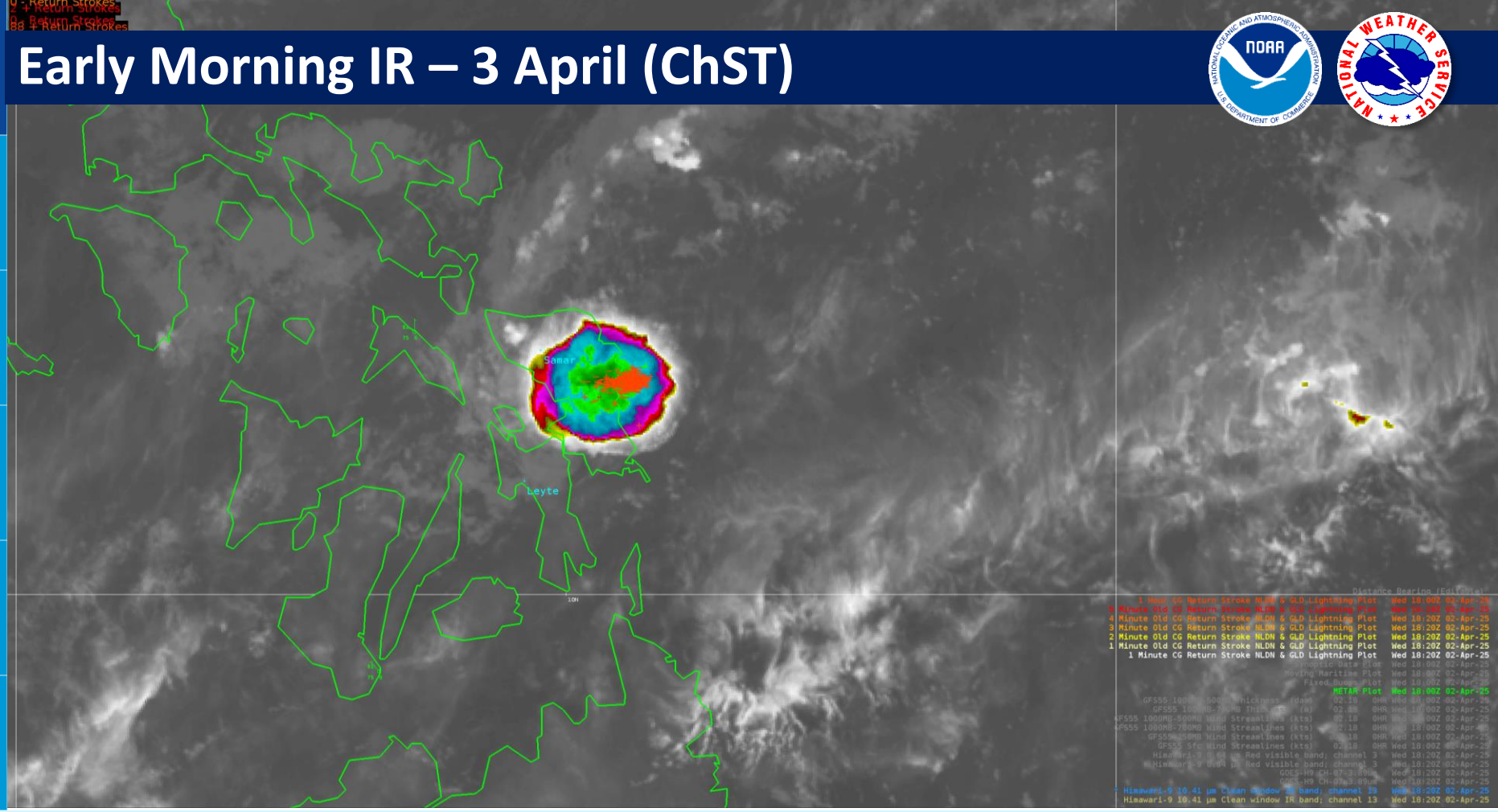
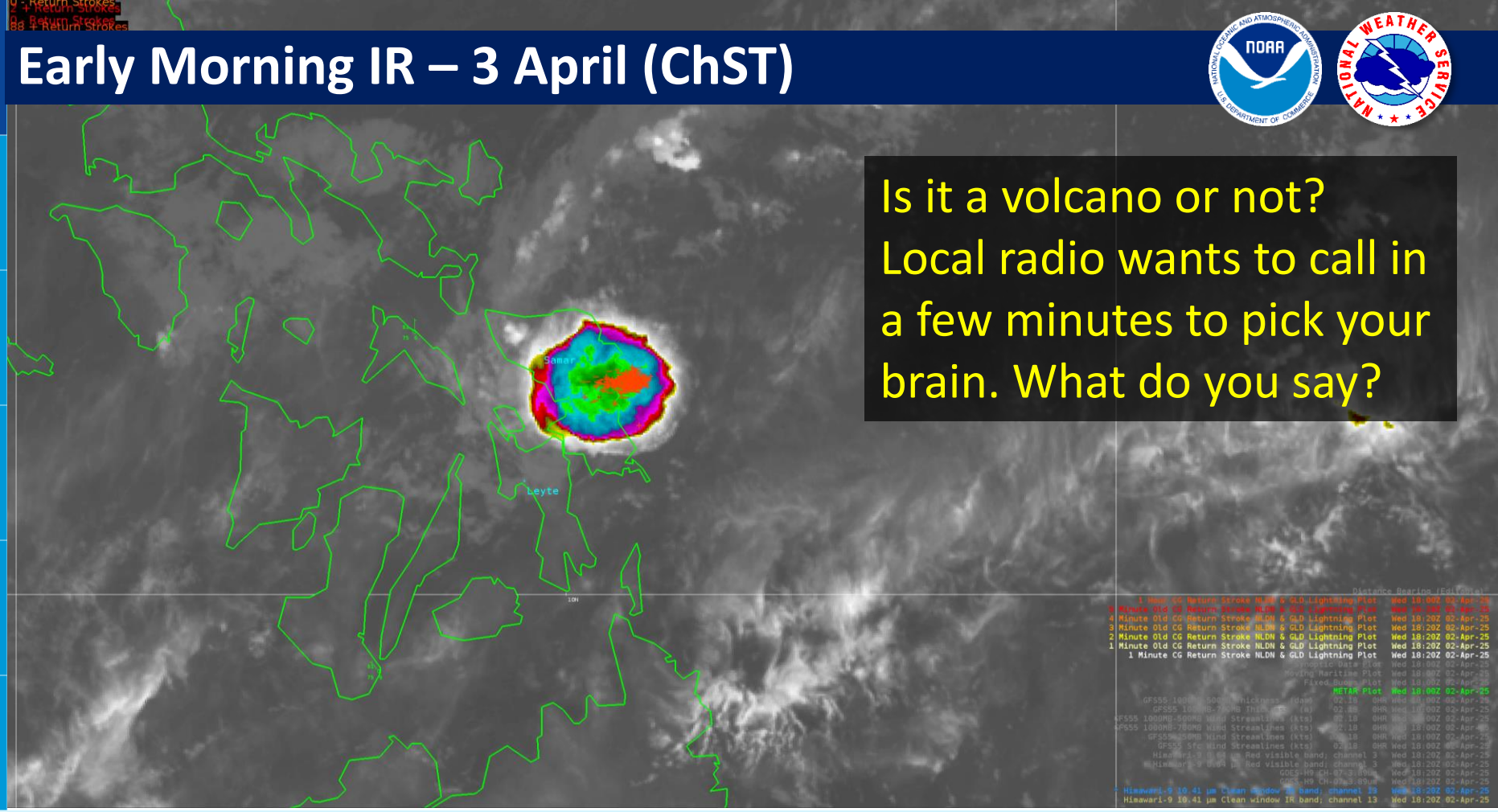
Early Morning IR – 3 April (ChST)



