



# National Transportation Safety Board

Last slide  
with NTSB  
50<sup>th</sup>  
Anniversary  
Commemor  
ative  
Emblem  
Making  
Transportat  
ion Safer  
Yesterday  
Today  
Tomorrow

## Onboard Weather Information Weather Reporting from Vessels

Mike Richards  
Meteorology Group Chairman

# Onboard Weather Information

- Primary sources of weather guidance:
  - SAT-C
  - BVS
- Different delivery methods
- Different formats
- Conflicting information on storm location

# SAT-C

IBC Message --- MET Navarea Warning or MET Forecast ---  
Message Sequence No. : 12704  
LES : Vizada (NDR)  
Priority : Urgent  
Size : 2191 characters  
Receive Date & Time : 16-10-16 20:46 (UTC)  
  
Eik LES 16-OCT-2016 20:44:15 069791

NTNT25 KNHC 162043  
TCMAT5 AOW 2043

HURRICANE NICOLE FORECAST/ADVISORY NUMBER 51  
NWS NATIONAL HURRICANE CENTER MIAMI FL AL152016  
2100 UTC SUN OCT 16 2016

THERE ARE NO COASTAL WATCHES OR WARNINGS IN EFFECT.

HURRICANE CENTER LOCATED NEAR 39.7N 45.6W AT 16/2100Z  
POSITION ACCURATE WITHIN 30 NM

PRESENT MOVEMENT TOWARD THE NORTHEAST OR 45 DEGREES AT 8 KT

ESTIMATED MINIMUM CENTRAL PRESSURE 960 MB

EYE DIAMETER 70 NM

MAX SUSTAINED WINDS 70 KT WITH GUSTS TO 85 KT.

64 KT..... 60NE 80SE 80SW 70NW.

50 KT..... 130NE 150SE 180SW 130NW.

34 KT..... 380NE 330SE 330SW 380NW.

12 FT SEAS.. 480NE 660SE 960SW 720NW.

WINDS AND SEAS VARY GREATLY IN EACH QUADRANT. RADII IN NAUTICAL  
MILES ARE THE LARGEST RADII EXPECTED ANYWHERE IN THAT QUADRANT.

REPEAT...CENTER LOCATED NEAR 39.7N 45.6W AT 16/2100Z  
AT 16/1800Z CENTER WAS LOCATED NEAR 39.4N 45.9W

FORECAST VALID 17/0600Z 40.5N 44.5W

MAX WIND 65 KT...GUSTS 80 KT.

64 KT... 60NE 80SE 80SW 70NW.

50 KT... 130NE 150SE 180SW 130NW.

34 KT... 400NE 360SE 360SW 420NW.

FORECAST VALID 17/1800Z 42.6N 42.5W

MAX WIND 65 KT...GUSTS 80 KT.

64 KT... 50NE 70SE 70SW 60NW.

50 KT... 130NE 150SE 160SW 110NW.

34 KT... 420NE 400SE 380SW 480NW.

FORECAST VALID 18/0600Z 46.3N 39.6W...POST-TROP/EXTRATROP

MAX WIND 65 KT...GUSTS 80 KT.

64 KT... 50NE 70SE 70SW 60NW.

50 KT... 130NE 140SE 120SW 90NW.

34 KT... 450NE 450SE 400SW 550NW.

FORECAST VALID 18/1800Z 51.3N 37.3W...POST-TROP/EXTRATROP

MAX WIND 65 KT...GUSTS 80 KT.

