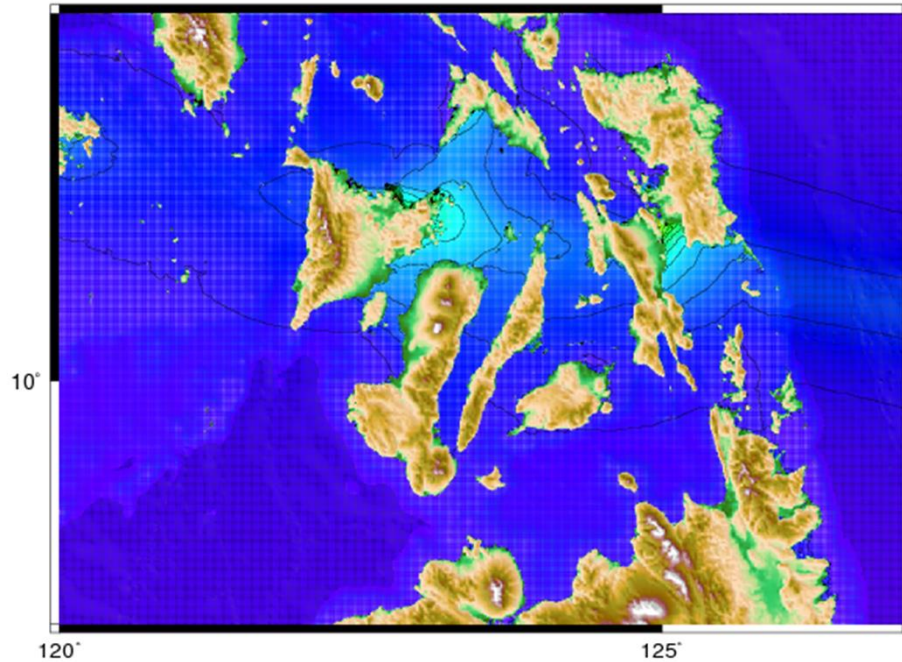
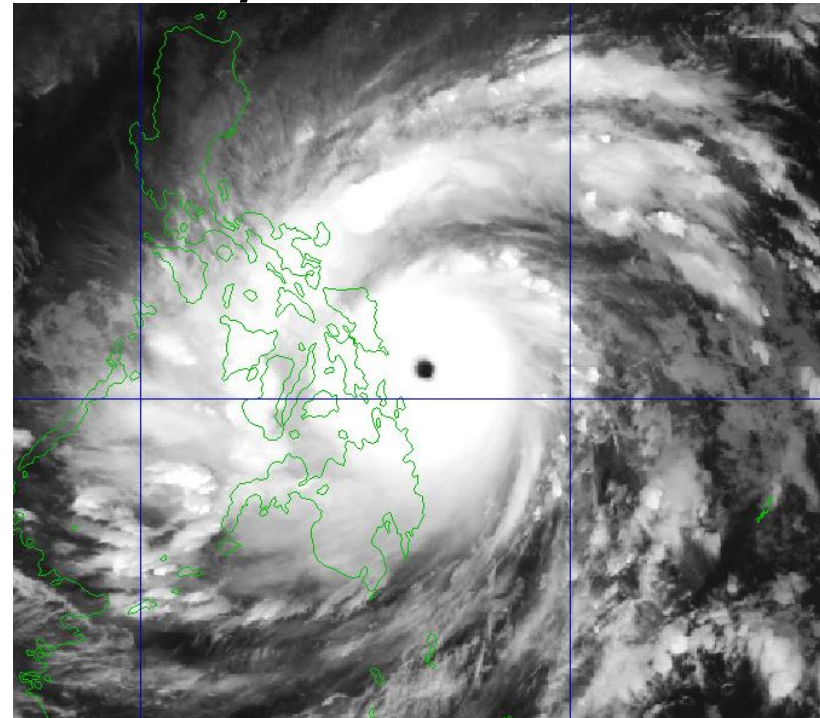