Early Morning IR – 3 April (ChST)



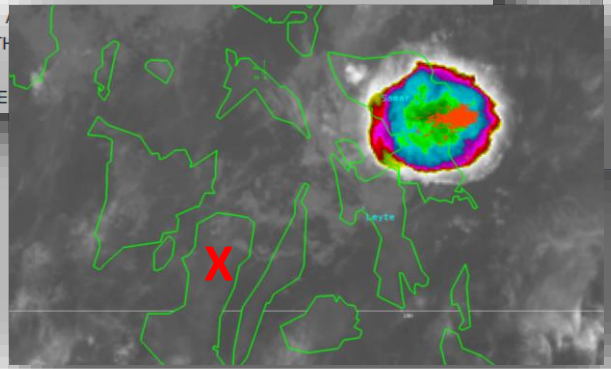
Is it a volcano or not?
Local radio wants to call in a few minutes to pick your brain. What do you say?

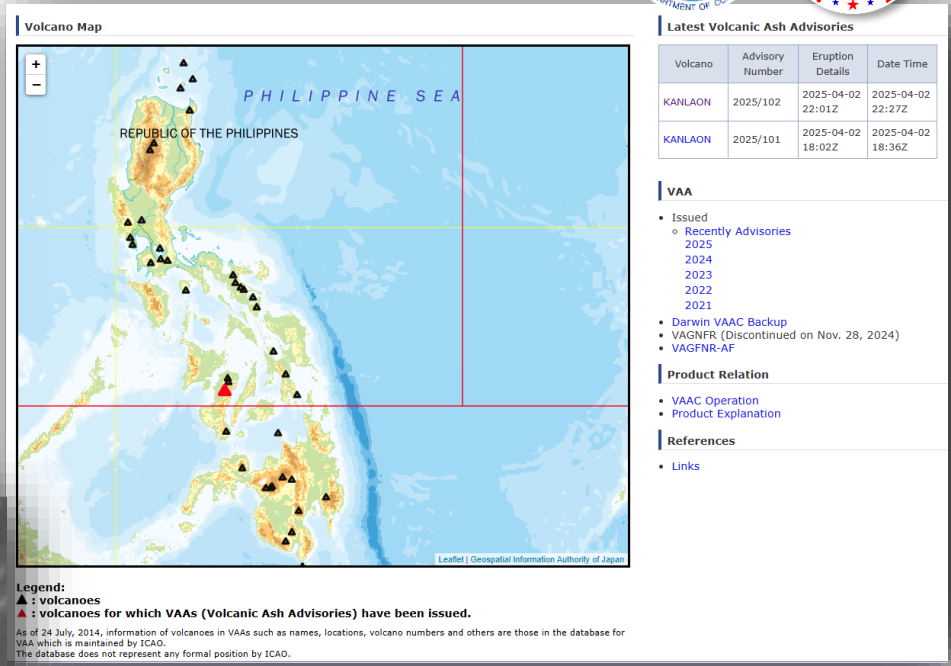
Check out the Volcano Experts!

Volcanic Ash Advisory Text

FVFE01 RJTD 022227
VA ADVISORY
DTG: 20250402/2227Z
VAAC: TOKYO
VOLCANO: KANLAON 272020
PSN: N1025 E12308
AREA: PHILIPPINES
SUMMIT ELEV: 2435M
ADVISORY NR: 2025/102
INFO SOURCE: HIMAWARI-9 PHIVOLCS
AVIATION COLOUR CODE: NIL
ERUPTION DETAILS: ERUPTION AT 20250402/2201Z FL090 EXTD SW REPORTED
OBS VA DTG: 02/2201Z
OBS VA CLD: VA NOT IDENTIFIABLE FM SATELLITE DATA WIND FL090 090/12KT
FCST VA CLD +6 HR: NOT AVBL
FCST VA CLD +12 HR: NOT AVBL
FCST VA CLD +18 HR: NOT A
RMK: WE WILL ISSUE FURTH
IMAGERY.
NXT ADVISORY: NO FURTHE

Latest from Tokyo VAAC

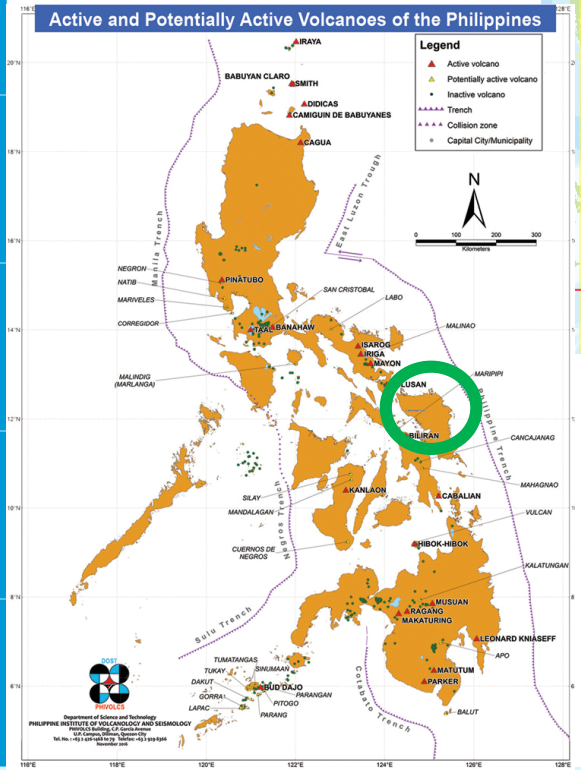


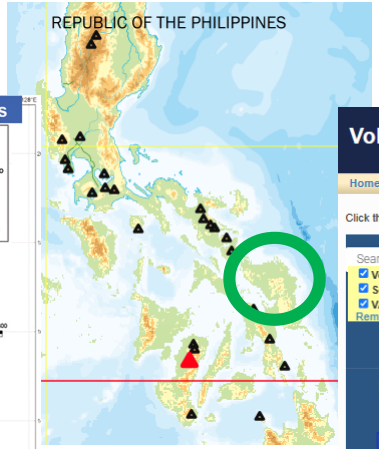


Tokyo notes nothing near the convective plume… Is there ANYTHING there?

