



NAVAL RESEARCH LABORATORY

MARINE METEOROLOGY DIVISION
MONTEREY, CALIFORNIA



TCS08 Experiment Analysis: SFMR

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T-PARC/ TCS08 Data Management Workshop

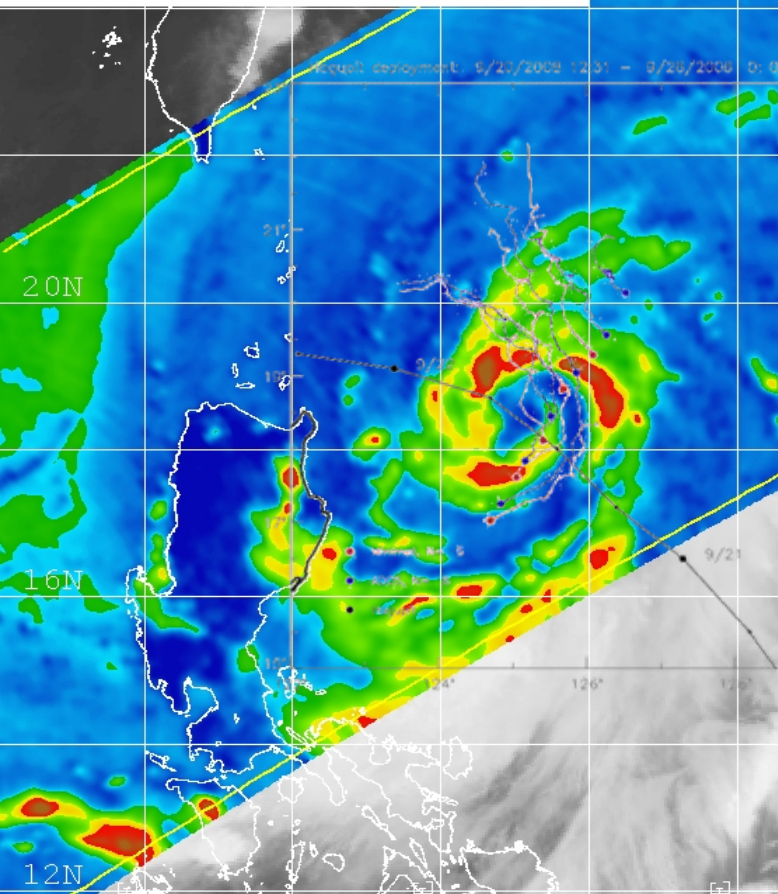
Monterey, CA

2-3, May, 2009