Typhoon Haiyan

November 4-12, 2013



Simulation with JMA storm surge model



MTSAT satellite image taken on November 8, 2013

Tsukasa Fujita
RSMC Tokyo – Typhoon Center

Typhoon Haiyan

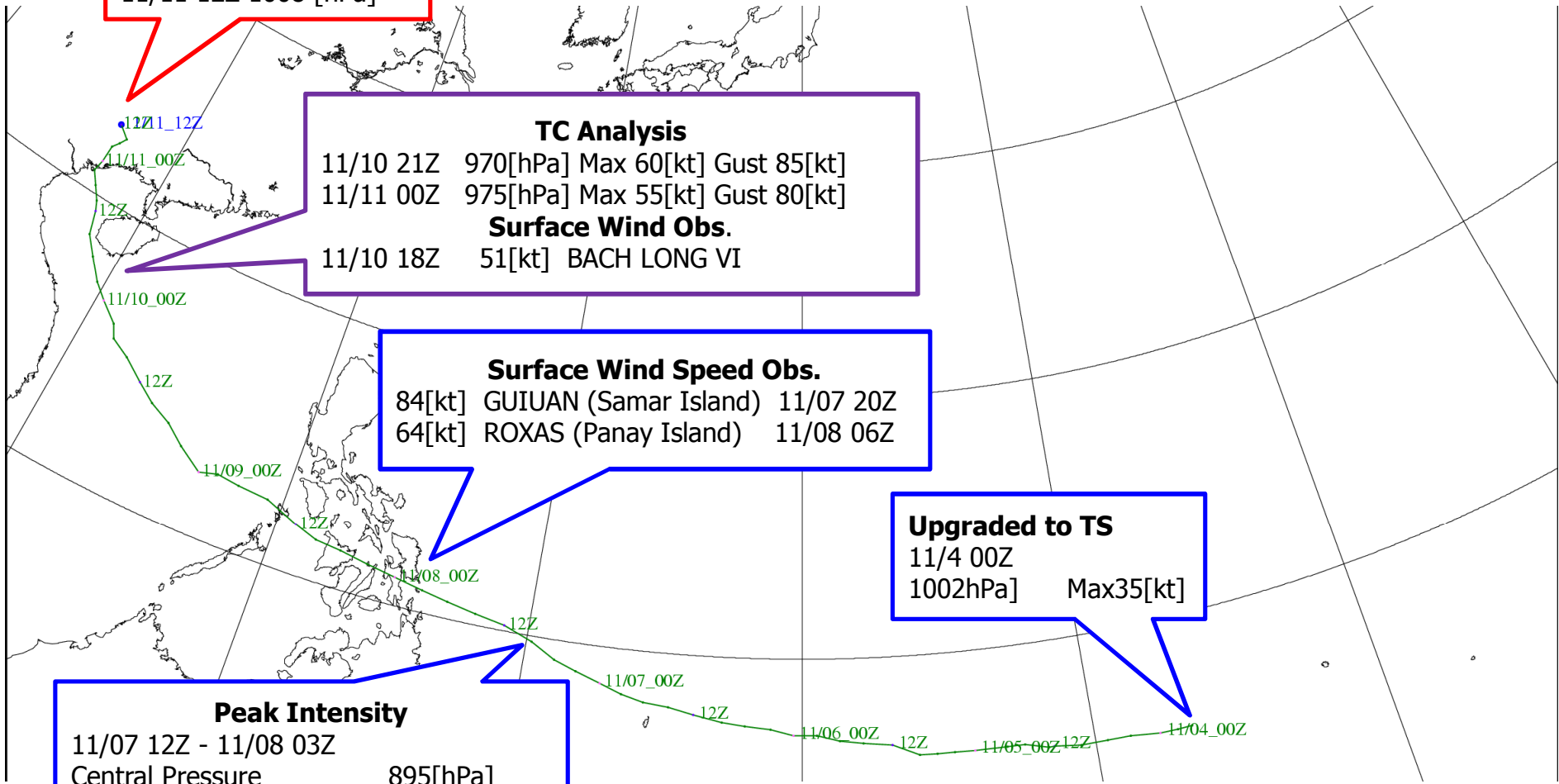
Downgraded to TD
11/11 12Z 1008 [hPa]

TC Analysis
11/10 21Z 970[hPa] Max 60[kt] Gust 85[kt]
11/11 00Z 975[hPa] Max 55[kt] Gust 80[kt]
Surface Wind Obs.
11/10 18Z 51[kt] BACH LONG VI

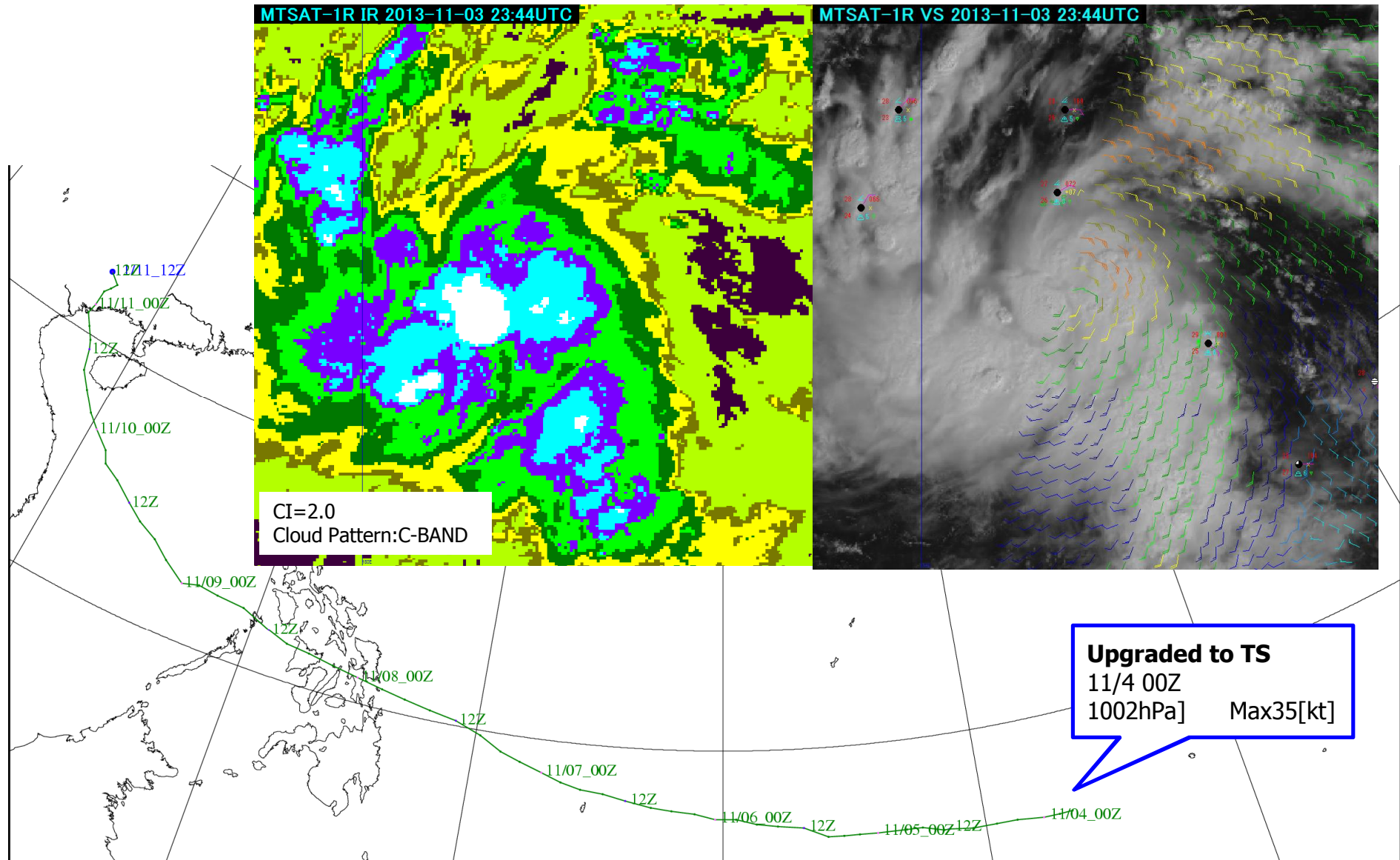
Surface Wind Speed Obs.
84[kt] GUIUAN (Samar Island) 11/07 20Z
64[kt] ROXAS (Panay Island) 11/08 06Z