Volcano Maps

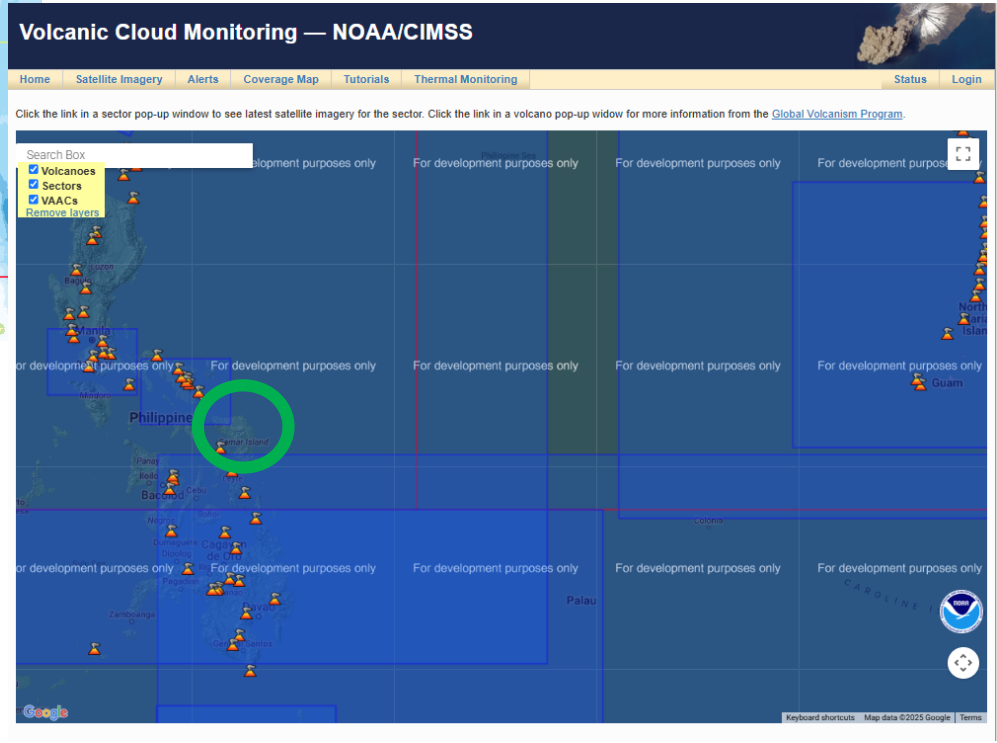
PHIVOLCS



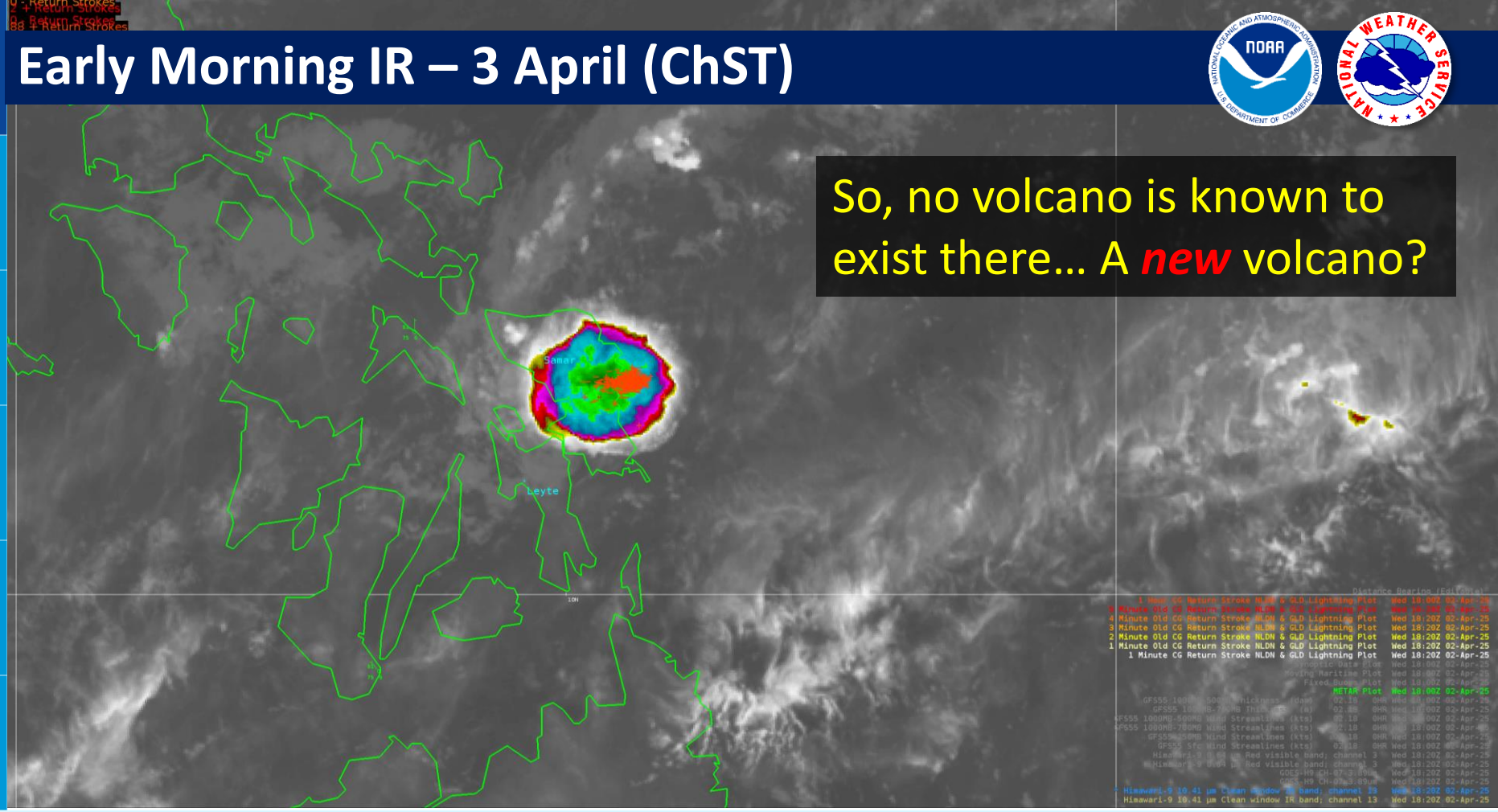


Tokyo VAAC

NOAA/CIMSS

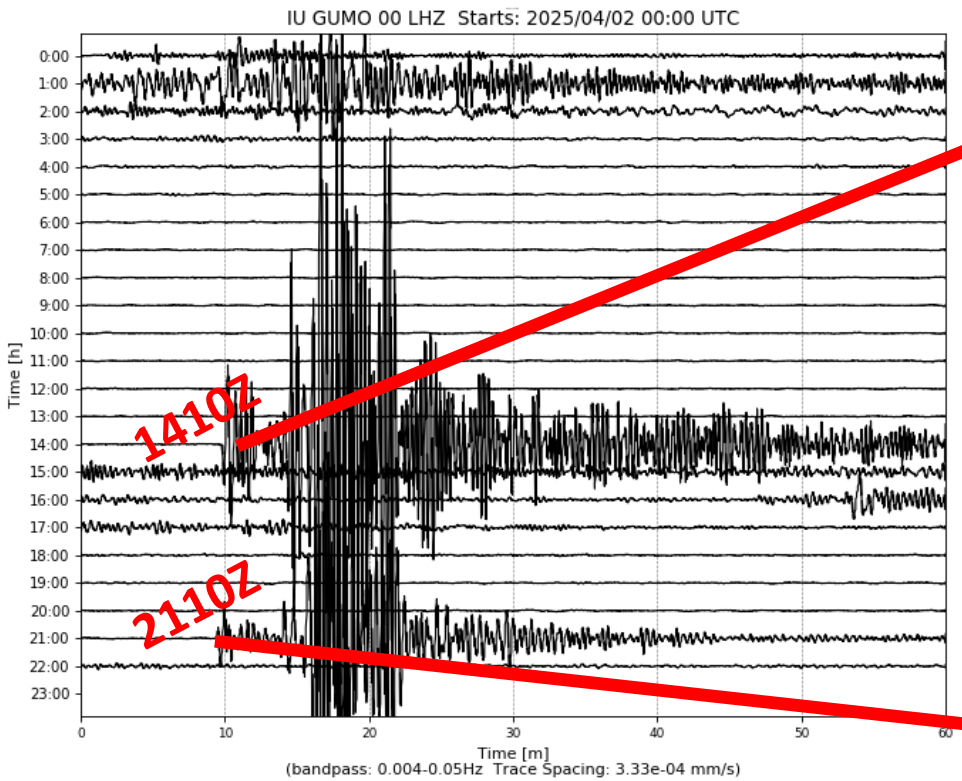