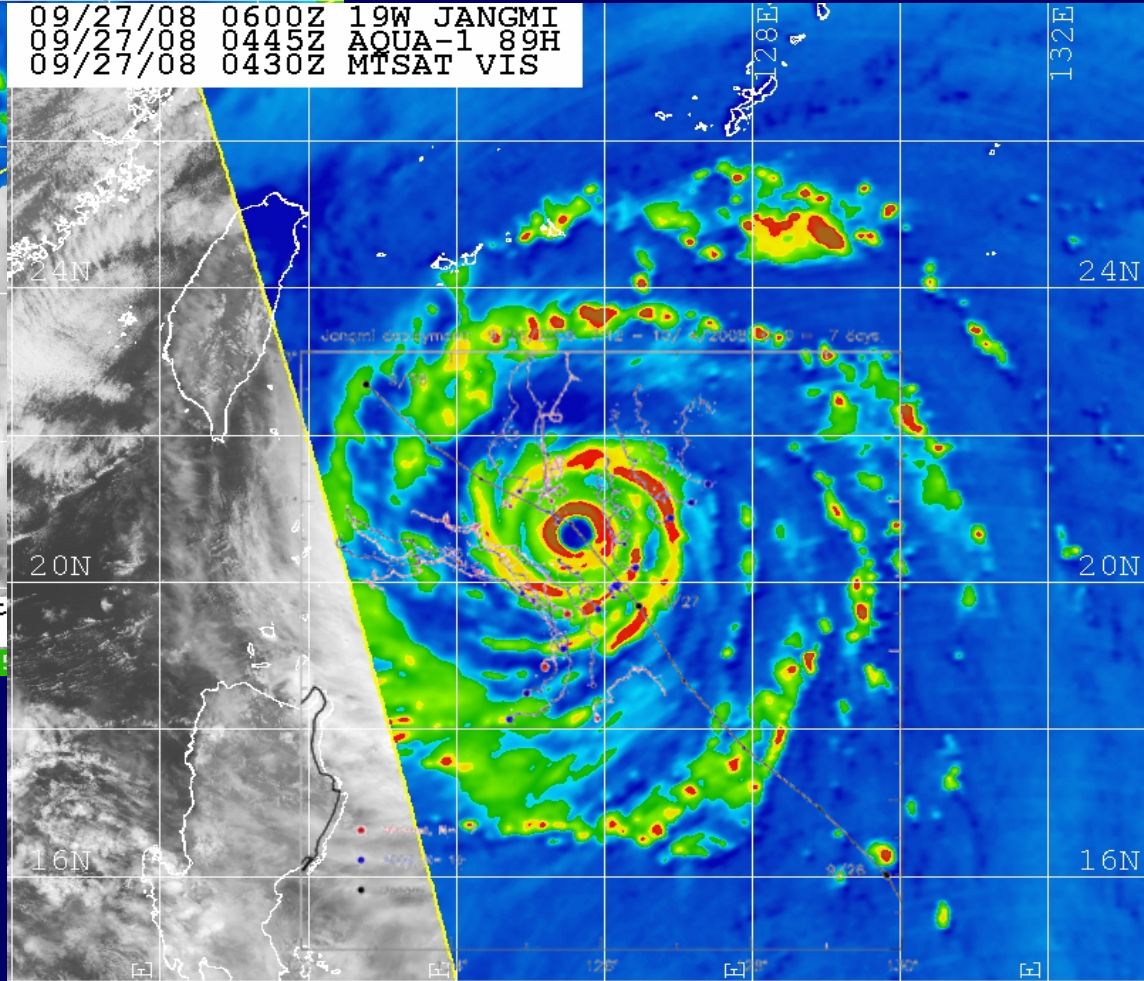


SAIC
From Science to Solutions

09/21/08 1200Z 18W HAGUPIT
 09/21/08 1441Z TRMM 85H
 09/21/08 1430Z MTSAT IR



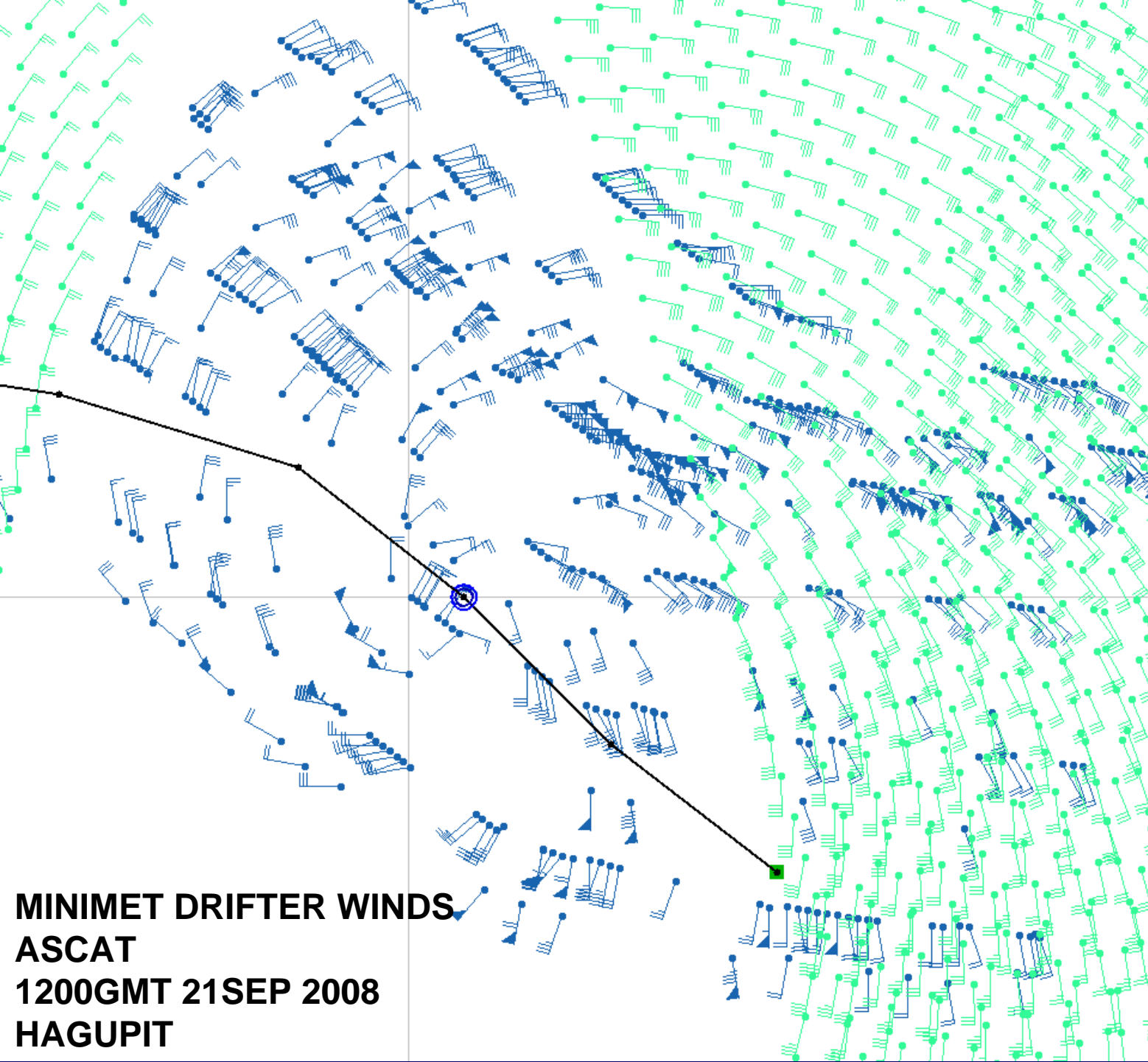
09/27/08 0600Z 19W JANGMI
 09/27/08 0445Z AQUA-1 89H
 09/27/08 0430Z MTSAT VIS