Upgraded to TS
11/4 00Z
1002hPa] Max35[kt]

Peak Intensity
11/07 12Z - 11/08 03Z
Central Pressure 895[hPa]
MSWS 125[kt]
GUST 175[kt]



Typhoon Haiyan (11/4 00Z)

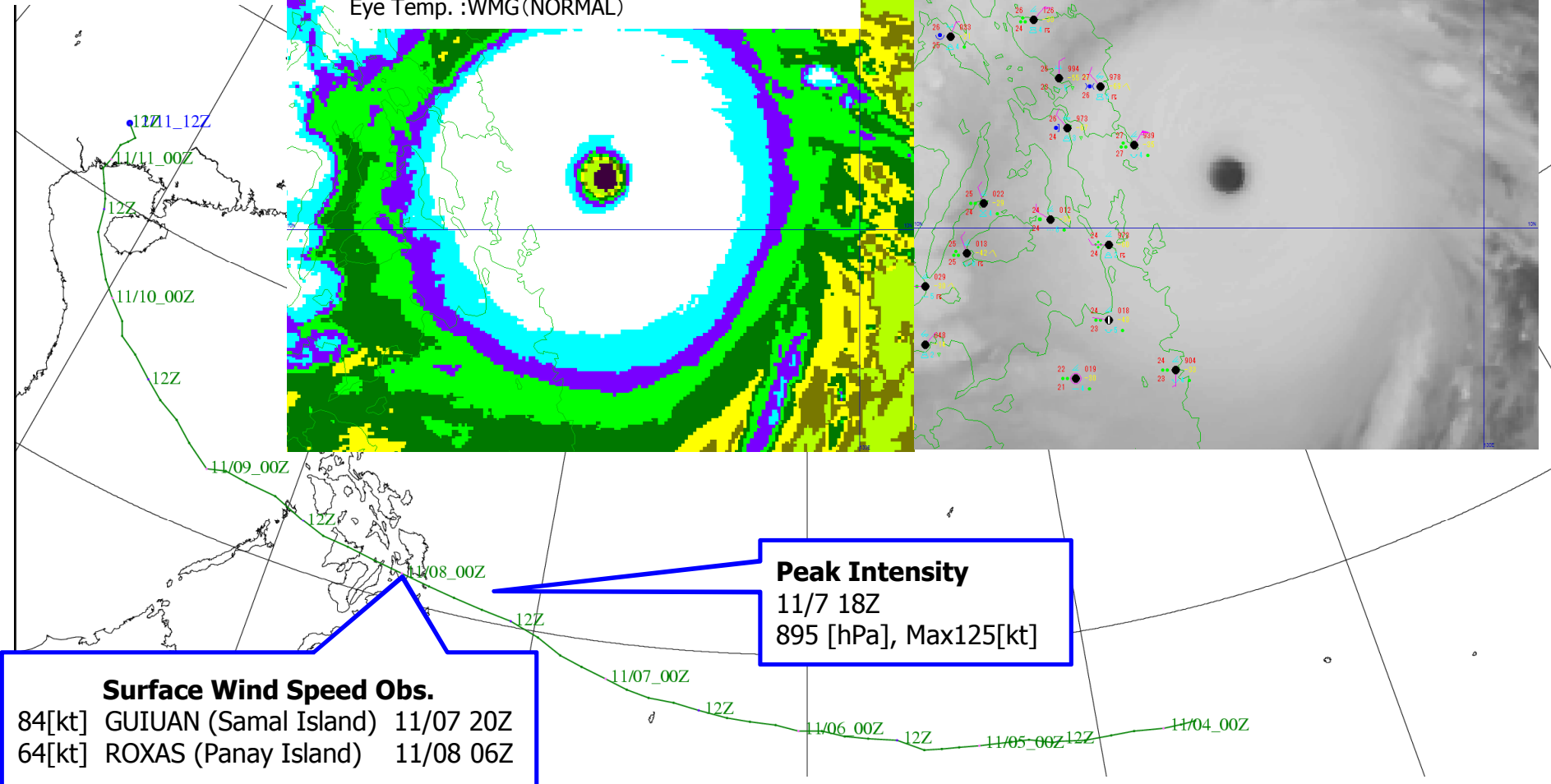
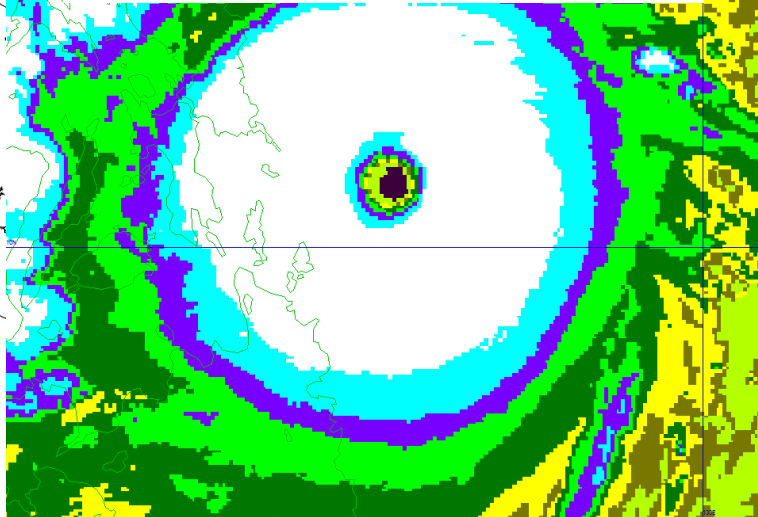
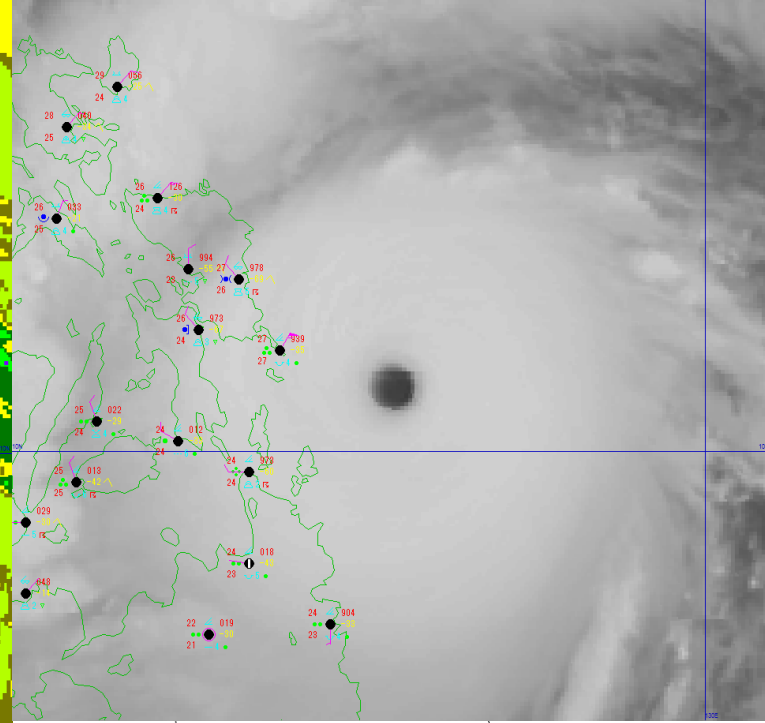


