

***NATIONAL WEATHER SERVICE PACIFIC REGION SUPPLEMENT 01-2012***

***APPLICABLE TO NWSI 30-2104***

***March 11, 2019***

***Maintenance, Logistics and Facilities  
System Maintenance, NWSPD 30-21***

***Maintenance Data Documentation, NWSI 20-2104***

***EMRS Maintenance Requests***

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***SUMMARY OF REVISIONS:***

This supplement supersedes NWS Pacific Region Supplement 01-2012, “EMRS Maintenance Requests”, dated January 23, 2012, with the following changes:

- Page 1: Per Biennial Review Requirement, obtained new signature/date and updated date of supplement.
- Page 2, Section 1: Changed WSO Koror to WSO Palau.
- Pages 3, 4 and 5, Section 3: Added “Office Staff” to Roles and Responsibilities.
- Section 4.3, Page 5: Updated online location of NWS Engineering Handbook Number 4.
- Page 5, Sections 4.1 and 4.5: Changed Console Replacement System (CRS) to Broadcast Management System (BMS).
- Page 6, Section 4.4: Changed OPSNET to OneNWSNet.
- Page 6, Section 4.7: Removed requirement to report non-AWIPS IT issues through EMRS.
- Page A-1: Updated EMRS Maintenance Request screen shot.
- Page B-1: Updated daily EMRS A-26 Log Report screen shot.

/signed/

2/25/2019

Raymond Tanabe  
Director, Pacific Region

Date

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1. Scope

National Weather Service Instruction (NWSI) 30-2104 describes the Engineering Management Reporting System (EMRS) and the procedures necessary for collecting data use to assess the reliability and maintainability of weather surveillance systems, facilities and infrastructure. This supplement details how EMRS will be used within the Pacific Region in order to report outages, request maintenance and repairs, document completed maintenance and repairs, and generate regional daily outage reports. This supplement applies to all Pacific Region offices, including Pacific Region Headquarters (PRH), Weather Forecast Office (WFO) Honolulu, WFO Guam, Pacific Tsunami Warning Center (PTWC), Data Collection Office (DCO) Hilo, DCO Lihue, Weather Service Office (WSO) Pago Pago, WSO Majuro, WSO Palau, WSO Yap, WSO Pohnpei and WSO Chuuk.

2. Definitions

EMRS Maintenance Request: An EMRS Maintenance Request is a request transmitted through the National Weather Service (NWS) EMRS system which requires the headquarters and/or field offices to perform some action. This action may involve installation or changes to hardware, software or communications components, changes to software configurations to accomplish a service change and audits of hardware or software components and configurations.

EMRS maintenance requests include a description of the work to be performed, as well as directions to access further instructions and documentation on completing the work. The instructions include timelines for performing the work as either routine or emergency and the appropriate staff member(s) designated as the project lead or point of contact to accomplish the work. Offices must close out EMRS maintenance requests when the work is completed, which ensures accurate reporting of system availability time.

Daily Outage Report: The Daily Outage Report is a summary of all outages within Pacific Region. The report will be issued once a day via email to a designated distribution list. The email will be an automated report generated directly from EMRS. The report will also list any EMRS request that was closed the previous day.

### 3. Roles and Responsibilities

#### **Pacific Region Headquarters**

Systems Operations Division (SOD) Chief: The SOD Chief is responsible for establishing and updating EMRS policy within the region.

Program Manager: The program manager is the person with the authority to request a change to a system or service. This may involve installation of new hardware/software or configuration changes to systems, services or communications devices. The program manager has management responsibility for the affected system or service. The system program manager is responsible for developing or obtaining the maintenance requirements, documentation, test plans and deadlines.

Regional Focal Point: The regional focal point is the person within the region that is responsible for coordinating system changes and/or maintenance for a particular system. The regional focal point works closely with the program manager and field offices to ensure system changes are completed correctly and on schedule.

Area Electronics Supervisor (AES): The AES is responsible for day-to-day monitoring of EMRS and ensures system maintenance requests are properly submitted, assigned, completed and closed.

Electronics Technician (ET): The ET is responsible for submitting and responding to EMRS tickets, resolving the electronic systems issues and closing the tickets.

Facilities Chief: The Facilities Chief is responsible for day-to-day monitoring of EMRS and ensures facilities maintenance requests are properly submitted, assigned, completed and closed.

Facility Engineering Technicians (FET): The FET is responsible for submitting and responding to EMRS tickets, resolving facilities issues and closing the tickets.

Regional Information Technology (IT) Program Manager (PM): The regional IT PM is responsible for day-to-day monitoring of EMRS and ensures IT maintenance requests are properly submitted, assigned, completed and closed.