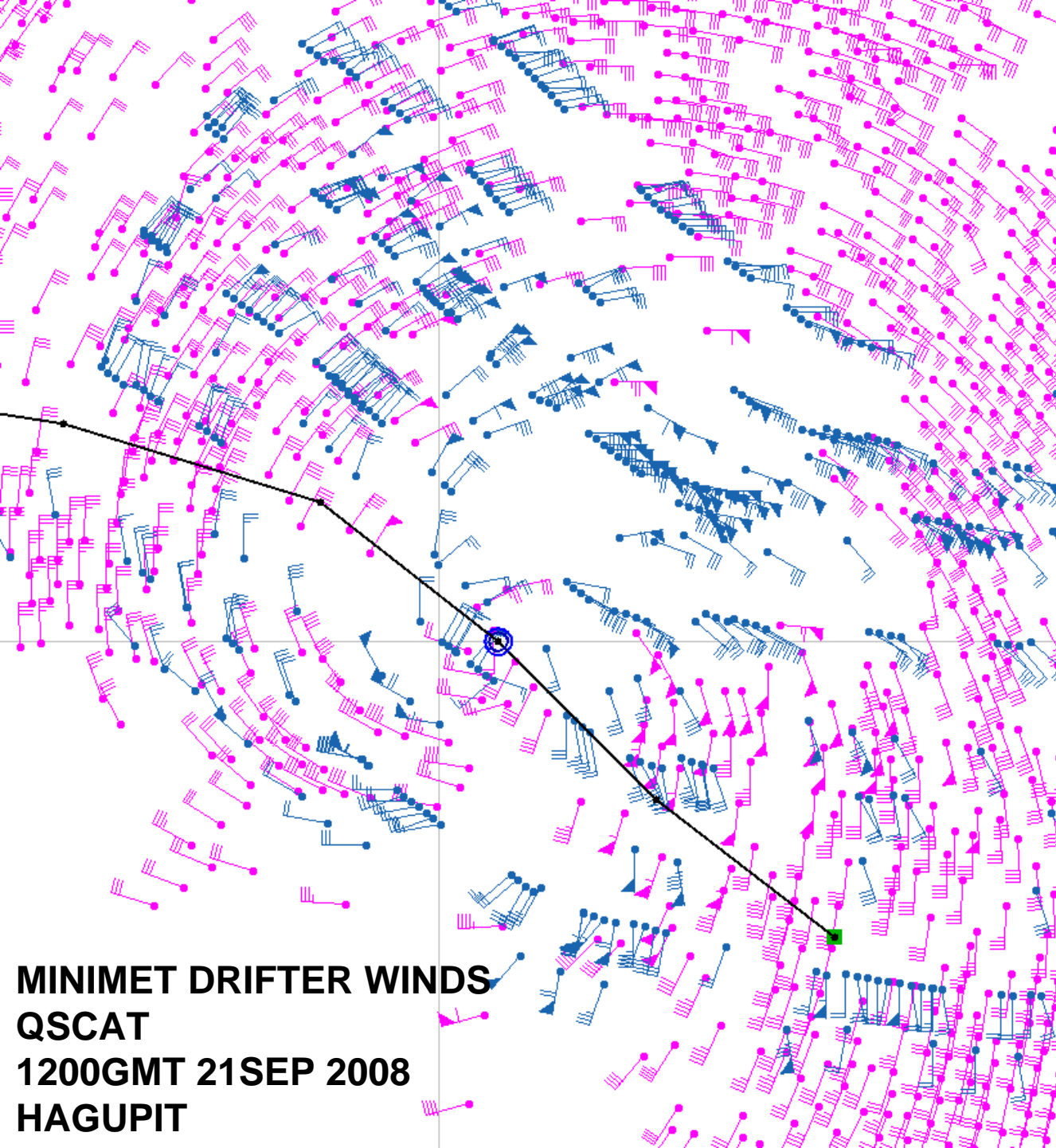
Naval Research Lab www.nrlmry.navy.mil/sat
 <-- 85H Brightness Temp (Kelvin)

Naval Research Lab www.nrlmry.navy.mil/sat_products.html
 <-- 89H Brightness Temp (Kelvin) -->