Typhoon Haiyan (11/7 18Z)

MTSAT-1R IR 2013-11-07 17:44UTC

CI=8.0 (E=6.5, CF=7.5, DT=7.5, PT=8.0, T(PT)=8.0)
 Cloud Pattern:Eye
 Surr. Ring Temp. CDG
 Surr. Gray shade:CDG
 Eye Temp. :WMG(NORMAL)

MTSAT-1R IR 2013-11-07 17:44UTC

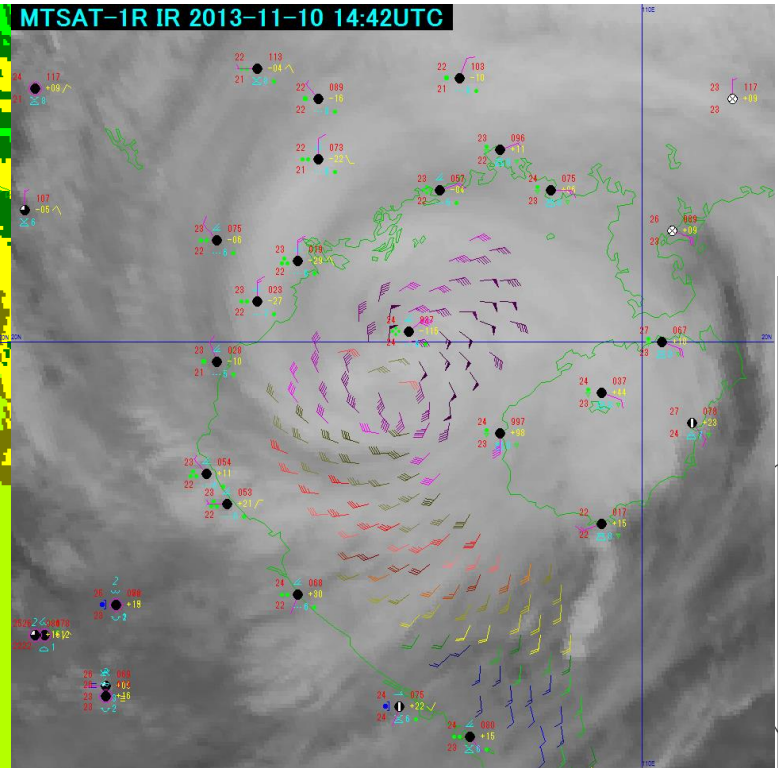