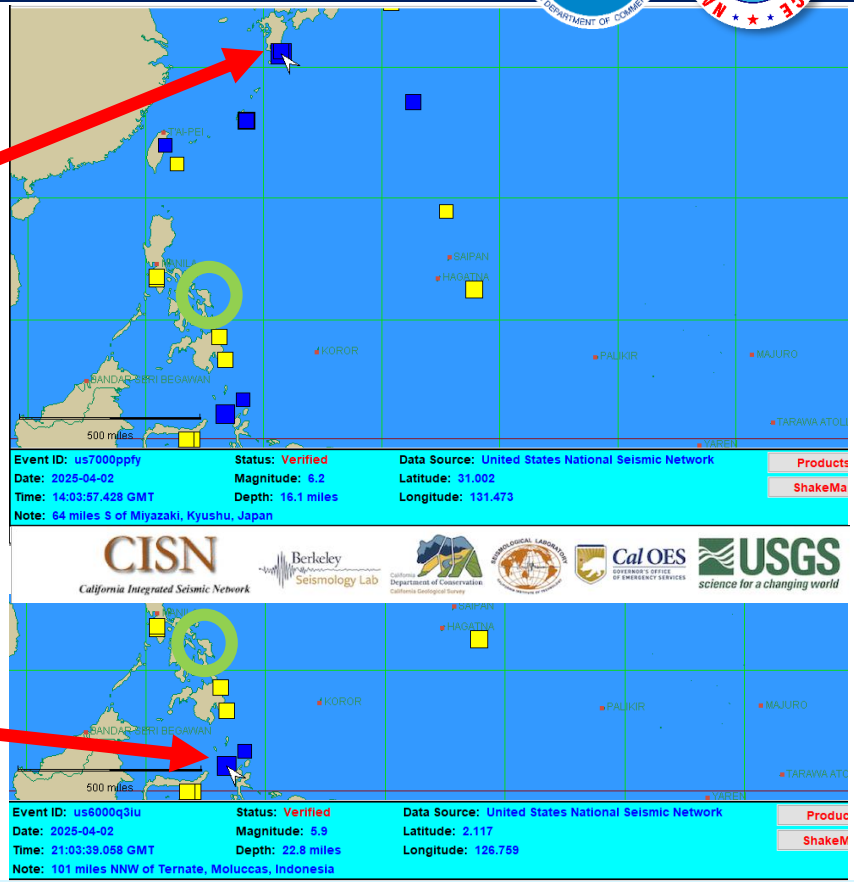
Early Morning IR – 3 April (ChST)



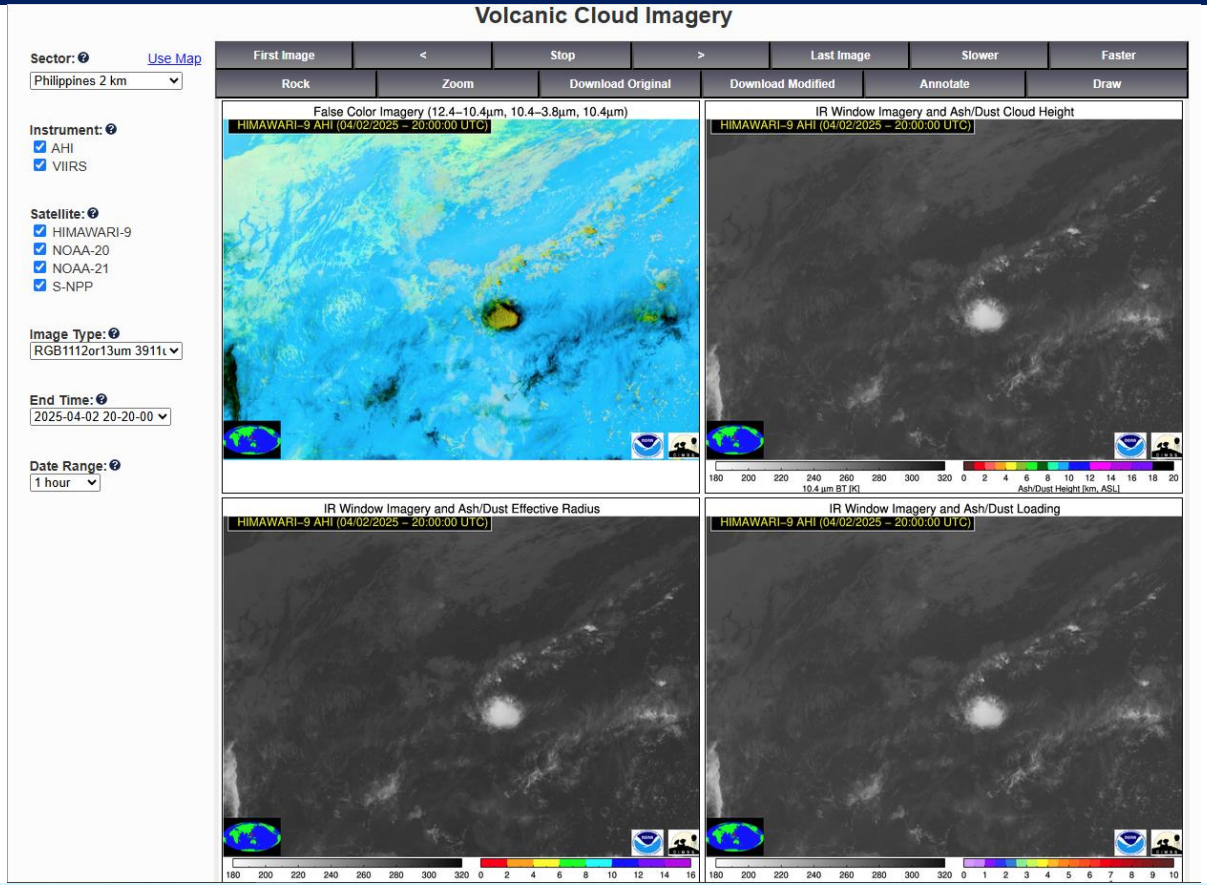
So, no volcano is known to exist there… A ***new*** volcano?

Any Interesting Seismic Activity?