IT Specialists: IT Specialists are responsible for responding to EMRS tickets, resolving IT issues and closing the tickets.

Communications Manager: The Communications Manager is responsible for day-to-day monitoring of EMRS and ensures communications maintenance requests are properly submitted, assigned, completed and closed.

Office Staff: The office staff are responsible for submitting EMRS tickets for any system or facility issues or outages.

#### **Weather Forecast Office**

Meteorologist-in-Charge (MIC): The MIC is responsible for overseeing changes to systems at the local office. He/she provides the necessary resources to accomplish system changes according to documentation and schedules within an EMRS maintenance request. He/she ensures their staff reports and addresses EMRS maintenance requests in a timely manner.

Electronics System Analyst (ESA): The ESA is responsible for day-to-day reporting, monitoring and closing of EMRS tickets related to IT and electronic systems for their weather forecast office (WFO) and area of responsibility (AOR).

Information Technology Officer (ITO): The ITO is responsible for day-to-day reporting, monitoring and closing of EMRS tickets related to IT systems for their WFO and AOR.

Electronics Technician: The ET is responsible for submitting and responding to EMRS tickets, resolving the electronic systems issues and closing the tickets.

Office Staff: The office staff are responsible for submitting EMRS tickets for any system or facility issues or outages.

### **Pacific Tsunami Warning Center**

Office Director: The Office Director is responsible for overseeing changes to systems at the local office. He/she provides the necessary resources to accomplish system changes according to documentation and schedules within an EMRS maintenance request. He/she ensures their staff reports and addresses EMRS maintenance requests in a timely manner.

Senior Electronics Technician (SET): The SET is responsible for day-to-day monitoring of EMRS and ensures system maintenance requests are properly submitted, assigned, completed and closed.

Electronics Technician: The ET is responsible for submitting and responding to EMRS tickets, resolving the electronic systems issues and closing the tickets.

Office Staff: The office staff are responsible for submitting EMRS tickets for any system or facility issues or outages.

### **Data Collection Office**

Official-in-Charge (OIC): The OIC is responsible for overseeing changes to systems at the local office. He/she provides the necessary resources to accomplish system changes according to documentation and schedules within an EMRS maintenance request. He/she ensures their staff reports and addresses EMRS maintenance requests in a timely manner.

Electronics Technician: The ET is responsible for submitting and responding to EMRS tickets, resolving the electronic systems issues and closing the tickets.

Office Staff: The office staff are responsible for submitting EMRS tickets for any system or facility issues or outages.

## **Weather Service Office**

Meteorologist-in-Charge/Official-in-Charge: The OIC/MIC is responsible for overseeing changes to systems at the local office. He/she provides the necessary resources to accomplish system changes according to documentation and schedules within an EMRS maintenance request. He/she ensures their staff reports and addresses EMRS maintenance requests in a timely manner.

Electronics Technician/Electronic Program Specialist (EPS): The ET/EPS is responsible for submitting and responding to EMRS tickets, resolving the electronic systems issues and closing the tickets.

Office Staff: The office staff are responsible for submitting EMRS tickets for any system or facility issues or outages.

## 4. Processes

### 4.1 What to Report

All maintenance requests and system outages impacting the NWS mission will be reported in EMRS and, in certain conditions, the Unscheduled Outage System (USOS). This includes, but is not limited to, the Advanced Weather Interactive Processing System (AWIPS), Broadcast Management System (BMS), NOAA Weather Radio (NWR), Automated Surface Observation System (ASOS), Radiosonde Replacement System (RRS), hydrogen generators, telecommunications, data collection platforms and facilities.

### 4.2 When to Report an Outage

Outages should be reported in EMRS as soon as possible, but no later than 24 hours after the outage occurs. Outages of major system or communications must be reported in both the EMRS and the USOS in accordance with timelines described in NWSI 30-2112, Appendix C.

### 4.3 How to Report an Outage

All outages will be reported in EMRS in accordance with NWSI 30-2104 via an electronic Maintenance Record, A-26. An A-26, shown in Appendix A, will be submitted via the EMRS web portal at [https://ops13web.nws.noaa.gov/pls/emrsuser/emrs\\_main.home](https://ops13web.nws.noaa.gov/pls/emrsuser/emrs_main.home). Detailed instructions on using EMRS can be found in the NWS Engineering Handbook Number 4 at [https://ops13web.nws.noaa.gov/emrs/help/PDF\\_Files/EHB\\_4.pdf](https://ops13web.nws.noaa.gov/emrs/help/PDF_Files/EHB_4.pdf).