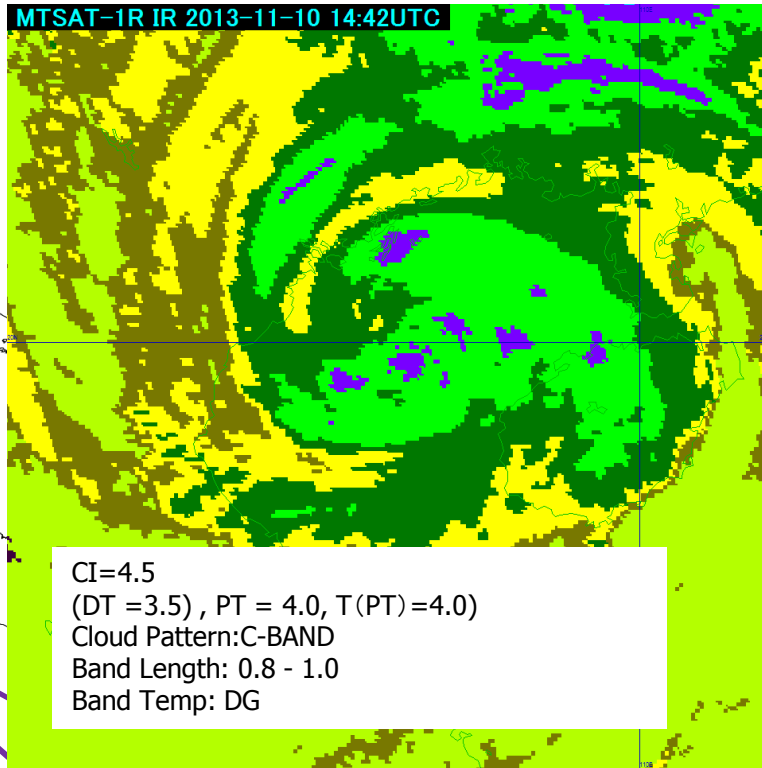


Peak Intensity
 11/7 18Z
 895 [hPa], Max125[kt]

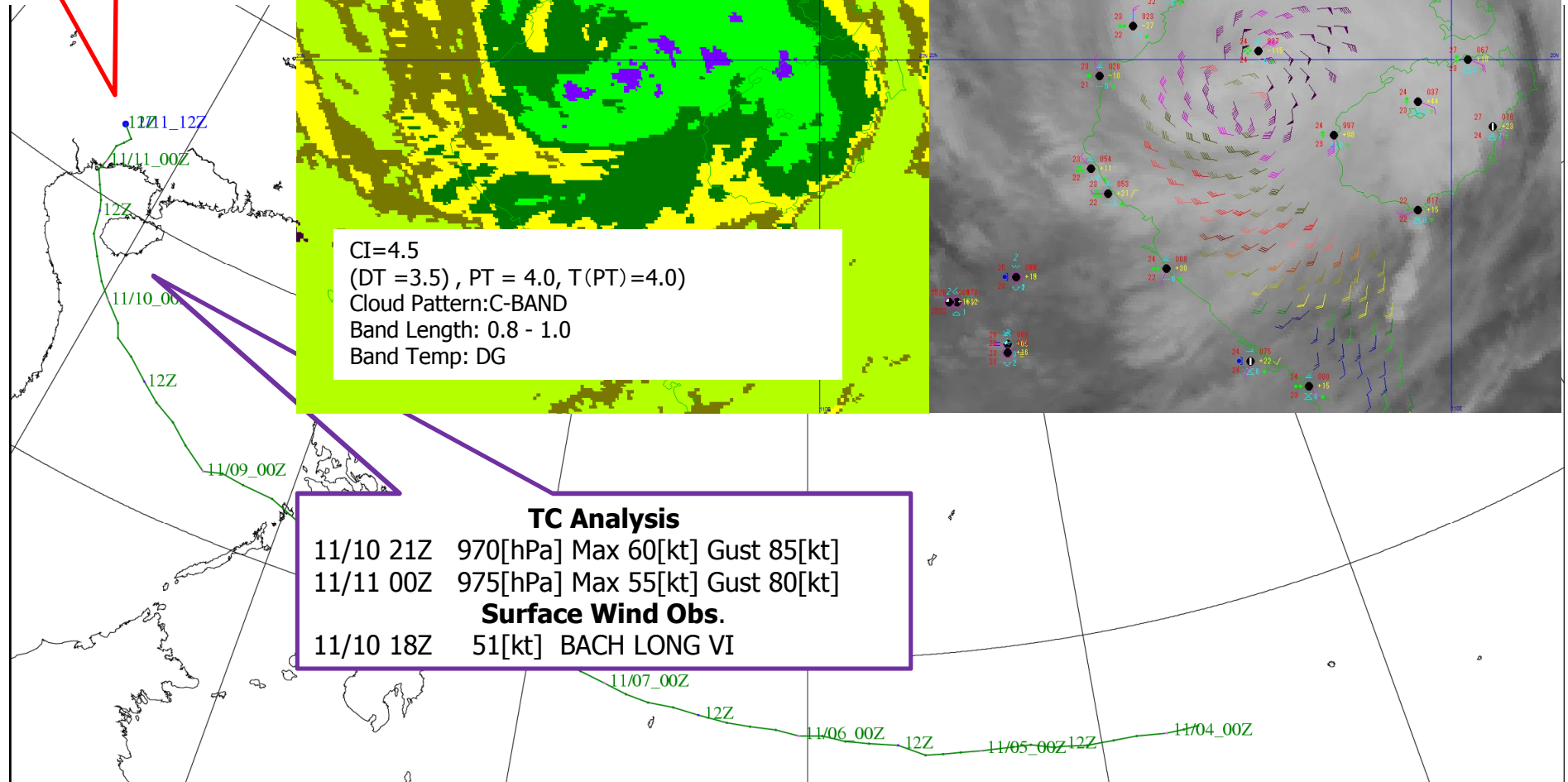
Surface Wind Speed Obs.
 84[kt] GUIUAN (Samal Island) 11/07 20Z
 64[kt] ROXAS (Panay Island) 11/08 06Z