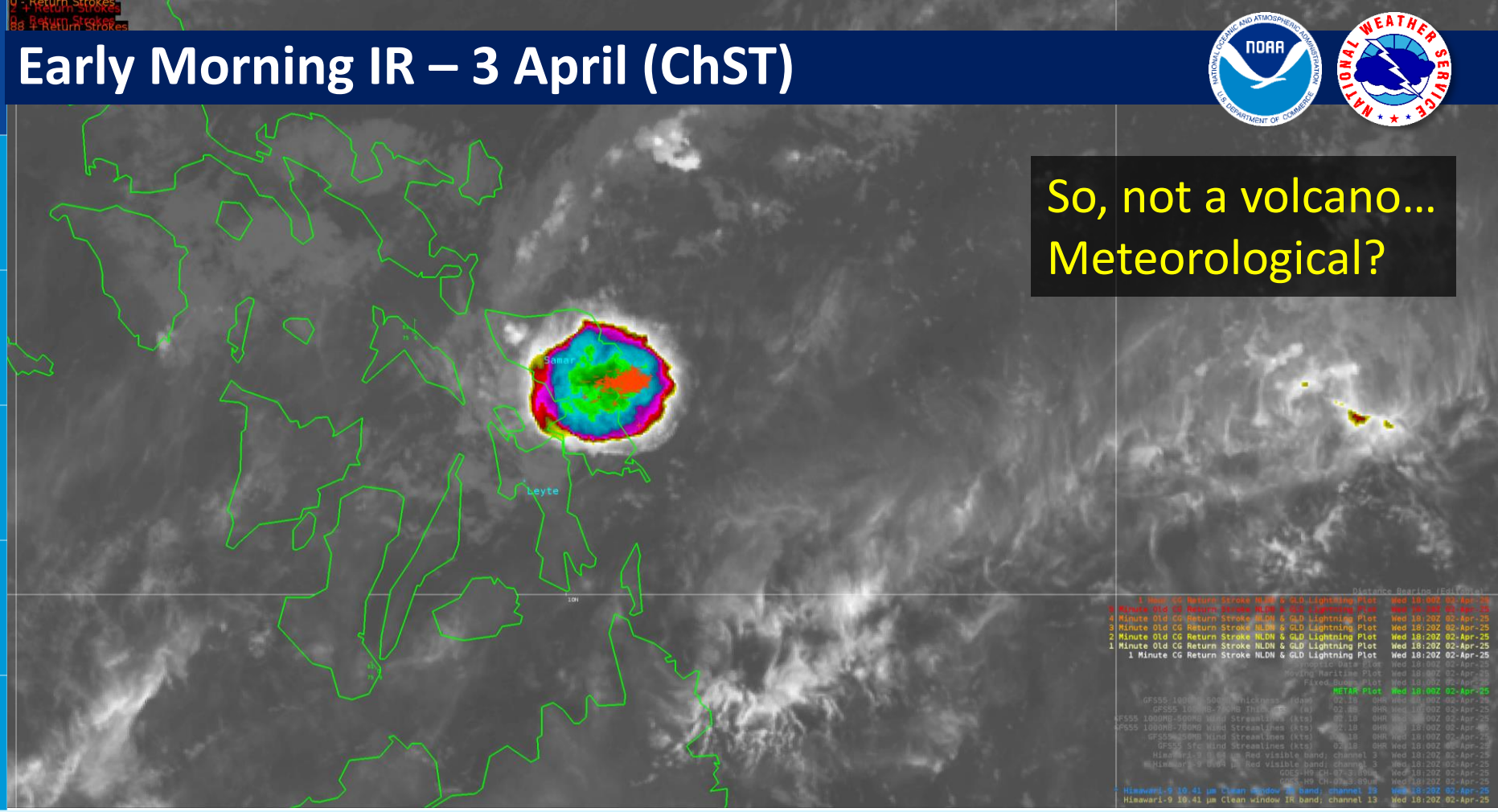


Any Other Ways to Assess for Volcano? Ash? SO2?



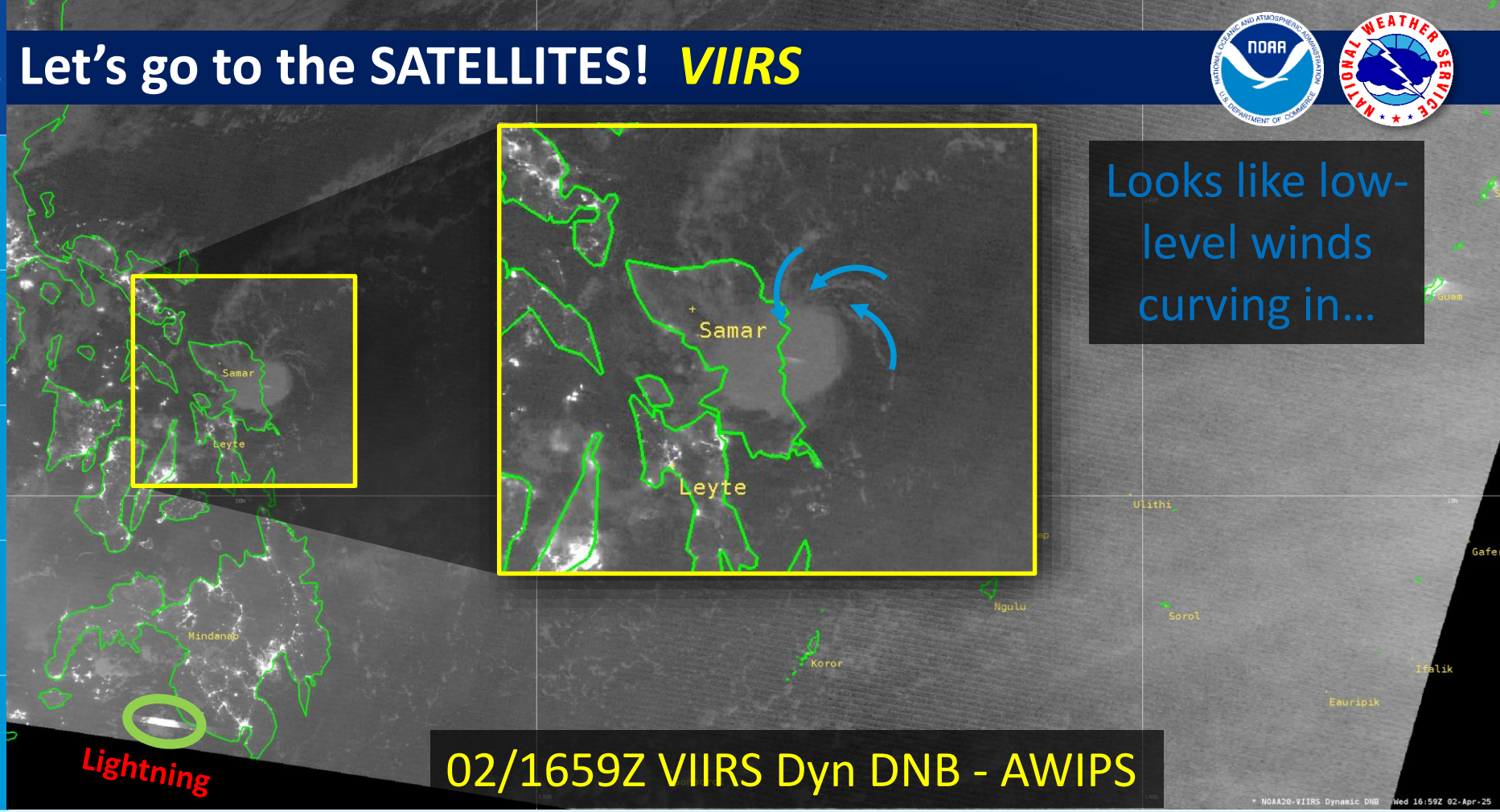
NOAA/CIMSS Volcano Monitoring Satellite Imagery (lots of options)

Early Morning IR – 3 April (ChST)

