support the test. Units will notify 21 SW/DOCX of any discrepancies or questions regarding the TOW. 21 SW/DOCX will act as interface between the units and the tester. 21 OG units will not participate in a test without coordinating on the TOW or without having a line number assigned specifically for the test being conducted.

2.1.2. Units will submit MMS requests for site and external originated testing to 21 SW/DOCX.

2.1.3. Units will provide rationale for downtime requests that violate the requirements of UI 10-23 or UI 10-40. Units will provide 21 SW/DOCX with a detailed description of the requested activity, rationale, and operational impact if delayed or not performed. This information is essential for successful waiver processing.

2.1.4. The unit Operations Officer (DO) is the approving authority for unit participation in test activities. Each unit will utilize a unit test manager as a POC for all test related inquiries. 21 OG units will not participate in a test unless a line number is issued.

2.1.4.1. 721 MSG TCO sends out a weekly test message every Thursday. Units will review the message for testing information. Any discrepancies between the 721 MSG TCO message and the MMS will be reported to 21 SW/DOCX.

2.1.4.2. 21 OG units will be prepared to test at the assigned test time. The testing agency will contact units NLT 1 hour after assigned test start time. If the tester has not contacted the unit, the unit will attempt to contact the tester. If the tester cannot be contacted, the unit will cancel the line number for the test with the appropriate command and control agency (21 SW/WOC or SPACEAF/AOC).

2.1.5. Extended Sensor Site Downtime Requests. Sensors will notify 21 SW/DOCX of any required extended major downtimes 20 days prior to the start of the requested downtime. Extended major downtimes are those downtimes greater than 24-hour duration that affect a site's OPSCAP. This includes the primary, secondary, or tertiary mission of a sensor.

2.1.5.1. Notification should be made by AUTODIN/Classified DMS message or classified fax and will include the following information:

2.1.5.1.1. Description of Outage.

2.1.5.1.2. Dates/Duration of Outage

2.1.5.1.3. Reason for Downtime

2.1.5.1.4. Impact if Downtime is not accomplished.

2.1.5.1.5. Reason the Downtime was not in Original Monthly Maintenance Schedule Request (if applicable).

2.1.5.2. Failure to provide the required information will result in the delay or denial of requested downtimes. Emergency/late requests will be handled on a case-by-case basis.

2.2. **Test Managers.** All test control board (TCB) tests involving 21 OG units are scheduled in the MMS based on the inputs received from the site's test manager from the 15th day of the month prior to the month being scheduled. Any changes to the TCB schedule after the 15th day will be requested by the test OPR to the unit NLT 3 working days prior to the test. Testers will contact units directly for all test-related matters. All agencies requesting a Category A or B test will coordinate with the participating units using the TOW NLT 6 weeks prior to the start of test. The TOWs will include all necessary configuration and site information. Incomplete/inaccurate TOWs will not be accepted. If a TOW is updated, testers will submit the updated TOW to the participating units. All unit Operational Test and Evaluation (OT&E) generated TOWs will comply with NUI 10-48 (Test Control).

2.2.1. Test managers will begin testing with 21 OG units at the assigned test time. The testing agency will contact units no later than one hour before assigned test start time. If the tester does not contact units, they will attempt to contact the tester. If contact is not made, the units will cancel the test line number.

2.3. **21 SW/DOCX.** 21 SW/DOCX produces the MMS. 21 SW/DOCX consolidates, prioritizes, and processes all requests for scheduled activities. 21 SW/DOCX schedules and de-conflicts requested downtimes and submits 21 OG unit waivers for requested outages.

2.3.1. 21 SW/DOCX distributes the MMS to 21 OG units and applicable users. 21 OG units will receive the portion of the MMS affecting their mission and that of their sister site(s).

2.3.2. 21 SW/DOCX accepts all unit requests for revisions to the MMS that are not within 24 hours of the maintenance start time then updates the MMS as needed. Requests should be submitted NLT 1800Z (1900Z during day light savings time) the day prior to the required outage. Late and/or urgent requests will be handled on a case-by-case basis.