Typhoon Haiyan (11/10 18Z)

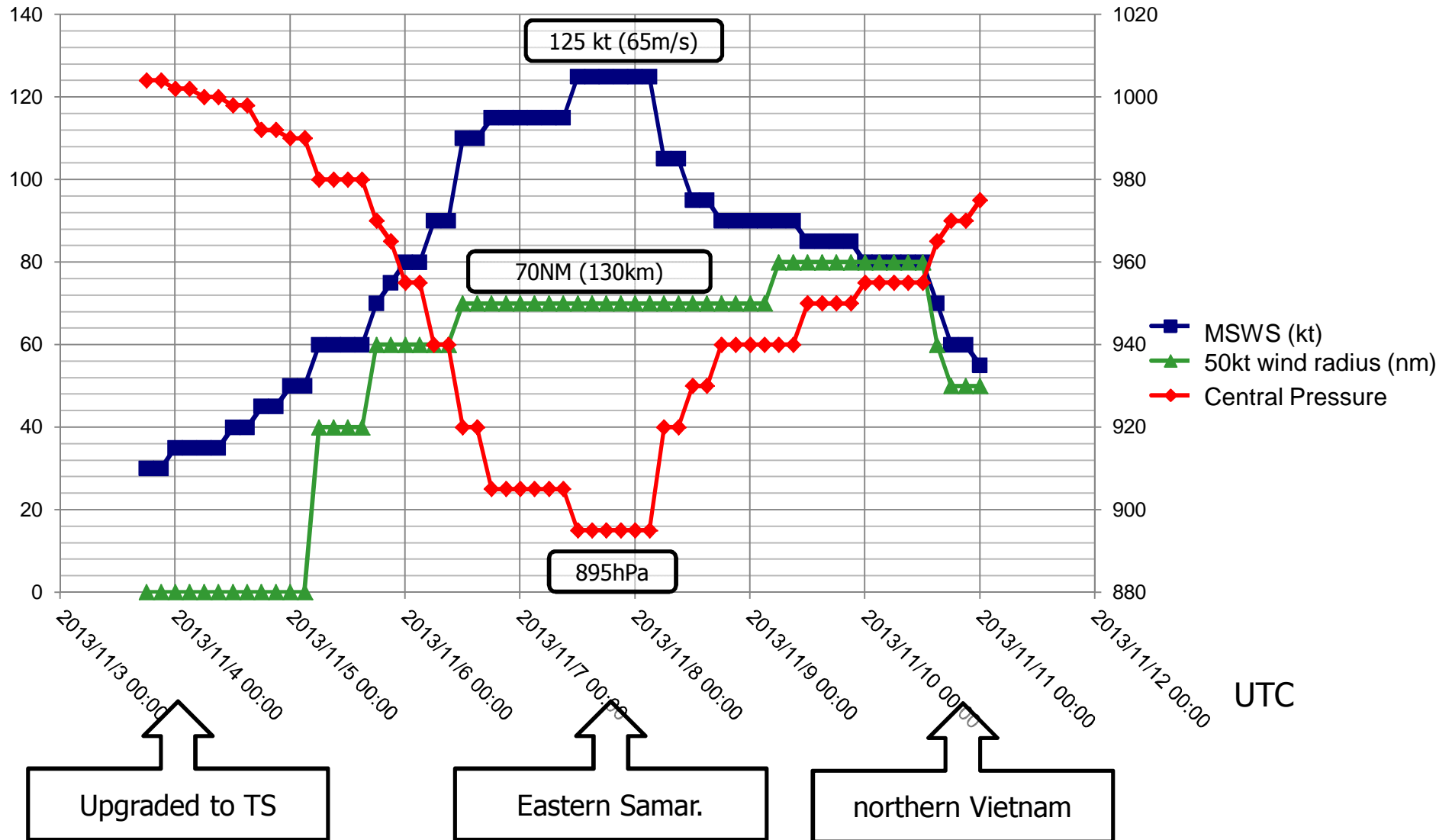
Downgraded to TD
11/11 12Z 1008 [hPa]