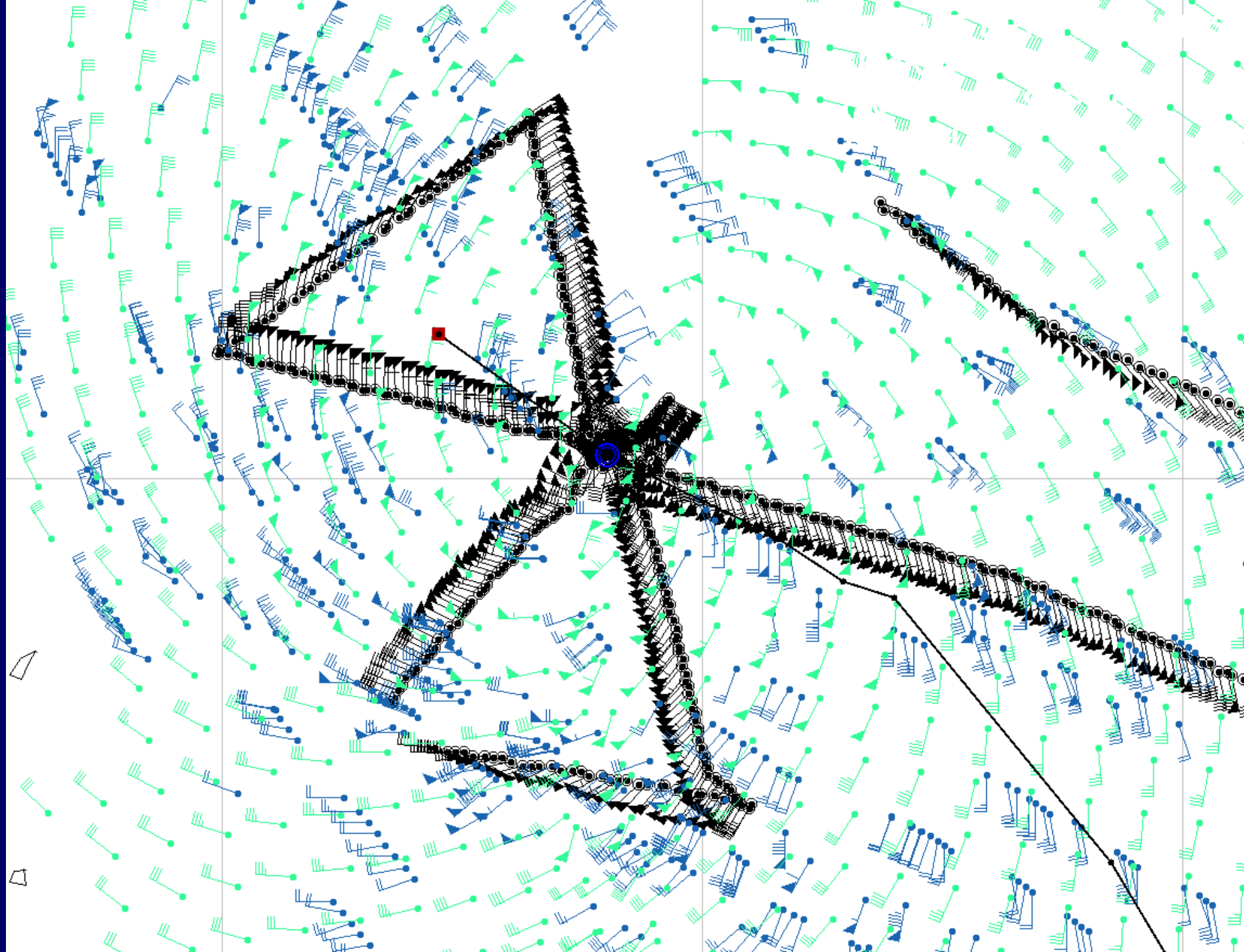


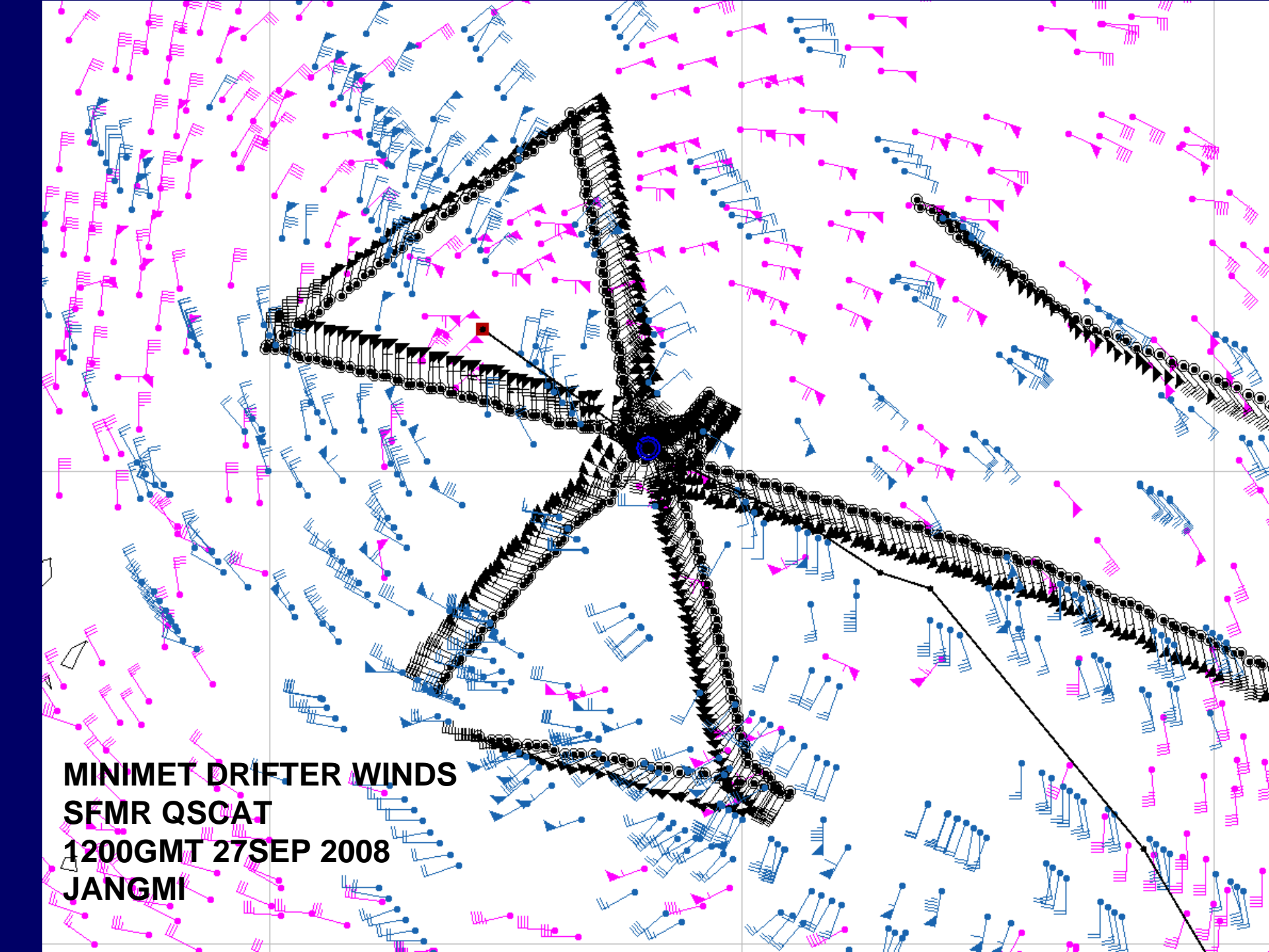


MINIMET DRIFTER WINDS
ASCAT
1200GMT 21SEP 2008
HAGUPIT

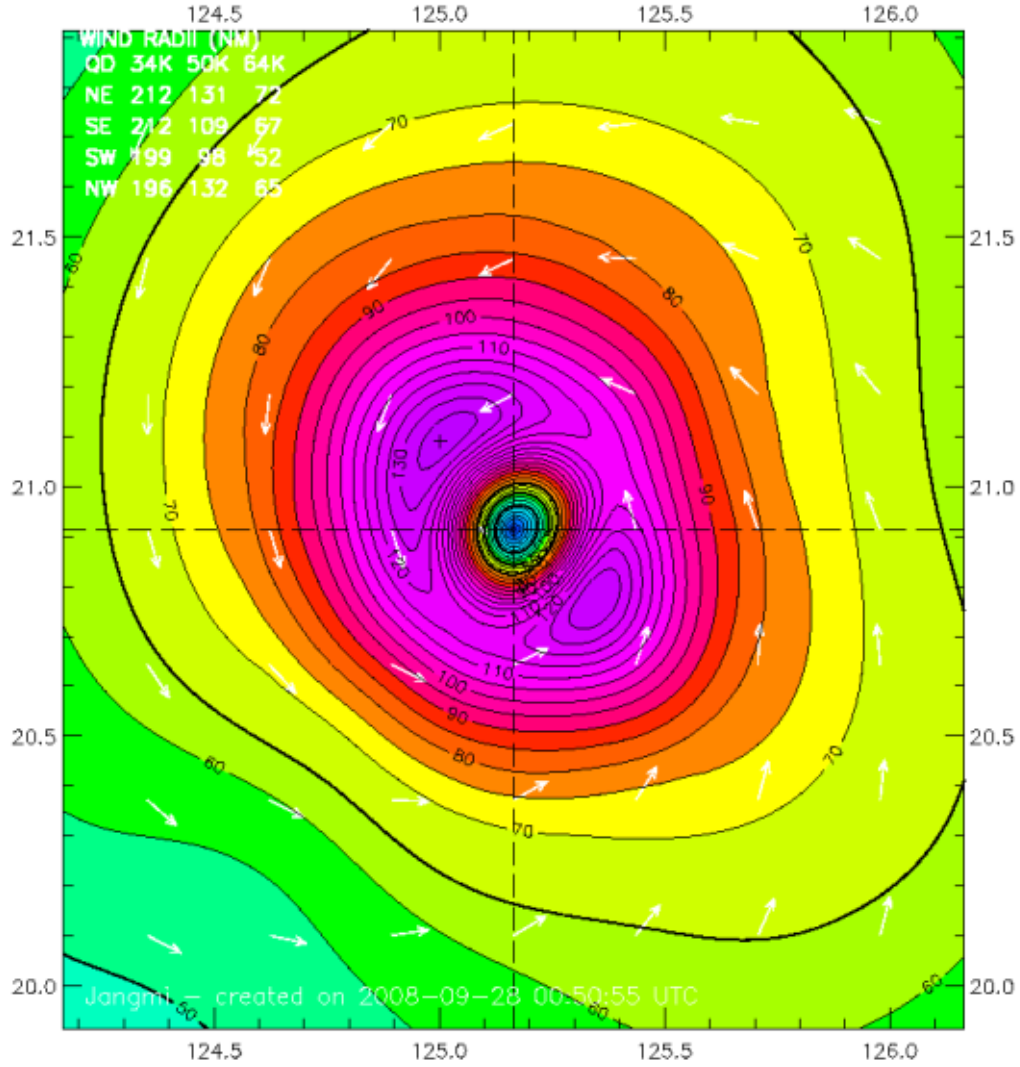