### 4.4 When to also submit an USOS Report

In addition to generating an EMRS ticket, a USOS report will be filed for the following types of outage conditions:

- a. Failure of AWIPS that requires implementation of full or partial service backup as described in NWSI 10-2201;
- b. Failure of BMS, expected to last six hours or more to be reported within three hours;
- c. Failure of NOAA Weather Radio transmitter, expected to last six hours or more to be reported within three hours;
- d. Failure of WFO, DCO or WSO voice communications, expected to last six hours or more to be reported within three hours;
- e. Failure of OneNWSNet or Internet connection, expected to last six hours or more to be reported within three hours;
- f. Failure of Upper Air equipment, including the RRS, expected to last six hours or more to be reported within three hours. Outages of hydrogen generators should be reported if no hydrogen or backup helium is available and upper air flights are not operational.
- g. Total failure of ASOS, expected to last six hours or more, to be reported within three hours after the failure;
- h. Failure of PTWC's tsunami warning system, expected to last six hours or more to be reported within three hours.

USOS reports shall be submitted in accordance with NWSI 30-2112. The report shall include the date and time the outage began, the cause of each outage, actions being taken to restore the equipment or system, the projected restoration date and time, the effects on service and severe weather during the outage. USOS outages are tracked and reported in a daily stand-up to the NWS Director. USOS reports should be updated daily with current status and estimated time of repair.

#### 4.5 Upper Air/Hydrogen Generator Outages

When reporting an upper air outage related to the production of hydrogen, the submitter shall report the total available amount of hydrogen stored in the hydrogen storage tank and the total number of helium bottles available on site. Outages of hydrogen generators should be reported via EMRS as soon as possible. An email notification should also be forwarded to the ESA or AES (as applicable), the Facilities Chief and the Data Systems Group (DSG) Upper Air Regional Program Manager.

#### 4.6 Facilities Maintenance Requests

Facilities maintenance requests, outages and general issues will be submitted in EMRS as required. Facilities requests and outages may include such items as electrical and lighting systems, air condition systems, generators, uninterruptable power supplies (UPS), roofing, fencing, gates, plumbing, painting, fire protection/alarms, security systems/cameras, towers, housing repairs and construction.

#### 4.7 Information Technology Maintenance Requests

IT infrastructure maintenance, outages and general issues will be no longer be submitted in EMRS, but through the web held desk system. IT requests and outages may include such items as desktop or laptop computers, peripherals, servers, routers, switches and firewalls.

#### 4.8 When to Close/Commit an A-26 or USOS

The A-26 or USOS report is closed or committed when all activities associated with the maintenance or outage event are concluded. This should happen when an outage is cleared and the system/equipment or facility is returned to service, an activation, deactivation, modification or relocation is completed, regularly scheduled maintenance is completed, or other maintenance activities are completed.

#### 4.9 Criteria for reporting

The following criteria will be used to open, modify, close or delete an EMRS or USOS report:

- a. OPEN outage report – When equipment fails within the required reporting time specified
- b. MODIFY outage report – When conditions change and additional information is available
- c. CLOSE outage report – Within three hours after equipment has been restored
- d. DELETE outage report – When outage has been inadvertently or incorrectly generated

#### 4.10 Daily Outage Reports

Daily Outage Reports will be issued once a day via email to a designated distribution list. The report will automatically be generated by EMRS and will include all open outages within EMRS. The report will also include any outages that were closed/committed the previous day. A sample report is included in Appendix B.

**APPENDIX A**



## APPENDIX B

### EMRS A-26 LOG REPORT-- PACIFIC REGION

EMRS A-26 Log Report, New A-26 Documents -- 02/08/2019

No#	WFO	Document Number	SID	Equip	Serial Number	Maintenance Description	Maintenance Comments	Status	Open Date Time	Date Last Updated	Submitted By	Assigned To
1	ITO	AOMC902060128	KOA	ACL31	E0830087	Opened ticket. AOMC dialed into the site and found 1 dq error on CL31 #1WFO HFO (Honolulu, HI)POC (PD) notified.	Closed Ticket. Tech (SB) r/c errors from a warm start	ON HOLD	02/06/2019 12:58:00 AM	02/07/2019 03:41:31 AM		

