

NOAA Aircraft Operations Center



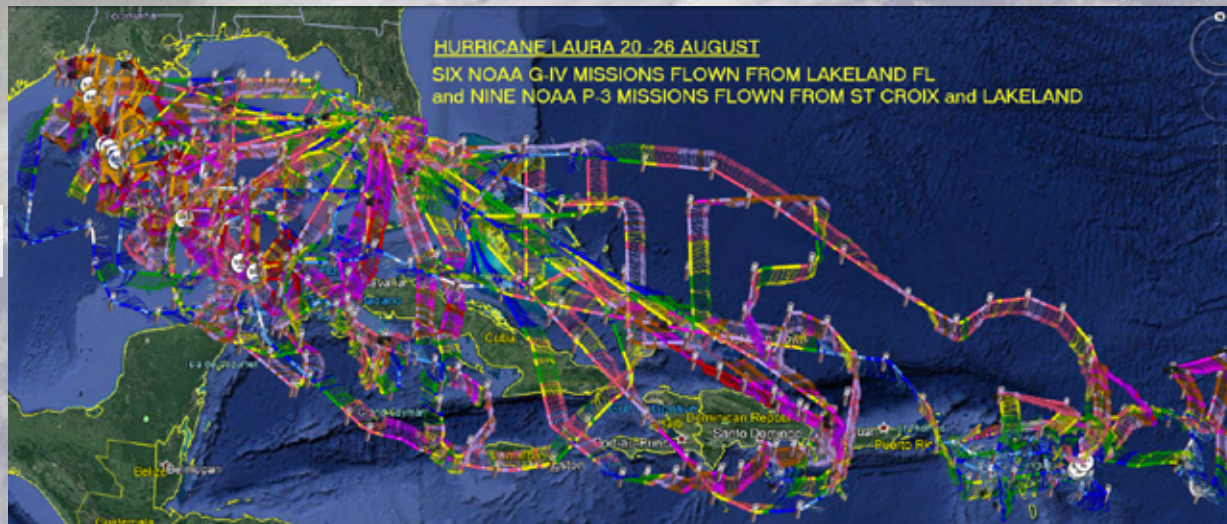
CDR Chris Kerns, NOAA
Chief of Operations
NOAA Aircraft Operations Center



Office of Marine and Aviation Operations

AOC Hurricane Season Operations

P-3 / G-IV Laura Flights



- AOC hurricane season mission: NHC reconnaissance support (WP-3D); EMC TDR support (WP-3D); NHC surveillance support (G-IVSP); HRD research support (WP-3D and G-IVSP)
- AOC also supports NOS Emergency Response/Damage Assessment missions (King Air)
- 678 hours (NWS/OAR/NESDIS) flown during 2020 season across all hurricane missions
- G-IVSP flew 82% of FY20 and 69% of FY21 allocated hours
- WP-3D flew 97% of FY20 and 95% of FY21 allocated hours
- Funding recently allocated for additional FY21 hours



AOC Hurricane Season Operations

2020 Atlantic Hurricane Season *by the numbers*



12
Storms hit the
U.S. coastline,
(5 of which came
ashore in Louisiana)
Previous record: 9 in 1916

13
Hurricanes
Average season
has six

6
Major
hurricanes
Average season
has three

10
Named storms
that formed in
September
Most for any month on record

10
Rapidly intensifying
storms sampled
by NOAA and the
U.S. Air Force

30
Named storms

Arthur	Paulette
Bartha	Rene
Cristobal	Sally
Dolly	Teddy
Edouard	Vicky
Fay	Wilfred
Gonzalo	Alpha
Hanna	Beta
Isaias	Gamma
Josephine	Delta
Kyle	Epsilon
Laura	Zeta
Marco	Eta
Nana	Theta
Omar	Iota



NOAA Hurricane Hunters

86
Missions conducted

102
Hurricane eyewall passages

678
Flight hours

1,772
Drosondes deployed
to gather vital atmospheric data

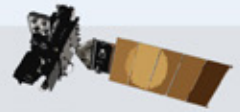


**NOAA underwater
hurricane gliders**

47
Glider deployments

13,272
Gathered observations

179,401
Temperature and
salinity profiles
These help improve forecasts for
current storms



16
NOAA weather
satellites in operation

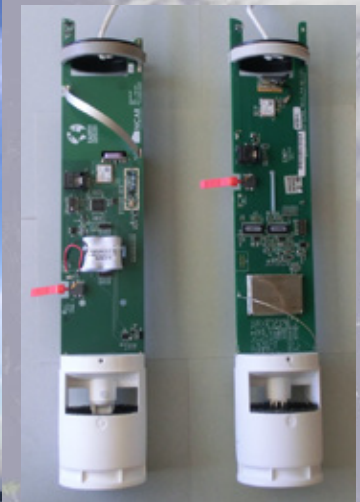
5th
consecutive
above-normal season
Previous record: 4 from 1998 to 2001

86
Facebook Live
broadcasts
from the National Hurricane Center



AOC Hurricane Season Operations

- Per NHOP, 5.5.2.5, one WP-3D operationally configured and available to respond within 24 hours from 1 June – 30 November
- 2nd WP-3D available from 14 August – 31 October
- 2020 season was the first season in six years with both WP-3Ds available for majority of season.