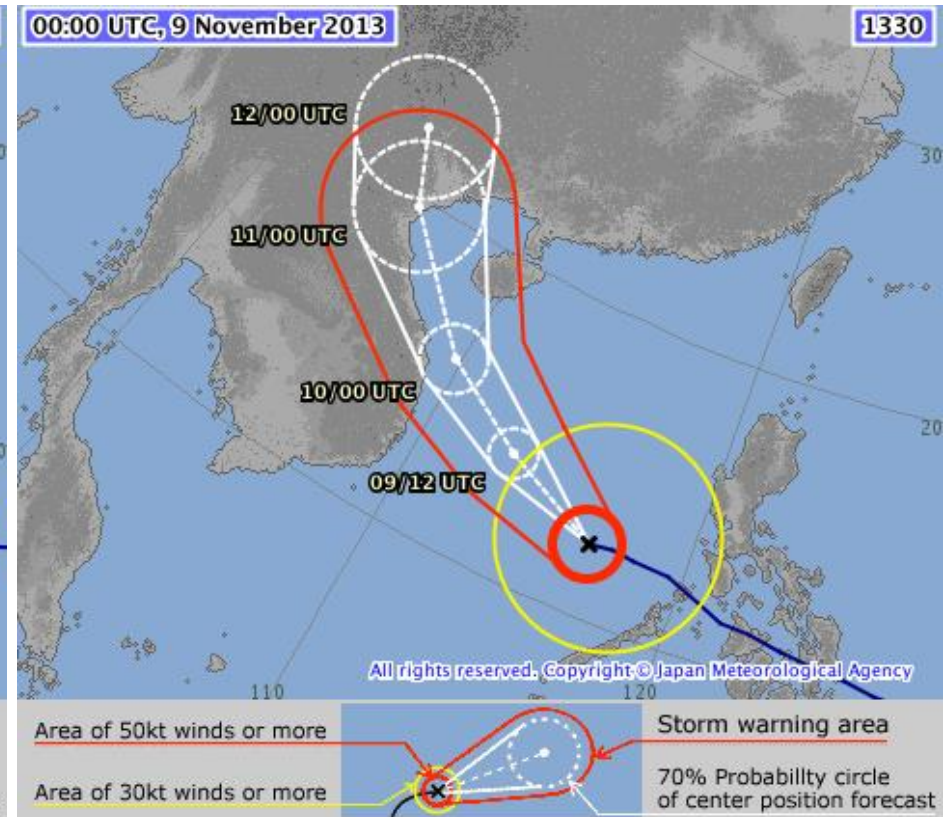
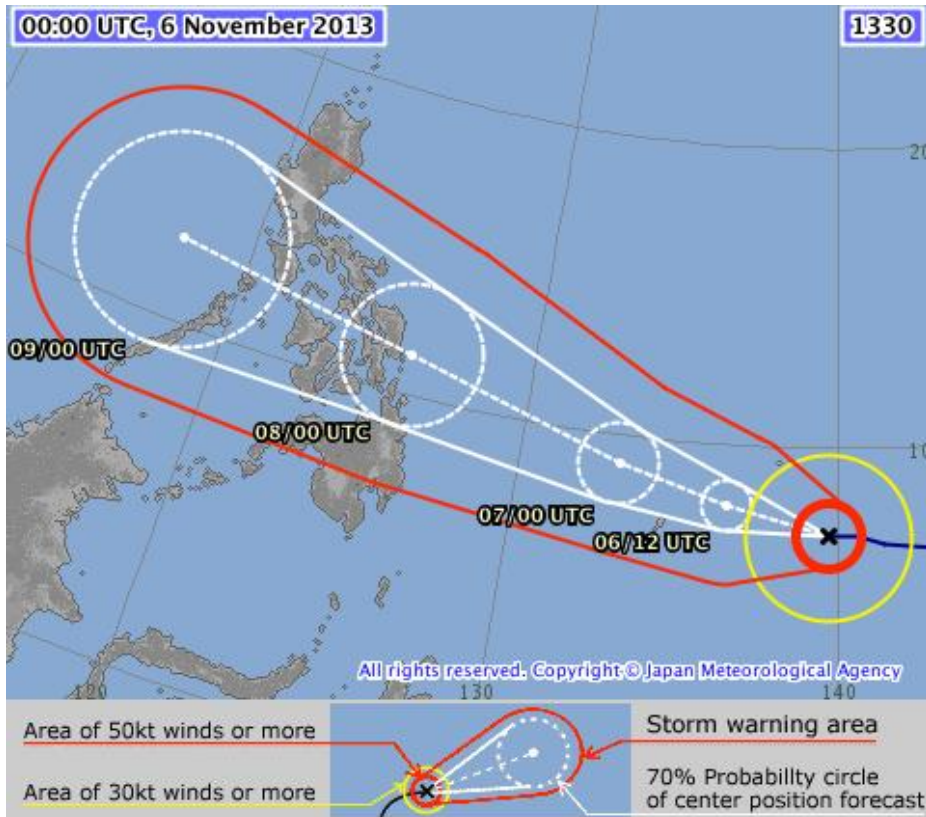
TC Analysis
11/10 21Z 970[hPa] Max 60[kt] Gust 85[kt]
11/11 00Z 975[hPa] Max 55[kt] Gust 80[kt]
Surface Wind Obs.
11/10 18Z 51[kt] BACH LONG VI



Operational Analysis



RSMC TC Forecasts



	Fcst [hPa]	Analysis [hPa]	Fcst [kt]	Analysis [kt]
00h		955		80
24h	930	905	95	115
48h	920	895	105	125
72h	930	940	95	90

	Fcst [hPa]	Analysis [hPa]	Fcst [kt]	Analysis [kt]
00h		940		90
24h	945	955	85	80
48h	960	975	75	55
72h	1002	1008(TD)	TD	TD