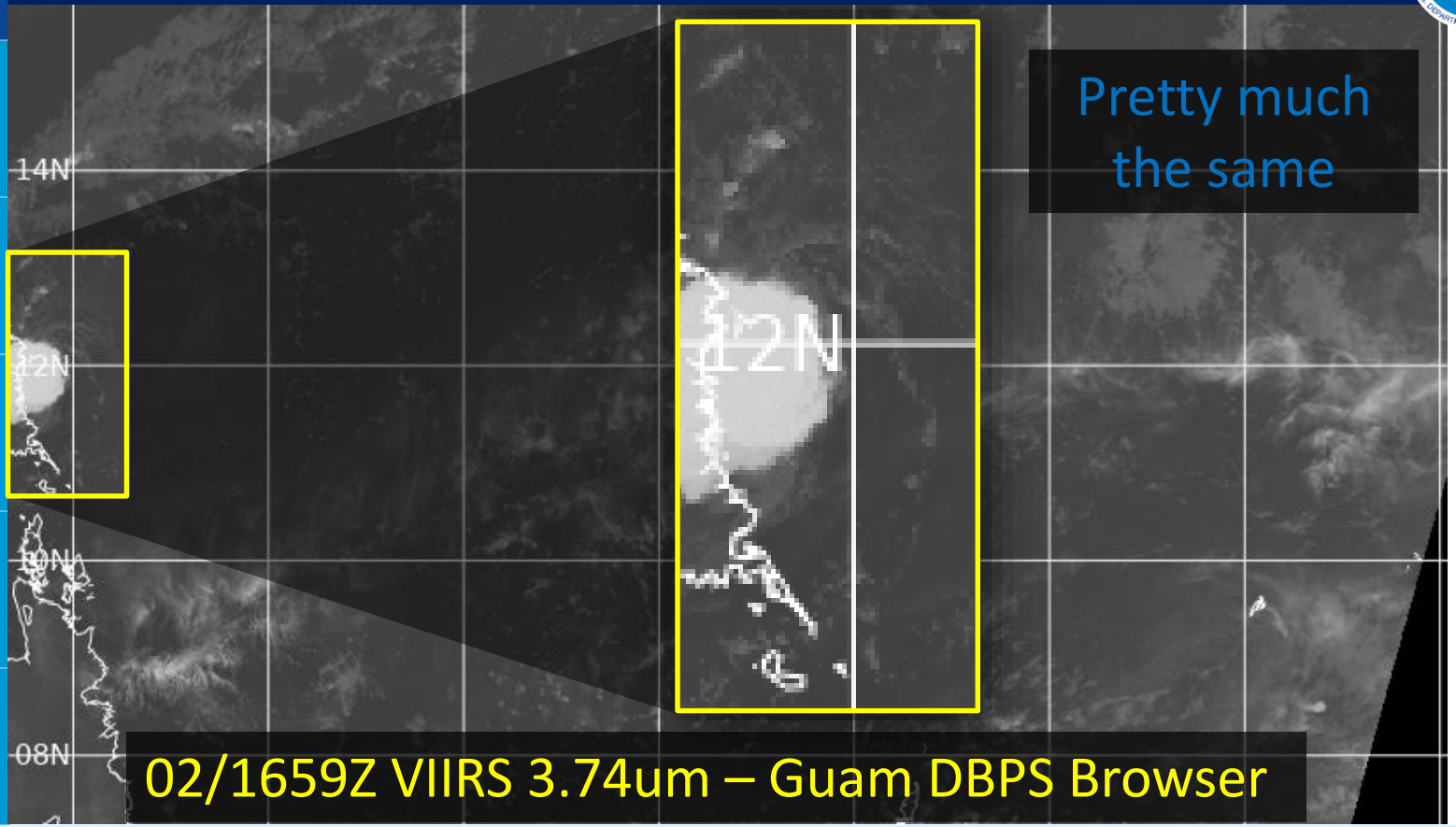


So, not a volcano…
Meteorological?

Let's go to the SATELLITES! *VIIRS*

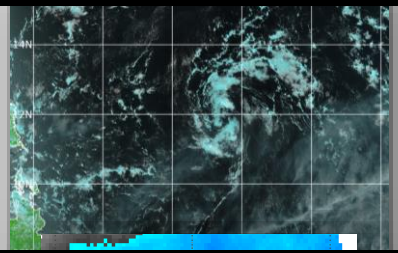


Let's go to the SATELLITES! *VIIRS*

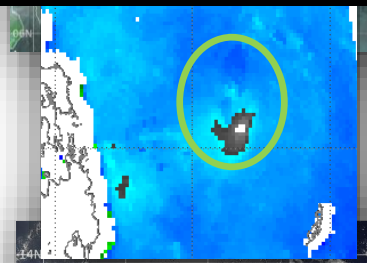


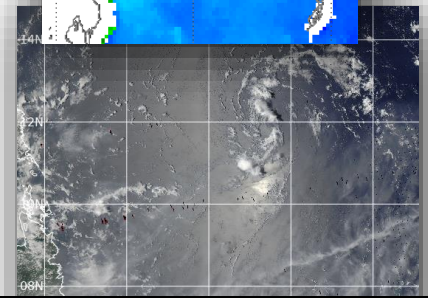
Let's go to the SATELLITES! *Time Series Lead-Up*

01/0446Z VIIRS False Color – Guam DBPS Browser



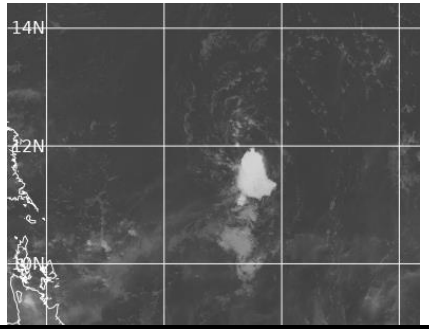
01/0450Z AMSR2 Winds – Web – NESDIS STAR