MINIMET DRIFTER WINDS
QSCAT
1200GMT 21SEP 2008
HAGUPIT

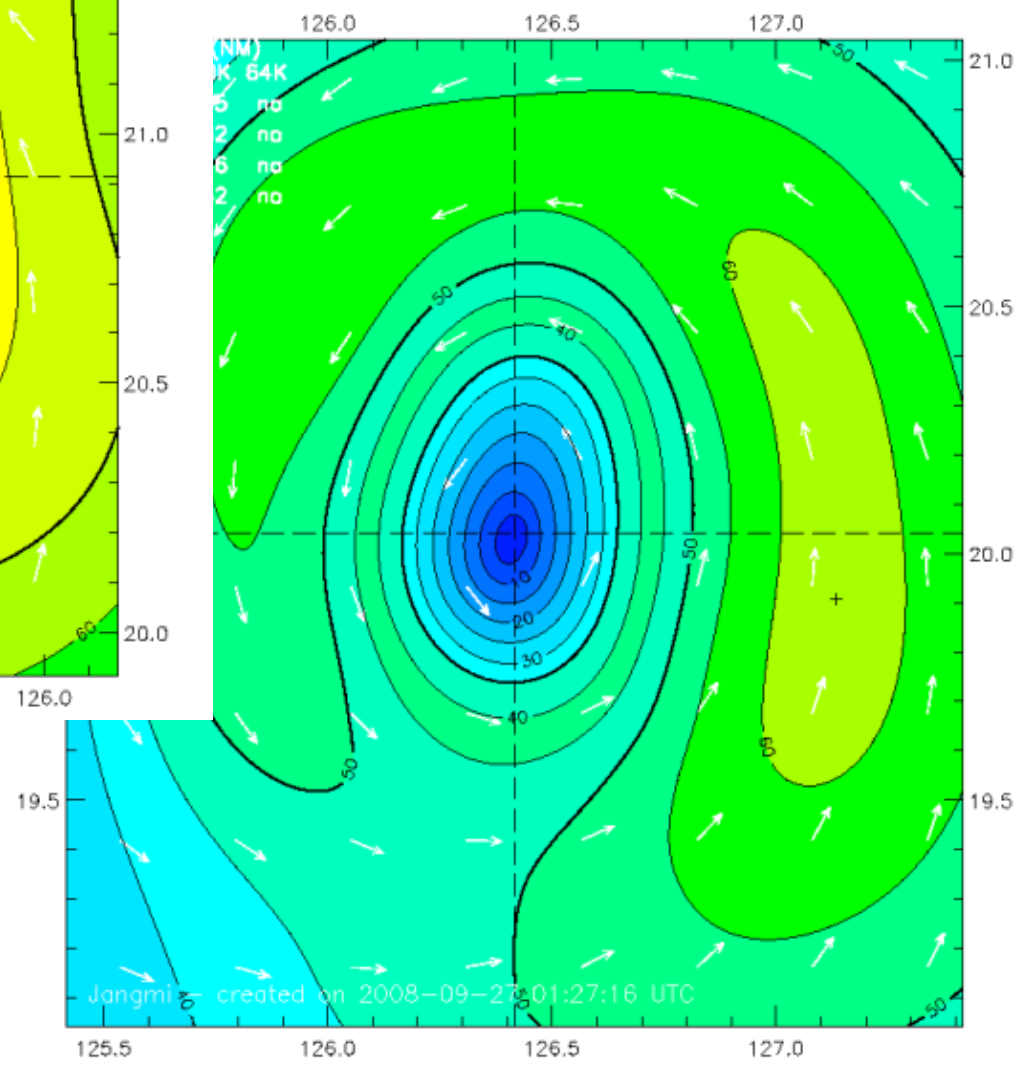




MINIMET DRIFTER WINDS
SFMR QSCAT
1200GMT 27SEP 2008
JANGMI



**QSCAT- and ASCAT-only
Data over-estimates size
