

**INTERDEPARTMENTAL COMMITTEE FOR METEOROLOGICAL SERVICES AND
SUPPORTING RESEARCH (ICMSSR)**

**WORKING GROUP FOR TROPICAL CYCLONE OPERATIONS AND RESEARCH
(WG/TCOR)**

Meeting 2019-1

Tuesday March 12, 2019

The Rosenstiel School of Marine and Atmospheric
Science at the University of Miami, Miami, Florida

1. OPENING REMARKS

The WG/TCOR Executive Secretary, Mr. David Chorney provided opening remarks and reviewed the agenda.

2. OLD ACTION ITEMS

Dr. Mark DeMaria, WG/TCOR Chair, reviewed open action items.

- Proposed Retiring of NOAA/NESDIS/SAB Dvorak Classification.

NESDIS / OSPO will continue to provide worldwide ADT products they will continue to evaluate the SAB Dvorak product and have engaged senior NWS leadership on this dialog. This process is still being worked, and there are no planned changes for this hurricane season. **Action Item is closed.**

- Prototype/Experimental use of JTWC forecasts in producing NWS-Style tropical cyclone graphic products for Western and South Pacific basins.

The graphical products are being produced but not widely disseminated. FEMA was the original customer, but others may be added in the future. **Action Item is closed.**

- Removal of synthetic data from dropwindsondes.

NHC will contact NCAR to withdraw their request for synthetic humidity data. Jason Dunion confirmed the software was modified by NCAR to remove the synthetic data. **Action Item is closed.**

1. NEW RECOMMENDED ITEMS

- **Protocols for UAS Flights Concurrent with Weather Reconnaissance Missions by Manned Aircraft. (Steve Feuer, CARCAH; Joseph Cione, NOAA/AOML/HRD; and Jason Dunion, NOAA/AOML/HRD-CIMAS).**

Manned large UAS (Global Hawk) and small unmanned UAS (Coyote, Aerosonde) missions in tropical cyclones have been increasing over the past few years and will continue to increase in the future. The NHOP does not adequately capture the required

coordination with the operational aircraft missions. The issues are complex and may require an ad hoc committee to propose solutions and NHOP updates.

Action Item: OFCM will inform the ICMSSR of this issue and request that the JAG/UAS be reactivated. CARCAH, HRD, NASA, NOAA, FAA and other agencies as appropriate, will be asked by OFCM for representatives for the JAG if approved by the ICMSSR.

- **NHOP changes (46) with no discussion needed: 2-12, 14-17, 20-23, and 25-51.**

Approved.

- **NHOP-1 Amendment to dropsonde usage for NHC-tasked recon missions. Submitter: Jason Sippel, Hurricane Research Division (HRD)**

Changes were made to the 2018 NHOP to add end-point drops for NHC-tasked missions into TCs. The original intention of those changes was to have a set of 4 dropsondes for each synoptic time for which a center fix was available, but a misunderstanding of recon procedures led to a set of dropsondes only on the first alpha pattern. For the many missions that cover multiple synoptic times, this meant that dropsondes did not cover the second synoptic time the flight was tasked for.

Action recommended: Upon consultation with CARCAH, the most straightforward remedy to this situation is to amend section 5.8.1.1 of the NHOP as follows. Change “Vertical dropsondes observations are also required at the beginning and the turn points of an initial ALPHA pattern” to “Vertical dropsondes observations are also required at the beginning of the initial APLPHA pattern and every subsequent turn point”.

Action: Approved with minor changes to be coordinated and provided by Jason Sippel.

- **NHOP-13 Area of responsibility clarification. Submitter: Major Chris Dyke, USAFR and 53WRS.**

It has become common practice for leg lengths to be modified to focus reconnaissance efforts on specific areas of interest within the storm environment. Additionally, it has become common to request legs along cardinal headings. Modification of verbiage will manage expectations for non-standard leg operations.

Action recommended:

Modify para 5.8.1.1. From: “...Legs will normally be 105 nm long and flown on intercardinal tracks...” Change to: “...Legs will normally be 105 nm long unless modified to meet operational needs and will normally be flown on intercardinal tracks...”

Action: Approved.

- **NHOP-18/19 Tropical Program AFS26. Submitter: Joel Cline (NWS) (4 Parts)**

Part 1. Several other tropical cyclone related products are issued to support the tropical cyclone forecasting and warning program. Refer to NWS Instruction 10-601 for further details on these products.

Action recommended:

Add “Graphic” after “Cumulative Wind Distribution”; Add “Arrival of Tropical-Storm Force Winds Graphic” to the list of products.

Action: Approved.

Part 2. Replace Figure 4-4 with the TCM in [this link](#) which shows the change that allows NHC/CPHC to issue a 64-kt wind radii forecast at 48h.

