SUBJECT **BOSS WORK MANAGEMENT HURRICANE PREPARATION AND RECOVERY PLAN (WCC-P-2004)**

PURPOSE

This procedure establishes the process for BOSS Work Management hurricane preparedness, response, and post hurricane recovery.

SCOPE AND APPLICABILITY

This procedure applies to Work Management operations and personnel and will be followed in preparation for a Hurricane response and upon activation of the Kennedy Space Center (KSC) Emergency Operations Center (EOC) for a hurricane. Work Management employees shall comply with EMP-P-0001, Hurricane Operations for specific details on evacuation and return to work procedures.

PROCESS

1. COMMUNICATIONS

When a hurricane threatens the area, Work Management employees shall follow the instructions communicated by the KSC Hurricane Coordinators, as well as monitor the storms progress from local and national weather reports.

2. HURRICANE PREPARATION

2.1. General Preparation

Prior to Hurricane season Work Management shall:

- Designate a primary and alternate BOSS Hurricane Coordinator to comply with the Hurricane Operations Procedure and provide names of designees to Safety, Health and Training Branch.
- Maintain a detailed Hurricane Checklist for use in hurricane preparations and recovery activities; reference WCC-F-2009, Work Management Hurricane Operations Checklist.
- Identify mission essential personnel and submit names to the BOSS Hurricane Response and Recovery Team Chief (RTC) upon request.
- Designate Damage Assessment and Recovery Team (DART) and Damage Assessment Team (DAT) members.
- Maintain stock of plastic bags and supplies to protect electronic and office equipment.

2.2. Hurricane Work Order Generation

2.2.1. Hurricane Preparation

Work Receipt shall generate Hurricane Preparation Work Orders for all BOSS Organizations and Hurricane Teams to include: Facility, Systems, Equipment and Utilities (FSEU), Logistics, and Engineering. These work order numbers (WON) shall be initiated and made available in Maximo 30 days prior to Hurricane Season (or no later than May 1). Work related to hurricane preparation should be charged against these WONs.

2.2.2. Damage Assessment

Work Receipt shall generate Hurricane Preparation Work Orders for the Ride-Out Team (ROT), Damage Assessment and Recovery Team (DART), Damage Assessment Team (DAT), and Evacuation WONs. This work order shall be initiated and made available in Maximo 48 hours prior to evacuation activity.

2.3. Hurricane Work Order Funding

In preparation for post hurricane related repairs, the Work Receipt Supervisor shall coordinate with NASA to obtain charging directions at the earliest feasible time prior to initiation of HURCON IV, i.e., when a named storm has potential to impact Florida.

3. HURRICANE RESPONSE

Once the Kennedy Space Center Emergency Operations Center is activated for a hurricane, the designated Work Management Manager shall initiate Hurricane Operations Checklist in preparation for hurricane operations.

3.1. HURCON IV

When HURCON IV is declared the Work Management Manager will begin preparation activity using the Hurricane Checklist, ensure personnel are notified of the HURCON status and ensure assignment of personnel with DAT duties are in place. Begin initial securing of facilities, general cleaning and securing loose items begins.

3.2. HURCON III

When HURCON III is declared, personnel will be issued hurricane supplies and when instructed will begin back-up of computers and securing office equipment. Where practical move desks and files away from window and doors, lower window blinds and raise electronic equipment from the ground. All electrical items will be powered down and disconnected.

3.3. HURCON II

All securing actions shall be completed prior to evacuation and notification of completed checklist items will be made to the Division Hurricane Coordinator (DHC).

4. EVACUATION

In accordance with EMP-P-0001, employees will not be released from duty until directed by the BOSS Program Manager and with concurrence by their immediate supervisor.

Work Management Supervisors will brief their direct employees on return to work actions and ensure accuracy of contact information and expected evacuation location.

5. RECOVERY

Work Management employees designated for recovery operations will participate in damage assessment, reference EMP-P-0001.

5.1. Damage Assessment and Recovery Team (DART) and Damage Assessment Team (DAT)

Work Management designees from Integrated Planning & Estimating (P&E) assigned to the Damage Assessment and Recovery Team (DART) and Damage Assessment Team (DAT):

5.1.1. Call 861-7900 or 866-572-4877 for DART and DAT reporting instructions

5.1.2. Upon recall of the DART and DAT, report to the KSC Training Auditorium for instructions and Team assignments by the Damage Assessment Coordinator (DAC). Driving to or from KSC during dark hours is forbidden

5.1.3. Perform damage assessment and estimates of facilities utilizing EMR-F-0015, Damage Assessment Worksheet Field Report.

5.1.4. Report facility conditions to the Damage Assessment Team (DAT), located in the Launch Control Center (LCC) K6-0900, Cubicle 1R37.

5.1.5. Review all damage assessment reports. Depending on the scale of work required for the repair, route to either Work Receipt or the Duty Office for processing in accordance with, WCC-P-0004, BOSS Work Management Procedure.

- Work that is non-emergency, requires planning, contains configured systems, subcontract work or extended scope expected to exceed 64 man-hours, but not to exceed $15,000 in materials shall be routed to Work Receipt.
- Work meeting the definitions of an Emergency Trouble Call (ETC), Routine Trouble Call (RTC) and that does not require planning shall be routed to the Duty Office.

5.1.6. Forward Damage Assessment Reports to DAT personnel to be entered into the Damage Assessment Recovery System (DARS) database.

6. RETURN TO WORK

6.1. Hurricane Work/Repair Processing

6.1.1. Trouble calls shall be directed to the Duty Office when KSC reopens and shall be processed in accordance with MSO-P-0010, Duty Office Operations.