And under-estimates
intensity**

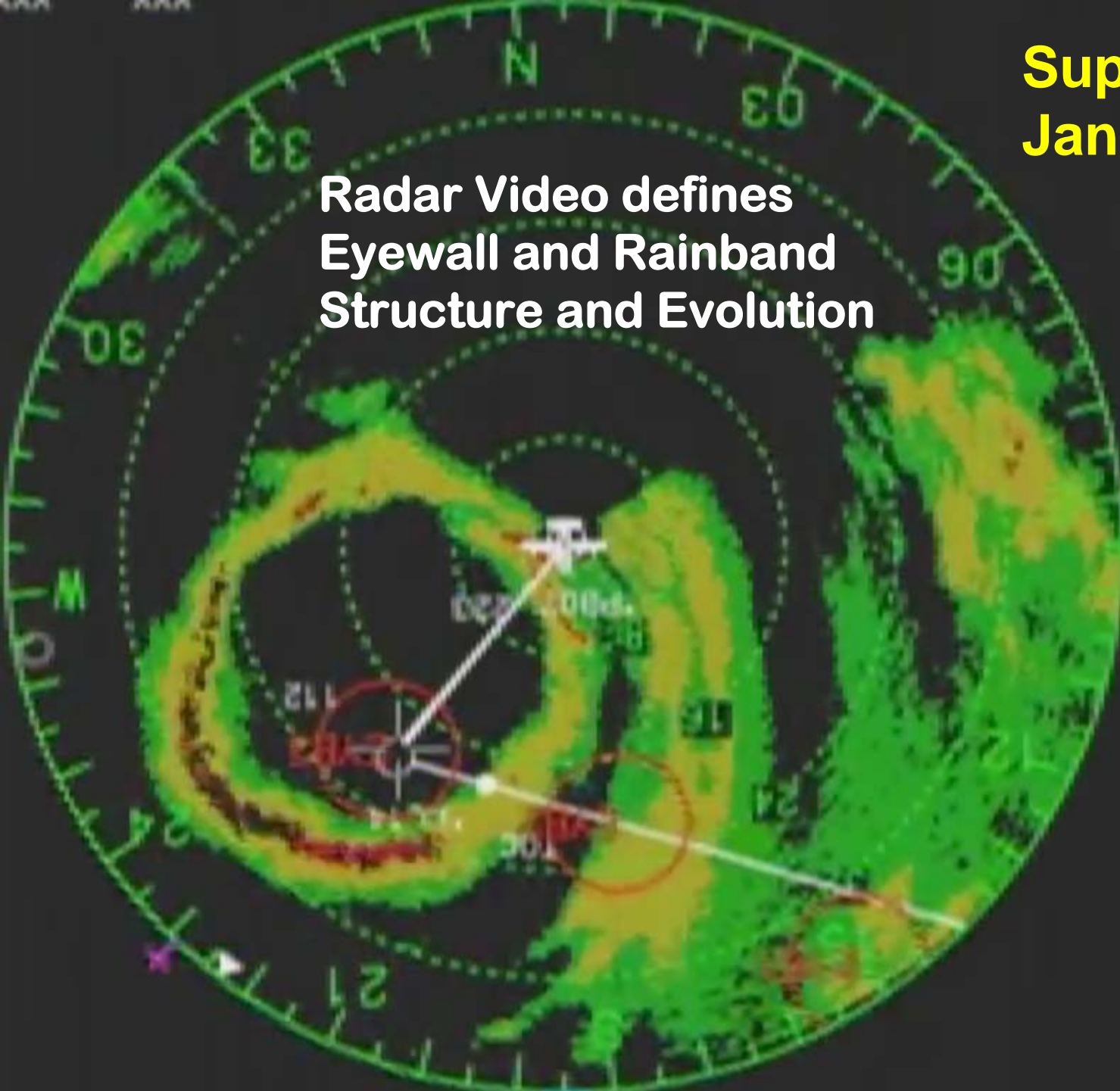


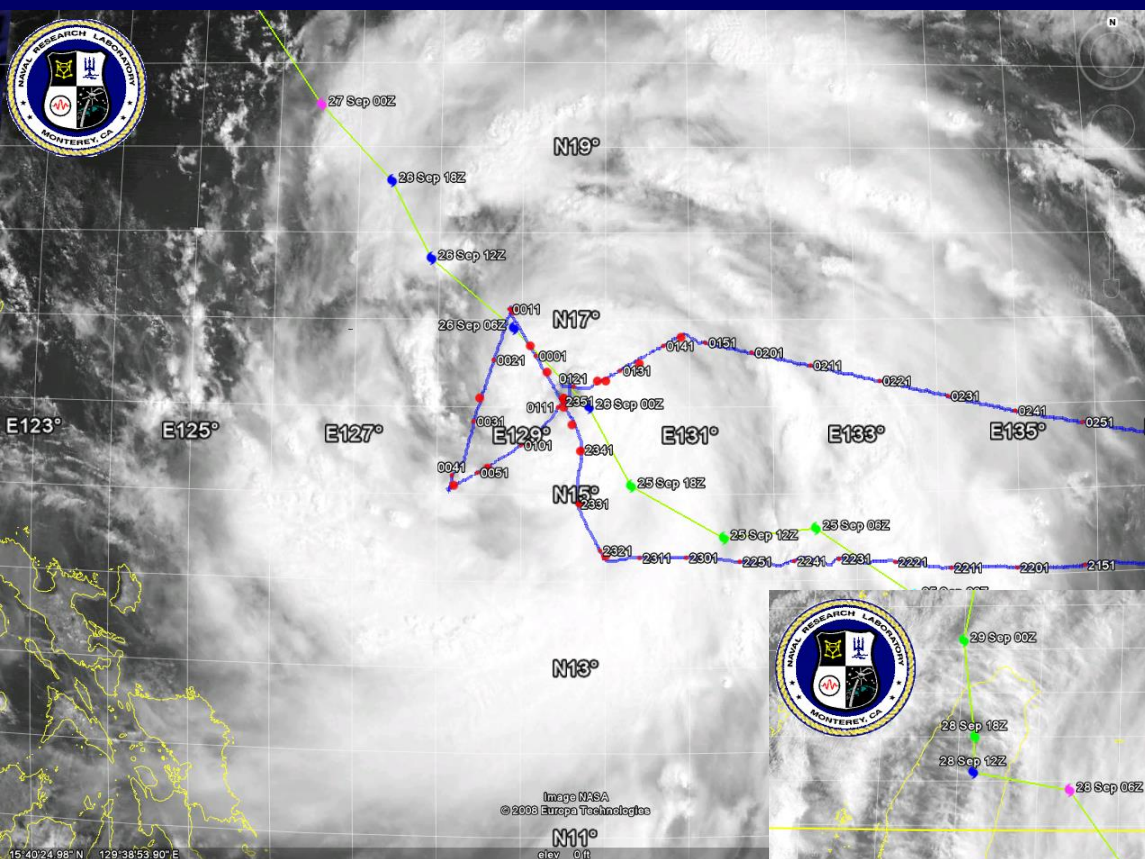
**WC-130J
SFMR data defines true
TC intensity and size**

