

<u>Table of Contents:</u>	<u>Page</u>
Scope.....	2
Definitions.....	2
Roles and Responsibilities.....	3
Process.....	4

Appendices

A - EMRS Maintenance Request Form.....	A-1
B - Sample Daily Outage Report.....	B-1

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 Koror, 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.

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.

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.

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.

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.

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), Console Replacement System (CRS), NOAA Weather Radio (NWR), Automated Surface Observation System (ASOS), Radiosonde Replacement System (RRS), hydrogen generators, telecommunications, data collection platforms, facilities and IT infrastructure.

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. Detailed instructions on using EMRS can be found in the NWS Engineering Handbook Number 4 at https://ops13jweb.nws.noaa.gov/emrs/help/PDF_Files/securefolder/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 Console Replacement System (CRS), 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 OPSnet 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 submitted in EMRS as required. 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

The screenshot shows a web browser window with the following content:

- Address bar: <https://ops13web.nws.noaa.gov/> - Maintenance Request Form - PBP, HONOLULU, HI :: DEREK CHING - Windows Internet Explorer
- Navigation menu: Retrieve Maintenance Requests | Equipment Status | EMRS Account Admin | Print | Help
- Section Header: **ENGINEERING MANAGEMENT REPORTING SYSTEM**
Maintenance Request and Unscheduled System Outage (USOS) Reporting
- Form Fields:
 - *WFO: PBP (dropdown)
 - *Document No.: PBP110920000 (text)
 - Open Date: 09/20/2011 (calendar icon)
 - Open Time: 08:39 (radio buttons for Local and UTC)
 - *Initials: (text)
 - Response Priority: Immediate, Low, Routine, Not Applicable
 - *Maintenance Description: 500 characters left (text area)
 - *Program: (dropdown)
 - *Station ID: (dropdown)
 - Equipment Code: (dropdown)
 - Trouble Ticket #: (text)
 - Work Order/Maint. Request for: Region Headquarters, Electronics, WFO/Office, Facilities, Maintenance Contractor
 - Estimated Cost or Bid: \$ (text)
 - Requested Completion Date: (calendar icon)
- Buttons: Submit, Reset, Cancel
- Status bar: Done, Trusted sites | Protected Mode: Off, 100%

APPENDIX B

EMRS A-26 LOG REPORT -- PACIFIC REGION

EMRS A-26 Log Report, Current Open A-26 Documents -- 12/17/2010

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	GUM01203002	GUM	SECRTY	001	All three security camera locations are not working properly. Both external cameras are not sending imagery to the monitor on the operations floor. The security camera located inside the front entrance sends imagery to the monitor, but the image is of poor quality and flickers. This could be a lingering after effect of the lightning strike of 15 AUG 2009.		ON HOLD	12/03/2010 09:25:00 PM	12/03/2010 07:35:59 PM	CARL.MCELROY	ELTEC
2	GUM	GUM01215002	PTTP			please send me this part for a nissan frontier truck: V.I.N. #1N6ED25Y0YC344826, V6w/air condition, 2000 year model,		ON HOLD	12/16/2010 10:19:00 AM	12/15/2010 10:22:05 PM	TOSHIO.AKINAGA	
3	GUM	GUM01215001	PTTP			CRS Shelter is rotten and is falling apart. please send us a spare if possible.	Part put on order with NLSC. None in stock, and had backorder quantity of 15. Might be a while before this order is fulfilled.	ON HOLD	12/16/2010 10:06:00 AM	12/15/2010 10:47:15 PM	TOSHIO.AKINAGA	REGHQ
4	GUM	GUM01215000	GUM			Inarajan Handar last reported on 12/2351 (1151am Dec 13).		ON HOLD	12/16/2010 08:15:00 AM	12/16/2010 12:33:31 AM	GENEVIEVE.MILLER	ELTEC
5	GUM	GUM01216000	GSN	ADCP		Failure on 1088 and DCP system of Saipan ASOS.		ON HOLD	12/17/2010 12:10:00 AM	12/16/2010 05:59:46 PM	MIKE.MIDDLEBROOKE	
6	ITO	HFO00305000	NSTU	FMISC		Upolu Airport MWT MW88 started reporting bad data on March 4 0925Z of 55 to 59 kt.		DEFERRED	03/04/2010 09:15:00 PM	08/25/2010 09:24:00 PM	DEREK.WROE	STEPHEN.BUTLER
7	ITO	HFO00307000	UPLH1	MWT	HI-88	Upolu Airport (MW88) winds have been reading to high. 080325Z winds reading 06056G60KT		DEFERRED	03/07/2010 06:17:00 PM	08/25/2010 09:26:31 PM	MARK.FARNSWORTH	ELTEC
8	ITO	HFO80815000	UPLH1			HI-88 Upolu Airport. No data received. Phone line to site is busy.		DEFERRED	08/15/2008 09:36:00 AM	08/25/2010 09:28:12 PM	KEVIN.KODAMA	STEPHEN.BUTLER
9	ITO	HFO00823001	KWEH1	MWT	HI-89	Call from a user on the Big Island, MW89 Kawaihae winds not working. 00000KT	Need certified climber to replace sensors atop tower.	ON HOLD	08/23/2010 04:00:00 AM	09/28/2010 04:00:43 PM	MARK.FARNSWORTH	STEPHEN.BUTLER
10	ITO	ITO01122000	SOPH1	ARC		SOPH1. South Point ARC. Wind data unrepresentative. Wind speed and direction all reporting zero since Nov 14.		ON HOLD	11/22/2010 03:40:00 PM	11/24/2010 03:11:40 PM	KEVIN.KODAMA	STEPHEN.BUTLER
11	ITO	ITO01130000	HKNH1			HI-87 Honokaa. Data coming in inconsistently. MWT answers call intermittently.		ON HOLD	11/30/2010 03:09:00 PM	12/14/2010 07:21:27 PM	KEVIN.KODAMA	STEPHEN.BUTLER
12	LIH	LIH01115000	HNIH1	LARC		HI-45 Hanalei. No data received. LARC doesn't answer call.		ON HOLD	11/15/2010 02:38:00 PM	11/28/2010 02:36:47 PM	KEVIN.KODAMA	DANIEL.HARRIS
13	LIH	LIH01127000	POIH1			Winds not reporting.		ON HOLD	11/27/2010 05:34:00 PM	11/28/2010 02:37:26 PM	LARISSA.JOHNSON	DANIEL.HARRIS