50 KT... 130NE 130SE 80SW 60NW.

34 KT... 480NE 510SE 430SW 650NW.

FORECAST VALID 19/1800Z 59.6N 32.7W...POST-TROP/EXTRATROP

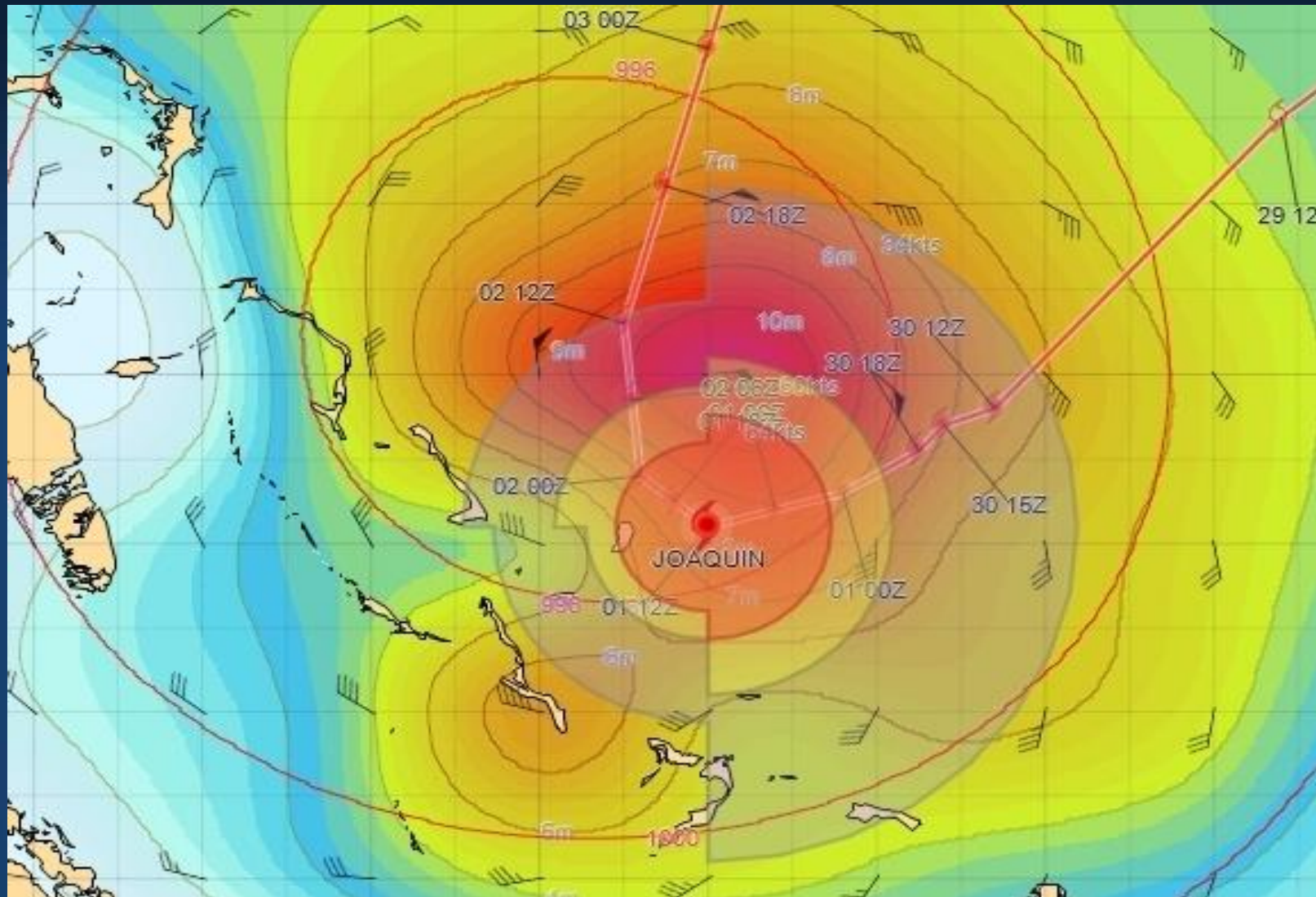
MAX WIND 55 KT...GUSTS 65 KT.