Super-Typhoon Jangmi

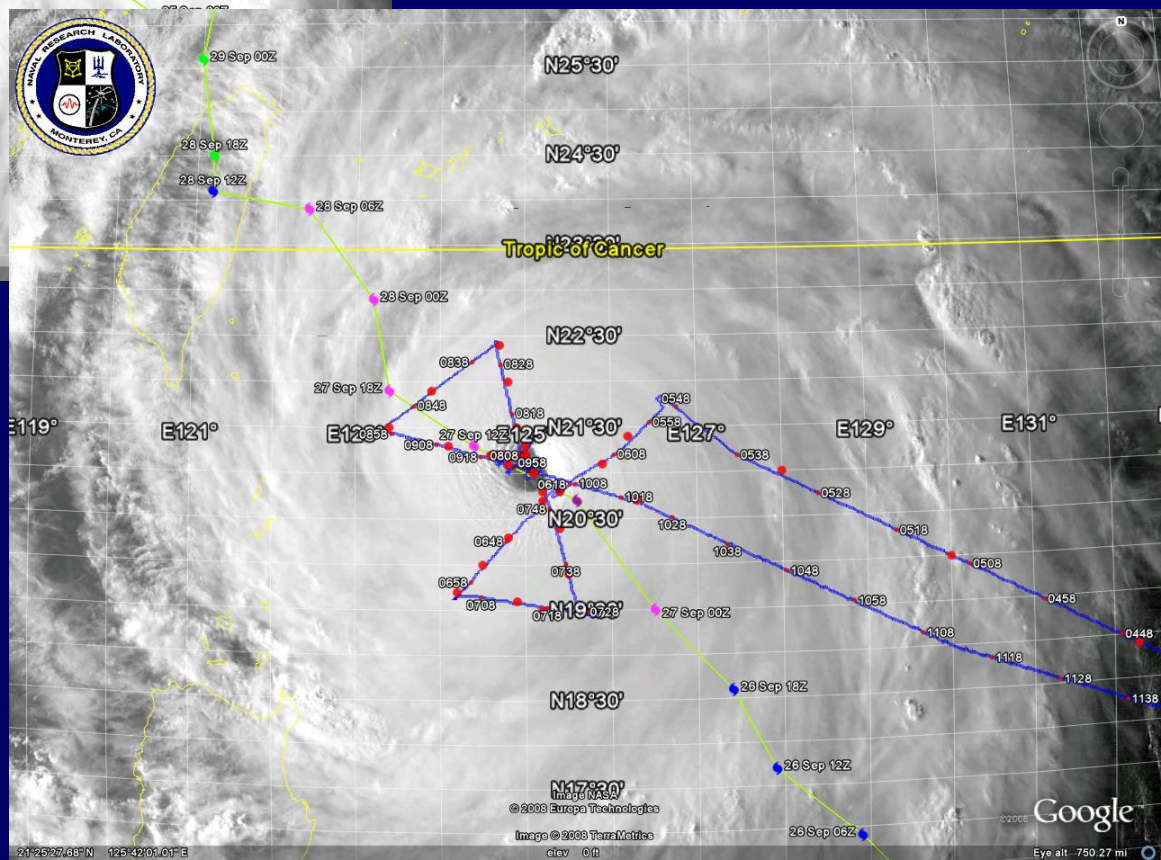
27 Sept., 2008
0935 UTC

Radar Video defines
Eyewall and Rainband
Structure and Evolution

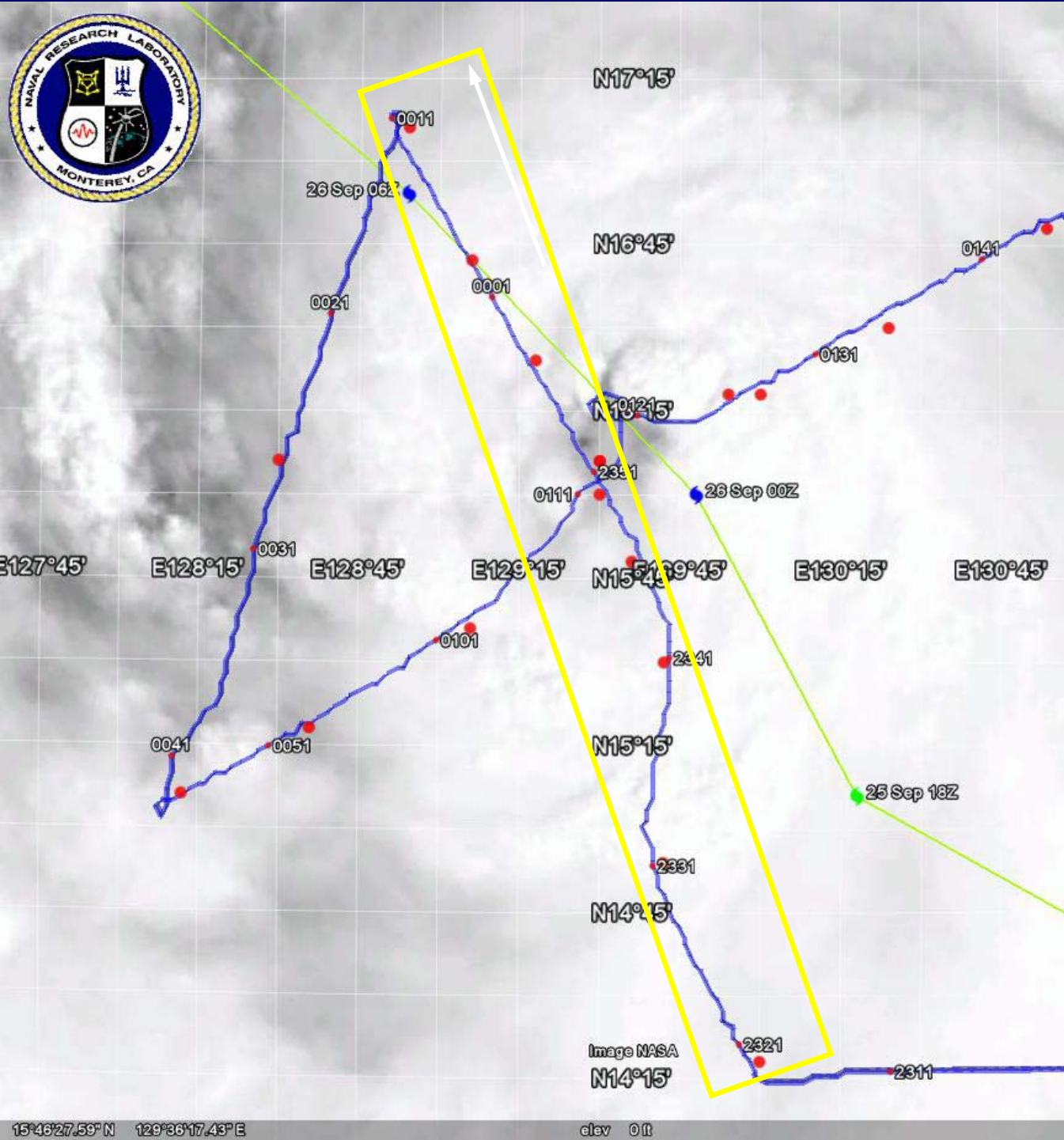