EMRS A-26 Log Report, Current Open A-26 Documents -- 02/08/2019

No#	WFO	Document Number	SID	Equip	Serial Number	Maintenance Description	Maintenance Comments	Status	Open Date Time	Date Last Updated	Submitted By	Assigned To
1	GUM	GUM180109000	GUM	SUTRON9210	001	Apra Harbor SUTRON site requires corrective maintenance for: Precip cover allen cap screws, barbed wire on gate, conduit replacement, and tower security check and tightening.		ON HOLD	01/09/2018 06:00:00 PM	01/10/2018 01:52:12 PM		
2	GUM	GUM180109003	ROTP7	SUTRON9210	001	Rota SUTRON site requires corrective maintenance for: replacement of enclosure, and tower inspection/lightening.		ON HOLD	01/09/2018 02:00:00 PM	01/10/2018 02:22:13 PM		
3	GUM	PMI18050100395	GUM	FMISC	001	SURFACE: 36 Month PMI: Order and replace all Sutron batteries. 12V 29 amp hour rated. Due every three years. Sites - MER, APRA, INA, MANG, TIN, ROTA.	Batteries purchased. Pending maintenance trip to site(s).	ON HOLD	05/01/2018 12:00:00 AM	07/09/2018 11:08:39 AM	EDWARD.DAVID	ELTEC
4	GUM	PMI18080100475	GUM	FMISC	001	SURFACE: 60 Month PMI: Order and replace coin battery (BR2330) on all Sutron sites - MER, MANG, APRA, INA, TIN, ROTA, KOS, PAGAN, ULITHI. Due every 5 years.	Battery replaced on all Sutrons.	ON HOLD	08/01/2018 12:00:00 AM	07/29/2018 06:00:03 PM	EDWARD.DAVID	ELTEC
5	GUM	PMI18080100478	GUM	HOGEN2	00A	UPPER AIR: Annual PMI: Hogen and Aqua.		ON HOLD	08/01/2018 12:00:00 AM	07/29/2018 06:00:03 PM	EDWARD.DAVID	ELTEC
6	GUM	PMI18100100414	GUM	TWRS	001	FACILITIES: Annual PMI: Annual Rescue training and general inspection of WFO towers.		ON HOLD	10/01/2018 12:00:00 AM	09/28/2018 06:00:03 PM	EDWARD.DAVID	FAC
7	GUM	GUM180109002	GUM	SUTRON9210	001	Merizo SUTRON site requires corrective maintenance for: Enclosure replacement.		ON HOLD	01/09/2018 10:00:00 AM	10/03/2018 12:48:18 PM	EDWARD.DAVID	ELTEC
8	GUM	GUM181024002	GSN	ADCP	001219	ASOS DCP communications and sensors damaged due to Typhoon Yutu (10/25/18). Site requires extensive assessment and restoration. Due to severity of storm, logistics, and travel - large amount of downtime is expected.	Contacted atc supervisor Gerald Mendiola. Power in tower is currently down due to failed generator. There is also no power on airfield. Site assessment scheduled for 1 Nov. Initial assessment and communications restored on 1 November. All sensors except PRWX, VIZ, and DTS are operational.	ON HOLD	10/25/2018 07:30:00 AM	11/16/2018 08:09:13 AM	EDWARD.DAVID	ELTEC
9	GUM	MNT1811190273	GSN	AIFWS	A0581	ASOS: Visually inspect the entire exterior pole at the pivot pin. Inspect for signs of corrosion and rust. Inspect the bolt at the bottom of the pole to ensure there is not excessive rust or corrosion. If the pivot pin has already been deemed un-safe, do not tilt the pole. Notify supervisor if result deems the pole un-safe.	Inspected the ASOS tilt-over towers in order to identify corrosion on the pivot pin. I.A.W. ASOS Maint Note 109	ON HOLD		11/20/2018 05:39:33 AM		
10	GUM	GUM181029001	PGWT	SUTRON9210	001	Tinian Sutron tower destroyed during typhoon Yutu. return to service unknown. Requires complete replacement.		ON HOLD	10/30/2018 09:11:00 AM	11/28/2018 01:26:25 PM	DONALD.KOHLER	ELTEC
11	GUM	GUM181029000	MTUP7	XMRT	WXM86	(Single Transmitter Outage MTUP7) Site tower blown down during typhoon Yutu. Also, backup generator is down, return to service date/time unknown.		ON HOLD	10/30/2018 07:28:00 AM	11/28/2018 01:26:46 PM	EDWARD.DAVID	ELTEC
12	GUM	GUM181127001	ROTP7	SUTRON9210	001	Rota Sutron not transmitting. Tower took damage and several sensors lost. Significant repairs required to restore to service.		ON HOLD	09/12/2018 10:01:00 AM	11/28/2018 01:37:28 PM	EDWARD.DAVID	ELTEC
13	GUM	GUM181127003	GSN	ACL31	E1530158	PGSN ASOS CL31 damaged due to Super Typhoon Yutu. Sensor requires further evaluation		ON HOLD	10/26/2018 01:00:00 AM	11/28/2018 02:02:52 PM	EDWARD.DAVID	ELTEC