



341st Operations Support Weather

Differences between Armed Services Aviation Support and NWS Aviation Support for Military Pilots

**This briefing is
UNCLASSIFIED**

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29 May 2020**



Overview

- **Armed Services Aviation vs NWS Aviation Support**
 - **Products Provided**
 - **Difference comes down to mission focus**
 - **USAF Mission Thresholds**
 - **Mission Classification & Value of what Aircraft carry**
 - **Weather view**
 - **Ground observations in remote locations**
 - **Air refueling**
 - **Deployed Weather**
 - **Hurricane Hunters**



Products Provided

- **Similar products provided & tools for weather analysis**
 - **Weather Brief's**
 - **Mission Weather Products**
 - **Flight Weather Briefing (175-1s)**
 - **Mission Execution Forecast (MEF)**
 - **Weather brief tailored to a pilot's flight plan**
 - **Tools**
 - **Air Force Weather Website (AFW-WEBS)**
 - **557th Weather Wing**
 - **Gibson Ridge radar**
 - **Mark IV-B Satellite**
 - **Significant Meteorological Information (Sigmets)**
 - **Airmen's Meteorological Information (Airmets)**
 - **Pilot Report (Pireps)**



USAF Mission Thresholds

- **Aircraft categories**
 - Tailored weather products for USAF mission thresholds
 - Specific for turbulence, take-off, and landing
- **Ceilings & Visibility**
 - Intel, Surveillance, Reconnaissance (ISR)
 - Need for Close Air Support (CAS)
 - Air-to-ground strikes
 - Search and Rescue (SAR)
- **Greater potential to divert aircraft to more mission essential locations mid-flight**
 - Divert aircraft doing ISR for CAS
 - Medevac purposes



Classification & Value

- **Some missions are secret in nature**
- **Value of what is carried on each aircraft**
 - **Warfighting equipment, people, explosives, and humanitarian aid**



Weather View

- **Air Force weather operations extend throughout every continent**
 - **USAF Operational Weather Squadron (OWS)**
 - **Weather Flight (WF)**
 - **Detachment (DET)**
- **NWS operations are located within the United States and the territories of Guam and Puerto Rico**
 - **NWS regions and Weather Forecast Offices (WFO)**
 - **Research covered world-wide**
- **Air re-fueling**
 - **Limited to specific air re-fueling tracks**
 - **Need to determine if a Pilot's flight level is conducive for both types of aircraft involved**
 - **Forecasting for icing, turbulence, clouds, for both aircraft**
 - **Capabilities extend to deployed locations**



Deployed Weather Support

- **Are the Airfield weather operations focal point**
- **Weather integrated with operational missions**
 - **Weather that actually conducts maintenance on their own sensors and deployable radar OPUPS**
 - **USAF weather also contracts out next generation sensors as a testing bed for more accurate weather data/model improvement**
 - **Record climatology for austere environments**
 - **Weather may be some of the first on the ground at new locations, setting up for support. (New Airfield)**



Hurricane Hunters

- **53rd Weather Reconnaissance Squadron**
 - The military can perform weather support in the air with certain aircraft.
 - NWS is military weather forecasters go to for hurricane info
 - Recommendation on timing to shelter in place
 - weather personnel give the base commander the go ahead to return to the base
 - The plane WC-130J





Conclusion

- A lot of similarities in weather analysis products provided
- However, Military weather forecasts for exact mission thresholds, causing forecasts to be tailored for mission limitations.
- NWS does not tailor to mission support so the aviation forecast reported can be differ.
- A lot of weather integration happens to support many kinds of missions, in the United States and deployed.
- The Hurricane Hunters conduct tropical storm reconnaissance with pilots flying WC-130J.



Questions?

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