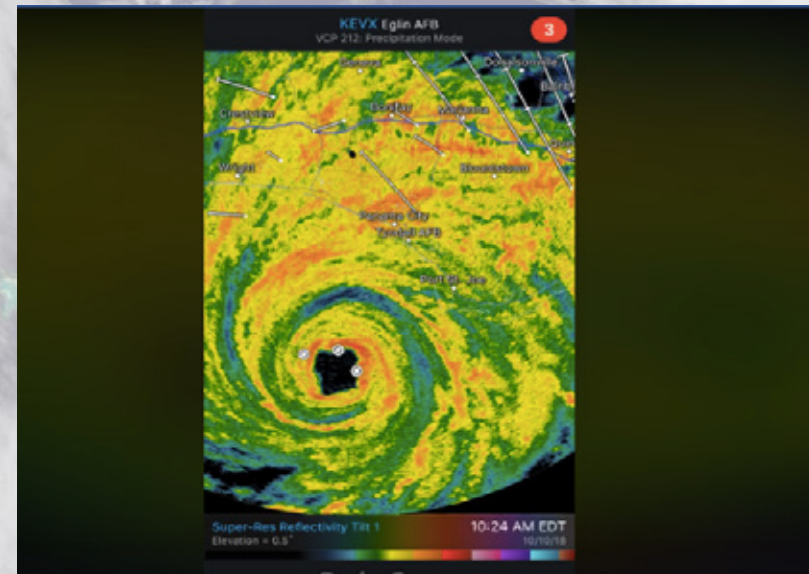
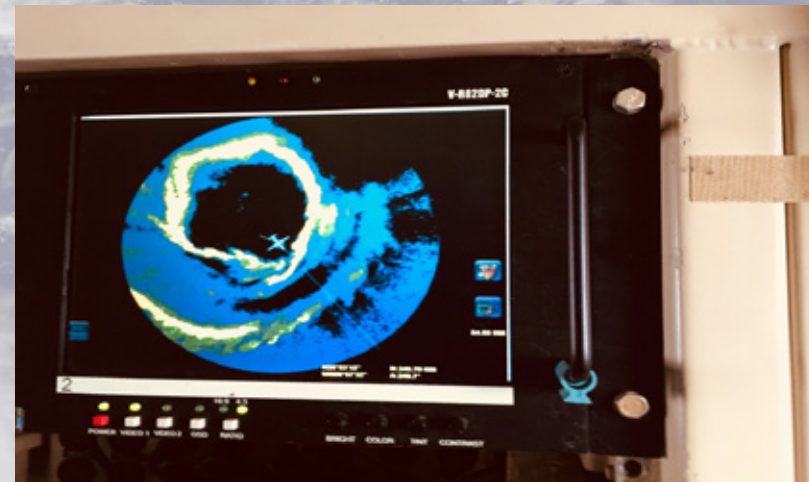


AOC Hurricane Season Operations

Standard Coordination

(through Chief, Programs and Projects Section)

- Pre-emptive tasking received ~48 hrs from time of first mission
- Formal tasking given ~36 hrs - 24 hrs out with final go/no go 24 hrs from launch
- Operational WP-3D and G-IVSP requirements are outlined in NHOP, 5.4



AOC Hurricane Season Operations

Tasking Precedence

- **WP-3D order of precedence of tasking:**
 - Reconnaissance
 - EMC TDR
 - Research (HRD or NESDIS)
- **G-IVSP order of precedence of tasking:**
 - Surveillance
 - HRD research



Irma, 2017



AOC Hurricane Season Operations

Limitations

- **Severe Weather Heavy Aircraft**
 - Winds 36 – 49 kts – Tied down
 - Winds 50 – 70 kts – Hangar
 - Winds >70kts - Evacuation
- **Flight Directors (FD's)**
 - Currently have 5 qualified FD's
 - 3 new FD's on site, in training



AOC Data available at NCEI

<https://www.ncdc.noaa.gov/has/HAS.FileAppRouter?datasetname=642002&subqueryby=STATION&applname=&outdest=FILE>



Questions?



Office of Marine and Aviation Operations