50 KT... 120NE 240SE 0SW 0NW.

34 KT... 360NE 400SE 420SW 600NW.



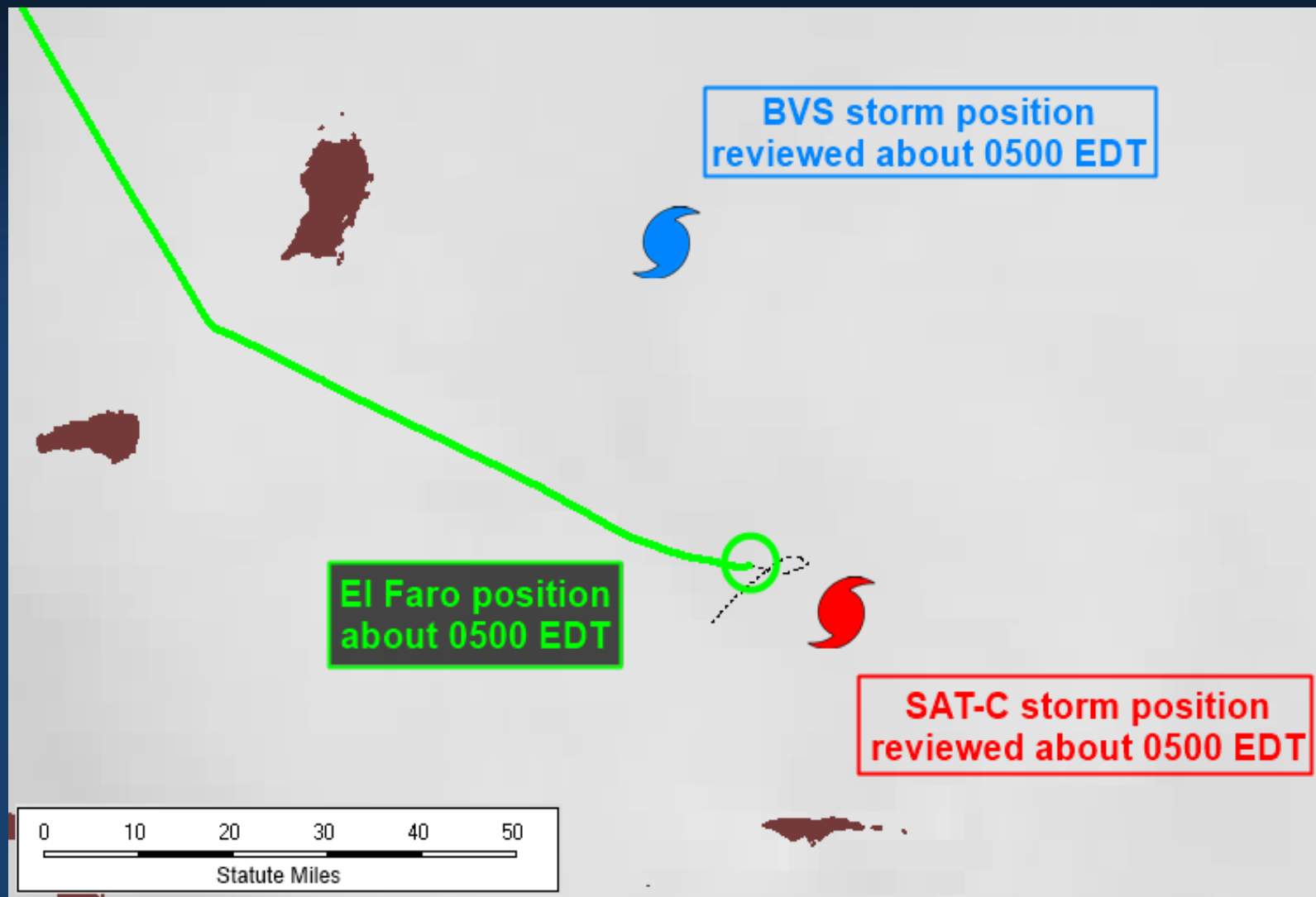
# BVS



# Onboard Weather Information

- BVS provided a storm position and forecast track 6 hours behind SAT-C
- Old storm information was due to processing limitations at the vendor
- Mitigation options were published by the vendor but not acted upon

# Onboard Weather Information Delay



# Weather Reporting from Vessels

- In June 2017, NTSB issued 10 recommendations to NOAA, National Weather Service, and the Coast Guard
  - Addressed tropical cyclone forecasting and weather products for mariners
  - Staff is currently reviewing addressee responses
- Additional findings regarding weather reporting from vessels at sea to improve mariner safety

# Summary – Weather Reporting from Vessels

- Findings
- Recommendations