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

This briefing is UNCLASSIFIED

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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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