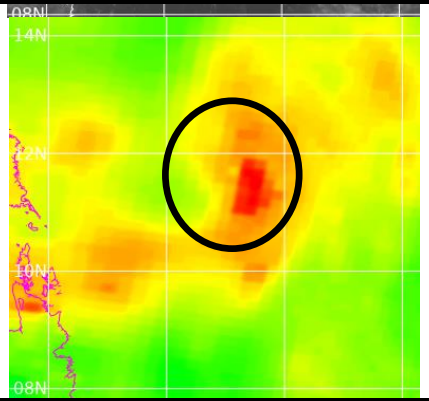


01/0525Z Aqua-MODIS True Color – Guam DBPS Browser

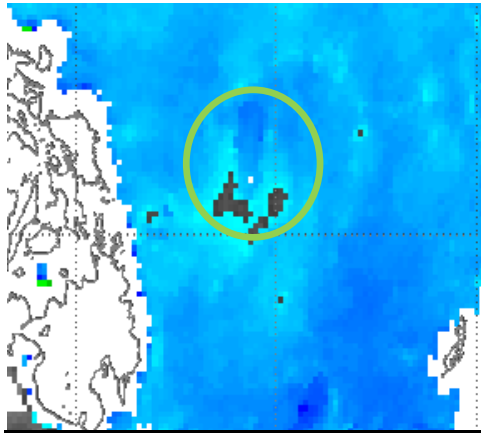
+ ~12hr



01/1628Z N21 VIIRS 3.74um – Guam DBPS Browser

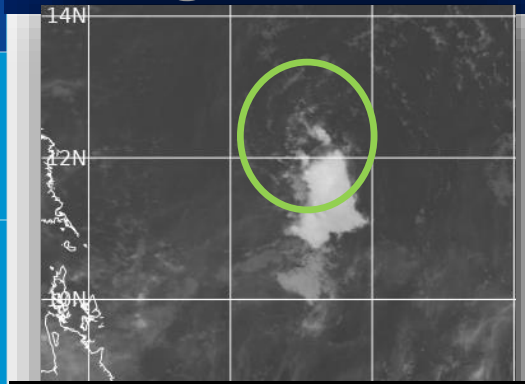


01/1630Z N21 ATMS TPW – Guam DBPS Browser

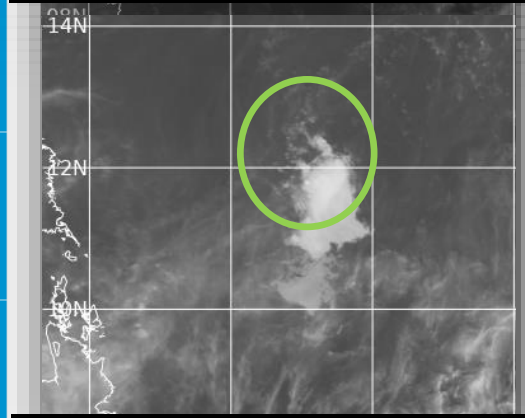


01/1706Z AMSR2 Winds – Web - NESDIS STAR

Let's go to the SATELLITES! *Time Series Lead-Up*

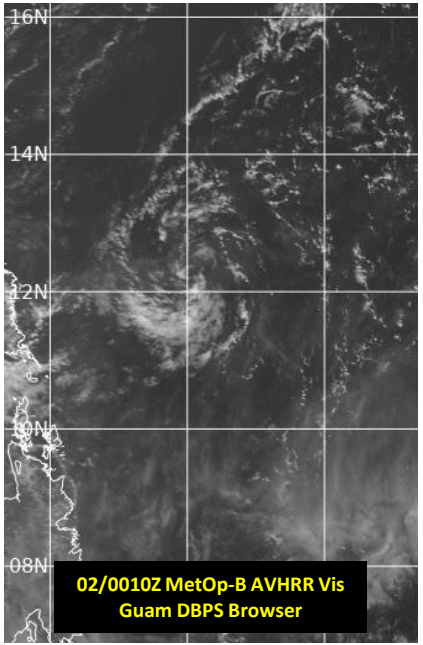


01/1737Z AQUA-MODIS BT22 (3.96um) – DBPS Browser

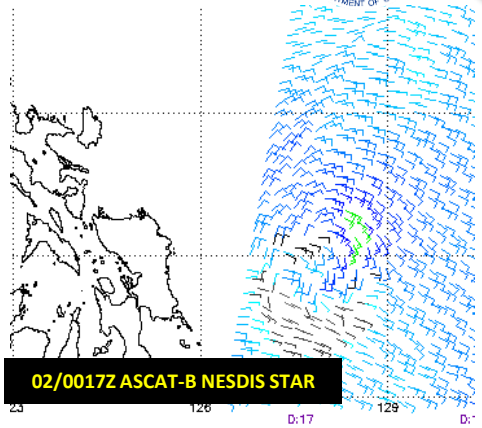


01/1737Z AQUA-MODIS BT31 (11.0um) – DBPS Browser

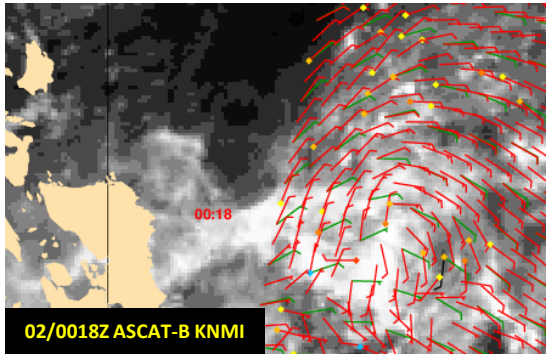
Better low-level cloud definition in 3.96!