Storm Surge Watch Scheme Product for Ty Haiyan

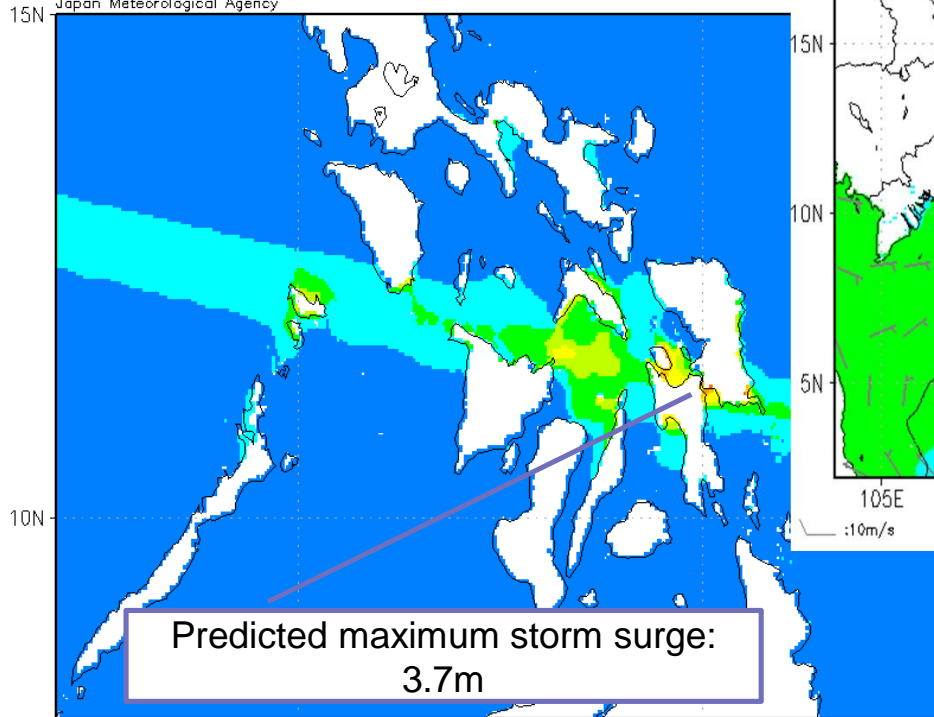
 JMA Numerical Typhoon Prediction Web Site

Track Prediction | JMA Ensemble | NWP Map | Satellite Analysis | **SSWS** | Model Information | About This Site | Links

[Storm Surge Forecast for Typhoon Committee Members]

Haiyan Max Storm Surge
initial=18Z06NOV2013

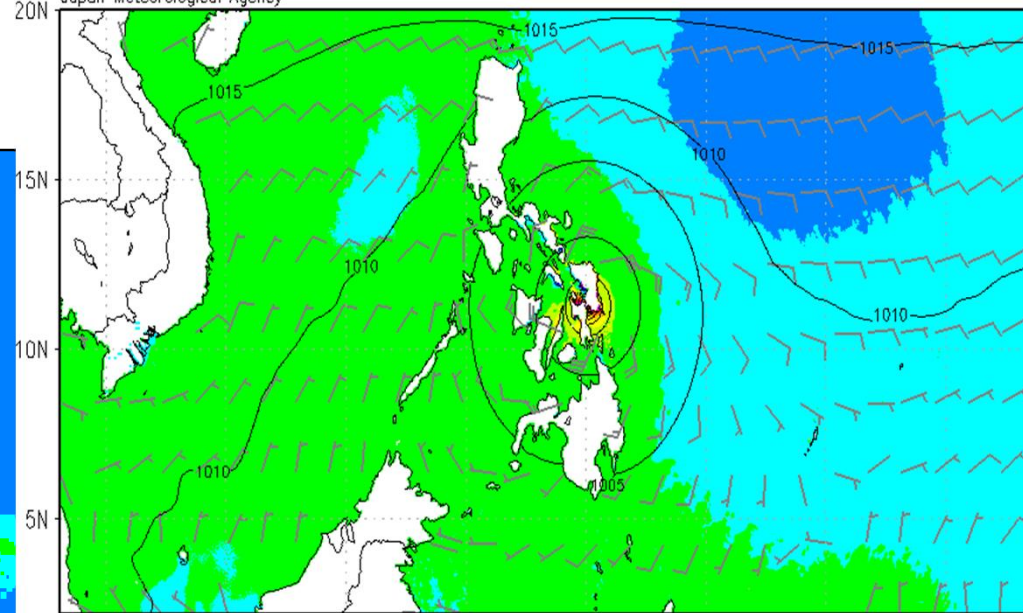
Japan Meteorological Agency



anomaly (cm)
-50 0 50 100 150 200 250 300 350 400 450

TC1 FT=33 valid=03Z08NOV2013
initial=18Z06NOV2013

Japan Meteorological Agency



anomaly (cm)
-60 -40 -20 0 20 40 60 80 100 120 140



Summary

■ Meteorological Aspects

□ TC forecasts

- Track forecasts were good
- Intensification were well forecasted 48h before landfall
- PAGASA issued good TC forecasts

□ Storm surge forecasts

- SSWS products forecasted about 4 m storm surges
- PAGASA issued good storm surge forecasts

■ Warning Aspects

The Philippine DRR management authorities incl. PAGASA warned impacts of Haiyan well before its landfallõ **But,,,,,**