6.1.2. P&E will provide the DARs report of large-scale repairs to DAT for processing into the Electronic Support Request (ESR) application.

6.1.3. Work Receipt will process the ESRs in accordance with WCC-P-2003, Electronic Support Request and WCC-I-0007, Work Receipt Instruction.

6.2. Special Work Evaluation Board

The WEB is an electronic process to review, screen, evaluate and disposition new work requests. Supporting departments include NASA TA, Safety, Environmental, Configuration Management, Design Engineering, Planning & Estimating, and System Maintenance Engineering (reference WCC-P-2003).

Following a hurricane, a special WEB will be convened to review Hurricane Work Requests for preliminary determination of:

- Work Classification
- Identification of the recipient organization performing the work
- Funding Source
- Department/Shop involved
- Work Priority
- Condition Assessment Codes (CAC) for Safety Urgent or Emergency requests

Work Receipt shall issue a WON for approved hurricane related work using Hurricane Funding.

RELEASED – Printed documents may be obsolete; validate prior to use

RECORDS

The following records are retained by the organizations listed below:

Record	Responsible Organization
Hurricane Preparation Work Orders	Engineering/Document Closure
WCC-F-2009, Work Management Hurricane Operations Checklist	Work Management
EMR-F-0015, Damage Assessment Worksheet Field Report	Engineering/Document Closure

AFFECTED DIVISIONS

FSEU

MANAGEMENT ROLES AND RESPONSIBILITIES

Mission Support Manager: Ensures compliance within the Division to the requirements stated in this procedure.

Work Control Manager: Designates primary and alternate Organizational Coordinator to comply with the Hurricane Operations Procedure and designates personnel to the DART and DAT. Ensures compliance within Work Management to the requirements stated in this procedure.

WCC Supervisors: Ensures the requirements of this procedure are communicated and understood by subordinate personnel.

FUNCTIONAL ROLES AND RESPONSIBILITIES

Organizational Line Coordinator

- Plan and communicate with FSEU Division Hurricane Coordinators (DHC)
- Attend Hurricane Coordinator Training as requested by KSC EOC
- Inform the Branch Manager of the actions by the KSC Emergency Preparedness team
- Maintain an updated employee roster containing anticipated evacuation location and contact phone numbers
- Secure keys for Government vehicles
- Complete the Hurricane Checklist

Work Receipt

- Load Hurricane Preparation WONs in Maximo
- Obtain unique funding information for Hurricane Preparations and Post Hurricane Work
- Process hurricane repair work orders
- Convene a special Work Evaluation Board for review, approval and assignment of work

Integrated Planning and Estimating

- Support the DART and DAT as assigned
- Review Damage Assessment Reports for determination of routing to Work Receipt or Duty Office

REFERENCE DOCUMENTS

The following documents are referenced in this procedure:

Document Number	Title
EMP-P-0001	Hurricane Operations
EMP-F-0015	Damage Assessment Worksheet Field Report
MSO-P-0010	Duty Office Operations
WCC-F-2009	Work Management Hurricane Operations Checklist
WCC-I-0007	Work Receipt Instruction
WCC-P-0004	BOSS Work Management Procedure
WCC-P-2003	Electronic Support Request

ACRONYMS

BOSS	Base Operations and Spaceport Services
CIF	Central Instrumentation Facility
D/O	Duty Office
DAC	Damage Assessment Coordinator
DARS	Damage Assessment Recovery System database
DART	Damage Assessment and Recovery Team
DAT	Damage Assessment Team
DHC	Division Hurricane Coordinator
DTS	Direct to Shop
EOC	Emergency Operations Center
ESR	Electronic Support Request
ETC	Emergency Trouble Call
FSEU	Facilities, Systems, Equipment and Utilities
HURCON	Hurricane Condition
ISO	Internal Service Order
KSC	Kennedy Space Center
NASA	National Aeronautics and Space Administration
P&E	Planning & Estimating
RTC	Routine Trouble Call
WON	Work Order Number

DEFINITIONS

Direct to Shop (DTS): Work dispatched directly to the shop for implementation. This work may be initiated by Schedulers as repairs identified during PM/PTI activities or by users/requesters requested via the Duty Office. DTS may also be work that is not coded as repairs (Service Order work for instance) but is of such limited scope or impact that no detailed planning support is necessary. Typically, the total cost do not exceed $2,000.

Emergency Trouble Call (ETC): Emergency trouble calls require immediate action to eliminate hazards to personnel or equipment, to prevent loss or damage to Center property, or to restore essential services that have been disrupted. This category does not apply to non-facility work requirements.

HURCON IV: The initial notification and preparation phase for hurricane force winds of 50 knots forecast to arrive within 72 hours.

HURCON III: Preparation and evacuation phase when hurricane force winds of 50 knots are forecast to arrive within 48 hours.

HURCON II: Phase when hurricane force winds of 50 knots are forecast to arrive within 24 hours.

Internal Service Order (ISO): is a non-maintenance item, services that are not considered repairs or recurring maintenance

Routine Trouble Call (RTC): Routine trouble calls are work initiated to correct maintenance or operational issues that are not considered an immediate threat to health, safety or minor facility problems that are too small to estimate.

REVISION RECORD

The following revisions have been applied to this document:

Revision Number	Change Description	Date
0	BOSS Initial Release	04/01/2019

DOCUMENT APPROVAL

Original signatures on file

Expired certificate

X Richard P Tully

Richard P Tully
Manager, Work Control
Signed by: cards

Expired certificate

X Barbara White

Barbara I White
Manager, Mission Support
Signed by: cards