02/0010Z MetOp-B AVHRR Vis Guam DBPS Browser

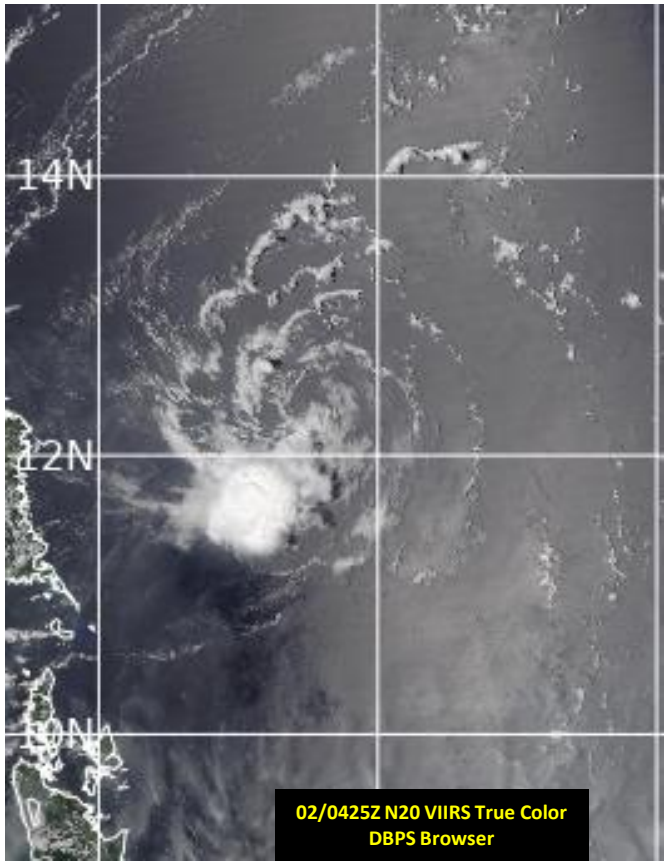


02/0017Z ASCAT-B NESDIS STAR

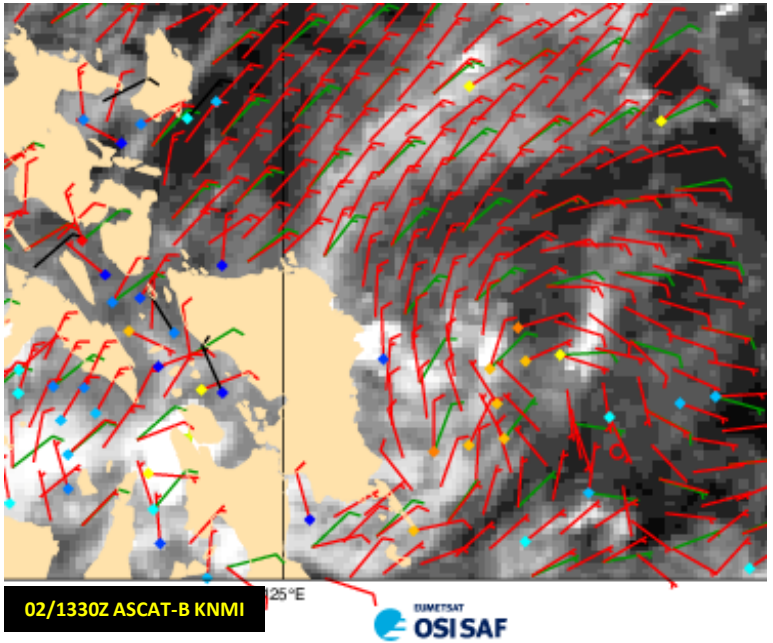


02/0018Z ASCAT-B KNMI

Let's go to the SATELLITES! *Time Series Lead-Up*

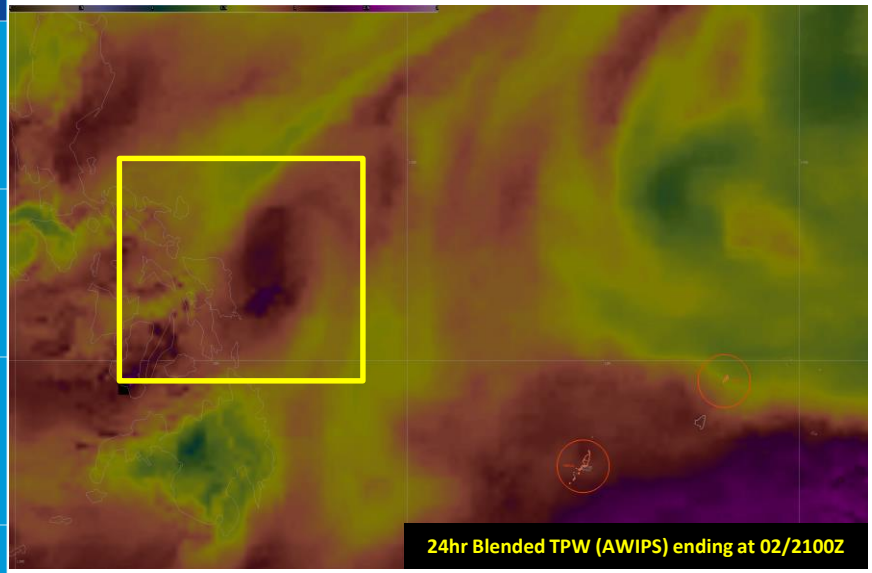


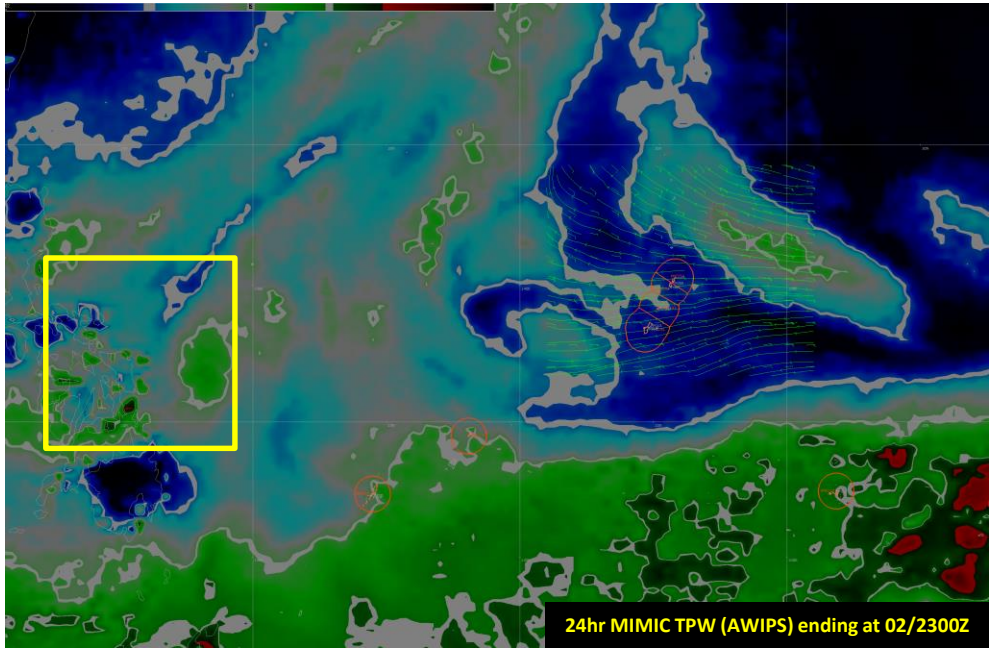
02/0425Z N20 VIIRS True Color
DBPS Browser



02/1330Z ASCAT-B KNMI

Let's go to the SATELLITES! *Animated TPW*





Takeaway Thoughts

Why LEO?

- Higher-resolution imagery
- Many additional multispectral datasets

LEO shortcomings in temporal resolution…

- Pronounced in narrow-beam sensors (altimetry, ASCAT, etc.)
- Reduced for wide scan swaths (VIS, IR, etc.)
- Reduced by presence of similar sensors onboard multiple satellites

Takeaway Thoughts

VIIRS Day-Night Band…

- Great for nighttime identification of weather features
- Great for viewing light sources and spotting active lightning

Short-Wave IR (3.74um / 3.96um LEO; 3.89um Himawari)…

- In areas of thin cirrus, more useful for detecting low-level cloud motion at night.
- Its sensitivity to heat make it ideal for searching for heat signatures

Himawari RGBs…

- **AWIPS memory-intensive. Use low frame count; have spare time to wait for loading…**

Takeaway Thoughts - ACCESSIBILITY

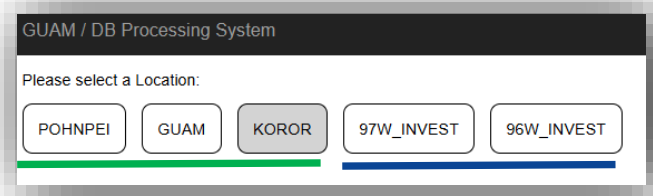
Himawari

- Backyard receiver >> AWIPS
- Internet via PRH >> AWIPS
- Lots of webpages

LEO

- Backyard receiver – ***VERY LOW*** latency (~<20min)
  - AWIPS: ***"localSat" / "Guam L/X-Band Antenna"***
  - WFO network PC web browser:
- Many webpages
  - Latency could be a couple of hours +

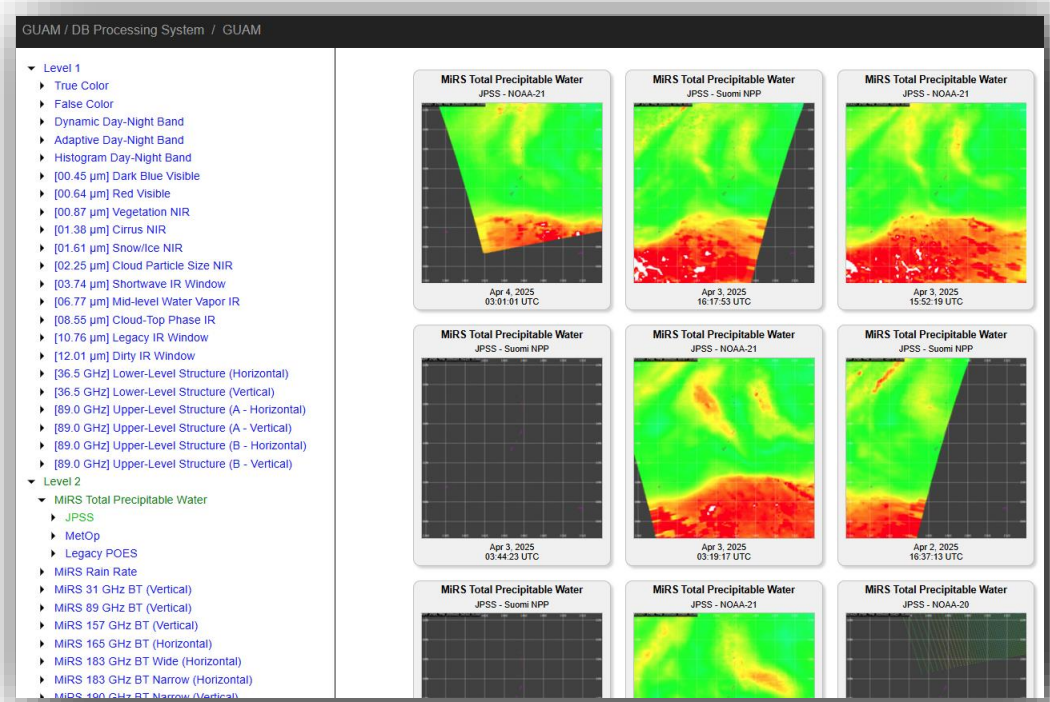
WFO LEO (Direct Broadcast) Browser



Local to Guam Web Browser for DB data products

3 Standard Geographic Areas

Dynamic Inclusion of & Centering-On INVs & TCs



GREEN highlights the dataset in the gallery. Images are chronological. Search by sensor/data type. Great for event evolution (INVs/TCs) and easy to save graphics!