Action recommended: The Hurricane Warning definition on p N-3 needs to be updated to remove the flooding criteria (we’ve removed all of the “water”; hazards from the hurricane warning definition). Use the definitions from NWSI 10-604.

Action: Approved.

Part 3. NHC and CPHC issuance of Continuance of Advisories and Products for Potential Tropical Cyclones and Post- Tropical Cyclones. The NHC and CPHC have the option to issue advisory products for disturbances that are not yet a tropical cyclone, but which pose the threat of bringing tropical storm or hurricane conditions to land areas within 48 hours. These systems will be designated as “potential tropical cyclones” and will be numbered in the same fashion as tropical depressions.

The NHC and CPHC will continue issuing advisory products after a tropical cyclone becomes post-tropical in those cases where the system continues to pose a significant threat to life and property and where the transfer or responsibility to another office would result in an unacceptable discontinuity of service. Similarly, WFO Guam will continue issuing advisory products after a tropical cyclone becomes post-tropical in those cases where the system continues to pose a significant threat to life and property.

Action recommended: Mark DeMaria will follow up with AFS on what is being proposed.

Action: Approved.

Part 4. Section 5.5.2.5 of the NHOP be changed as follows: NOAA WP-3D availability. At least one WP-3D will be operationally configured (per paragraph 5.4.7) and available to respond to requirements within 24-hours from June 1 through November 30 annually. A second WP-3D with the same operational configuration should be available each hurricane season from July 15 to September 30 as a redundant platform for the first WP-3D. When maintenance and programmatic considerations permit, the second aircraft could be made available until November 30 also. The frequency of flights with one or both aircraft available and with present staffing shall be every 12 hours.

Action recommended: The wording that “NHC has stated that it no longer needs them (P3s) to perform reconnaissance missions” is inaccurate and should be struck.

NHC would like to propose that the second P3 be available for hurricane recon tasking from 1 August through 31 October.

Action: NHC and AOC should coordinate on this tasking. Approved.

- **NHOP-24 Coordination with CARCAH for Operational Drifting Buoy Deployments Requests Ahead of TCs. Submitter: Steve Feuer and Warren Madden, CARCAH.**

There has occasionally been some confusion about coordination of NOAA operational drifting-buoy deployment requests with CARCAH for the 53 WRS to accomplish ahead of TCs, especially when new personnel are involved and unfamiliar with the process. Additional content in NHOP 9.2.1 should help clarify the procedure.

Action recommended: Modify NHOP para. 9.2.1 to include two new sentences (provided) and add new Figure 9-1 (Example Buoy Tasking Order).

Action: CARCAH and HRD should coordinate and submit the changes needed. Approved.

3. OPEN DISCUSSION

It was recommended that the word “circulation” rather than “core” be used in Chapter 4 requirements. Another clarification is to change the term “potential storms” to “storms potentially” affecting the U.S.

Action: Approved. Wording in NHOP will be updated by Jason Sippel accordingly.

4. ACTION ITEM REVIEW/NEXT STEPS/CLOSING COMMENTS

A small group will review the Action Items and report on them tomorrow.

The deadline for all NHOP changes to be sent to OFCM is 15 April.

Meeting adjourned at 4:45 PM.

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ACTION ITEMS

Action Item 2019-1.1: OFCM will inform the ICMSSR of the “Protocols for UAS Flights” issue and request that the JAG/UAS be reactivated. CARCAH, HRD, NASA, NOAA, FAA and other agencies as appropriate will be asked by OFCM for representatives for the JAG if approved by the ICMSSR.

Responsible Office: OFCM

Due Date: June 1, 2019

Action Item 2019-1.2: AFS input is needed on NHC and CPHC issuance of Continuance of Advisories and Products for Potential Tropical Cyclones and Post- Tropical Cyclones.

Responsible Office: AFS

Due Date: June 1, 2019

Action Item 2019-1.3: NHC and AOC should coordinate on the tasking process for requesting the second WP-3D for reconnaissance support.

Responsible Office: NHC/AOC

Due Date: June 1, 2019

Action Item 2019-1.4: CARCAH and HRD should coordinate and submit the changes needed for Operational Drifting Buoy Deployments requests ahead of TCs.

Responsible Office: CARCAH/HRD

Due Date: June 1, 2019

Action Item 2019-1.5: All changes for the 2019 NHOP should be sent to arrive at OFCM not later than 15 April 2019. OFCM will publish the updated NHOP on 1 May 2019.

Responsible Office: OFCM

Due Date: June 1, 2019

Action Item 2019-1.6: For the 2020 TCORF OFCM will add a session that reports on HAFS development.

Responsible Office: OFCM

Due Date: March 1, 2020