2.3.3. 21 SW/DOCX attends the weekly 721 MSG TCB meetings to ensure continuity between unit requested downtimes and scheduled Category A and B tests. All testing downtime requests not originating at the unit will be scheduled by 21 SW/DOCX.

2.3.3.1. 21 OG Units have 5 working days from receipt of TOW to complete coordination and provide comments to the testing agency.

2.3.3.2. 21 SW/DOCX schedules Cat A and B testing based on the unit's request for downtime. Unit MMS requests are deconflicted based upon wing priorities. If a change to the TCB schedule is requested, the test OPR notifies the applicable unit NLT 3 days prior of test start date.

2.3.3.3. 21 SW/DOCX holds a monthly scheduling meeting with all external agencies requesting scheduled downtime in the MMS. These meetings focus on the long range planning

| and deconfliction of both 21 OG missile warning and space surveillance assets.

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Commander

Attachment 1**GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION*****Terms***

Corrective Maintenance (CM) —Any non-scheduled maintenance performed to repair or replace equipment that affects the unit's OPSCAP.

Downtime —Scheduled or nonscheduled loss or reduction in mission capability which results in a RED or YELLOW OPSCAP (GREEN OPSCAP line numbers will be scheduled for tests in order to Lock-in the test time block).

Monthly Maintenance Schedule (MMS) —A schedule of planned unit downtime activities approved by the 21 SW/DOCX for applicable 21 OG units.

Operational Capability (OPSCAP) —The overall capability of the site to perform its mission.

Preventive Maintenance (PM) —Maintenance scheduled via the MMS on any equipment or system which causes a RED, YELLOW, and GREEN OPSCAP.

Revision Request —A request to add an activity, change, or cancel any scheduled activity after the current MMS has been published and distributed.

Scheduled Activity —Any activity during a predefined period which is forecasted in advance and incorporated into the MMS.

Test Control Board —A weekly meeting held by 721 MSG to coordinate CMOC testing.

Attachment 2**MMS LINES EXPLAINED****Unclassified Sample MMS Line (_ symbol denotes a space):**

ABC D E F G H J K LMN O P Q R
 SBCLR_TR_09_12_2100_2400_060_0400_GEFPS092_000_R/M001_/NOTE A
 SBCLR_TR_09_13_0000_0100_060_0400_GEFPS092_000_R/M002_/NOTE A

Unclassified Sample MMS Request Line (_ symbol denotes a space. Q has five spaces):

ABC D E F G H J K LMN O P Q R
 SBCLR_TR_09_12_2100_2400_060_0400_GEFPS092_000_R/_____/NOTE A
 SBCLR_TR_09_13_0000_0100_060_0400_GEFPS092_000_R/_____/NOTE A

Sample MMS Note:

UBCLRA01 THIS IS THE PROPER FORMAT FOR THE NOTES THAT ACCOMPANY THE
 UBLCRA02 LINES. NOTICE HOW A01 CONTINUES TO A02 AND A03 TO FINISH THE
 UBCLRA03 NOTE. (Do not use a number in the first 25 characters of the note as the MMS database
 reads this as a line number)

Column Title Explanation

1 (A) Classification appropriate classification: Unclassified = U, Confidential = C, Secret = S.

2 (B) System Code

B = BMEWS; THL, CLR, FYL

M = RADAR; COD, BLE, CAV

O = OPTICAL; SOC, DGC, MAU (GE), MAU (MOT), TOS

S = SPACE; ANT, ASC, ALT, EGL, KAE

3-5 (C) Site. Three letter site abbreviation.

6 blank

7-8 (D) Function. Describes the type of equipment affected. If this is not applicable to your unit, enter "--".

9 blank

10-11 (E) Month. Numerical digits 01 through 12.

12 blank

13-14 (F) Start Date. The date the line number begins (01-31).

15 blank

16-19 (G) Start Time. The Zulu time the line begins (0000-2359).

