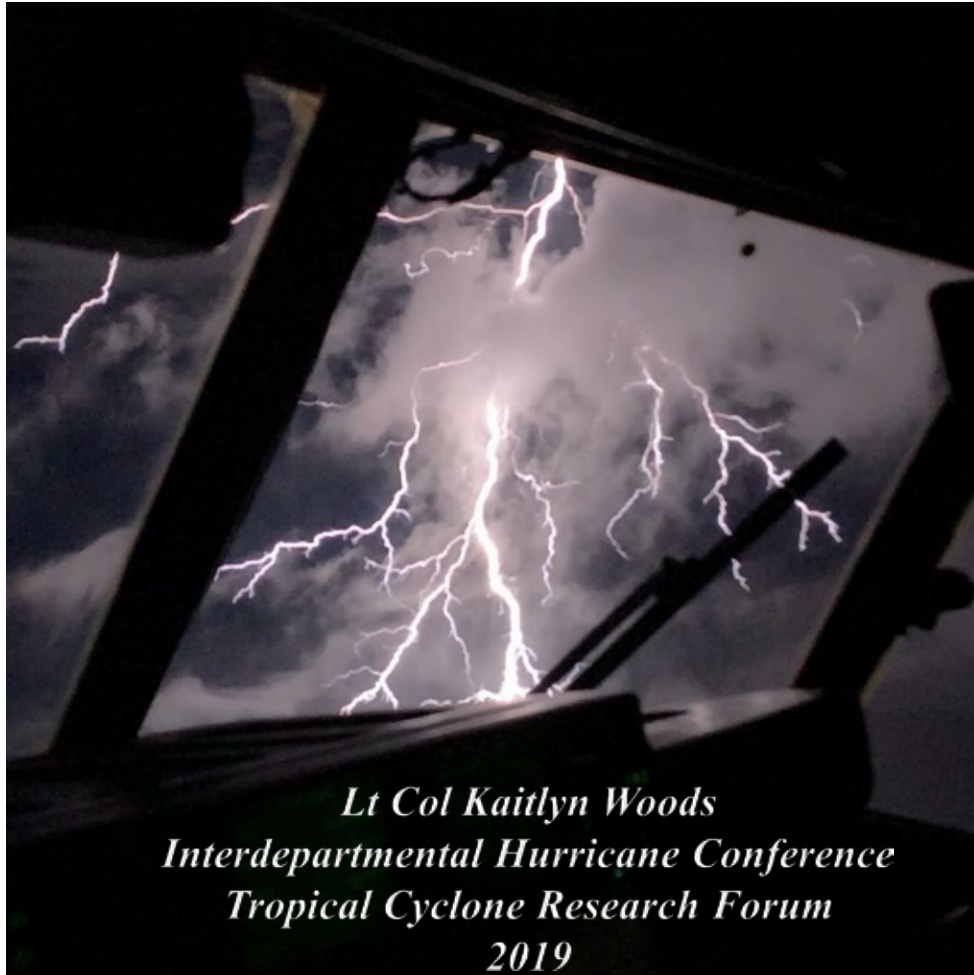




53rd Weather Reconnaissance Squadron 2018 Working Group



*Lt Col Kaitlyn Woods
Interdepartmental Hurricane Conference
Tropical Cyclone Research Forum
2019*

Integrity - Service - Excellence



2018 OFCM Working Group for Weather Reconnaissance Requirements



WG-AR meeting at NHC Tuesday 27 November, 2018.

Attendees:

David Chorney OFCM

Kaitlyn Woods 53rd

Chris Dyke AFRC HQ

Stephen Meunier AFRC HQ

Beth Sanabia Air/SEA NAV/OCEANO

Steve Jayne US Coast Guard

Mike Brennan NHC

Chris Landsea NHC

Frank Marks HRD

Robert Rogers HRD

Jon Zawislak HRD

Jason Sipple AOML/HRD

Avichal Mehra NCEP/EMC

Jack Parrish AOC

Terry Hock NCAR

Laura Tudor NCAR

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2018 OFCM Working Group for Weather Reconnaissance Requirements

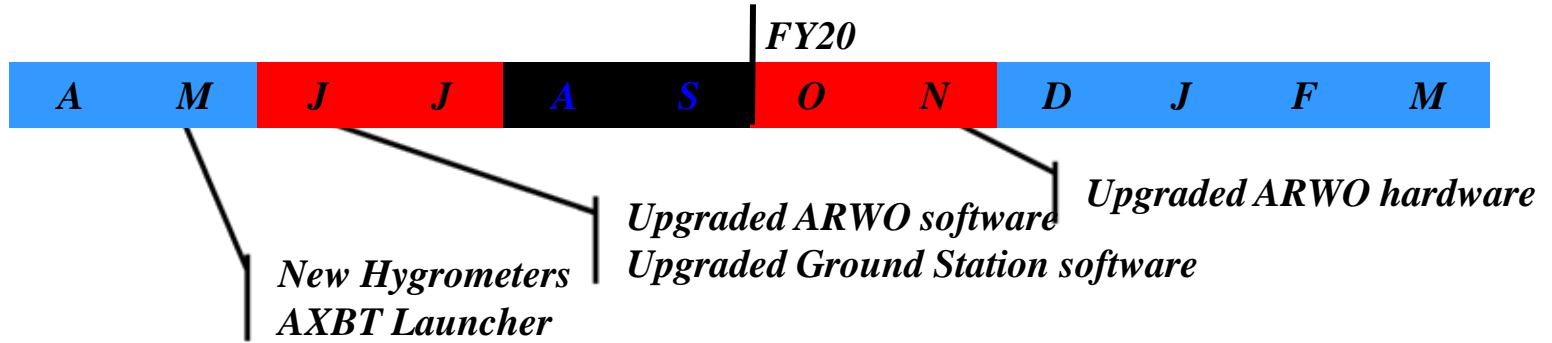


Requirements	Equipment
Swath of surface winds speeds (not just a point)	2, 3, 7
3D wind including clear air (Vertical and Horizontal)	1,4,6,8
3D Temp, Moisture	3, 6,7,8,9,10
Boundary layer and below Temp, winds and moisture	4,7,8
Sea Surface Temperatures	8,10
Sub Surface ocean structure (temp, currents and salinity)	10,11,12,13
2D Wave spectra	5,13
Microphysics above freezing level	1

Equipment
1. Doppler radar (potential dual pol)
2. (HIRAD) Hurricane Imaging Radiometer
3. Launch tube mod
4. Wind only dropsonde
5. (WSRA) wide swath scanning radar altimeter
6. (LIDAR) Light Imaging Detection and Ranging
7. (UAS) Unmanned aircraft system
8. Dropsonde
9. (HAMSr) High Altitude MMIC Sounding Radiometer
10. (AXBt) Airborne EXpendable Bathy Thermograph
11. (AXCP) Airborne Expendable Current Profiler
12. (AXCTD) Airborne eXpendable Conductivity-Temperature-Depth
13. Alamo Float



2019 Hurricane Season: Personnel & Equipment



- **New Hygrometers** – performance poor
- **New VDM software**
- **Delayed ARWO hardware**



Technological Improvements for the long term future



- Broadband
 - Transmit larger data sizes
 - Ka/Ku band system
 - Subscription costs
- Integrated AXBT system
- Doppler RADAR

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Questions



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