20 blank

21-24 (H) Stop Time. The Zulu time the line ends (0001-2400).

25 blank

26-28 (J) Recall. The total number of minutes to restore the equipment back to full operational status. If the recall time is less than 100, preface the number with a zero(s). If the recall time is the entire length of the outage, enter a value of 999.

29 blank

30-33 (K) Duration. Total duration of downtime in hours and minutes. The first two digits represent the hours and the last two represent the minutes. If a single outage is reflected with more than one line number, ensure the entire length of the outage is reflected and not the length of each line. If the total duration is greater than 99 hours and 59 minutes, enter a value of 9999.

34 blank

35 (L) Site OPSCAP. One of three choices depicting site status IAW regulation definitions.

G = GREEN

Y = YELLOW

R = RED

36 (M) Downtime Code. Describes the purpose of the downtime. See [Attachment 3](#).

37-42 (N) Equipment Item. The six digit alphanumeric nomenclature of the equipment or mission code affected by the activity.

43 blank

44-46 blank

47 blank

48 (P) Equipment Status. G, Y, or R to depict the equipment status during the downtime.

49 slash. Enter “/”.

50-54 (Q) Line Number. Leave blank. 21 SW/DOCX will assign the line number prefixed by the letter ‘M’ or ‘S’ or ‘D’.

55 slash. Enter “/”.

56-69 (R) Remarks. Explains the primary reason for the downtime. If more space is required, a note will be referenced.

Attachment 3**DOWNTIME CODE LISTING**

Downtime Codes are used to identify the reason equipment will not be operational.

Code Explanation

A - Retrofit or Modification - Used when it is necessary for an operational command to remove an active equipment item from its assigned mission to perform a modification.

B - Depot Maintenance Scheduled - Used for scheduled Air Logistics Center (ALC) or overhaul, radome painting, and other such operations.

C - Test - Use for all scheduled tests or evaluations except preventive maintenance inspections (PMIs).

E - Preventive Maintenance - Time the equipment or channel is red or amber in its assigned mission due to performance of scheduled preventive maintenance inspections (PMIs) required by Air Force, MAJ-COM, or FOA directives.

F - Failed Flight Check or Operational Systems Check - Used to record the time active equipment is not capable of performing its assigned mission due to inability to pass flight inspection or periodic operational system check.

G - Vehicle out of Commission - Used when a vehicle, integral to a C-E system, is out of commission.

H - Host Base Action - Used for reasons such as runaway construction, building repair, snow removal, etc.

I - Scheduled Maintenance - Use for scheduled maintenance not covered by other downtime codes.

J - Damage or Deterioration - Use for uncontrollable equipment damage caused by events other than weather and jamming such as natural disasters, vandalism, or riot.

K - Relocating/Resetting - Use for relocating or resetting of equipment for any reason other than deployment and runway changes of longer than 15 minutes.

L - Associated Equipment Malfunction - Use when associated or ancillary equipment not work unit coded under the reportable equipment causes downtime.

M - Equipment Malfunction - Use for equipment or component failure. Applies to components and equipment listed in the work unit code manual for reportable equipment.

N - Power Failure - Use when downtime occurs due to loss of commercial, local, or backup power. Includes downtime due to unstable power and any recovery time.

O - Scheduled Software Maintenance - Scheduled downtime for software change, maintenance, or testing.

P - Environmental Control - Use for failure of temperature, humidity, and dust control equipment not part of the end item.

Q - Cable Out - Use for downtime due to defective or damaged cable.

R - Emergency Maintenance - Use when equipment does not meet technical order standards and outside assistance is required.

T - Training - Use for downtime due to on-the-job-training as approved by the Chief of Maintenance, Systems Flight Commander, or equivalent representative.

V - Military Priority - Used only when equipment must be shutdown due to personnel safety hazard, interference with other equipment or systems, or when directed by HHQ (not used for troubleshooting or running maintenance diagnostics).

Z - Frequency Change - Use for downtime due to frequency change of more than 15 minutes.

Source: AFI 21-103