TY Jangmi (0057 UTC 26 Sep 08)



STY Jangmi (0757 UTC 27 Sep 08)

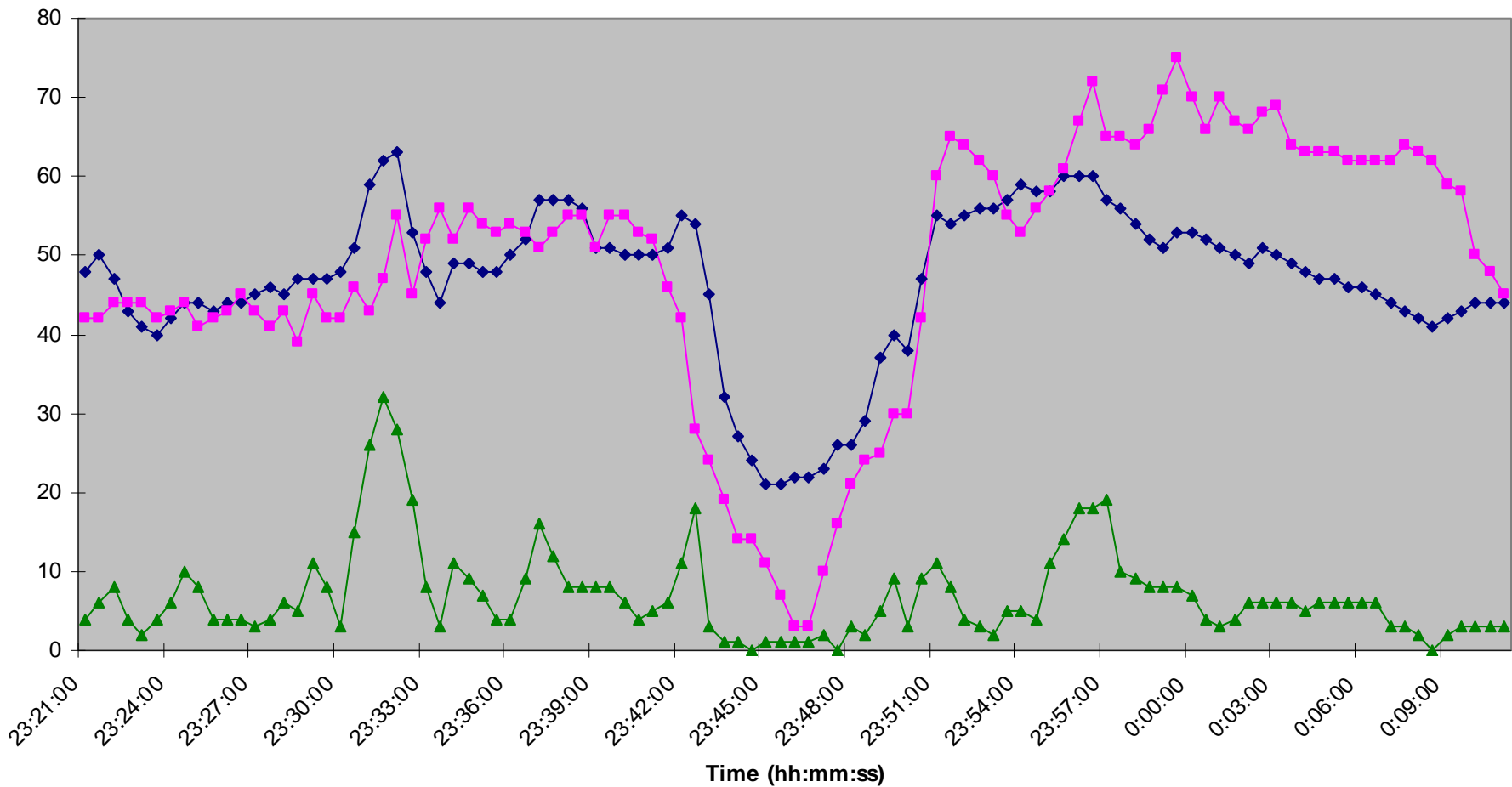


25-26 Sep Pass 1

- 2321-0011
- SE→NW
- 1st center fix
– 15.78N
129.64E
- MSLP 973
hPa

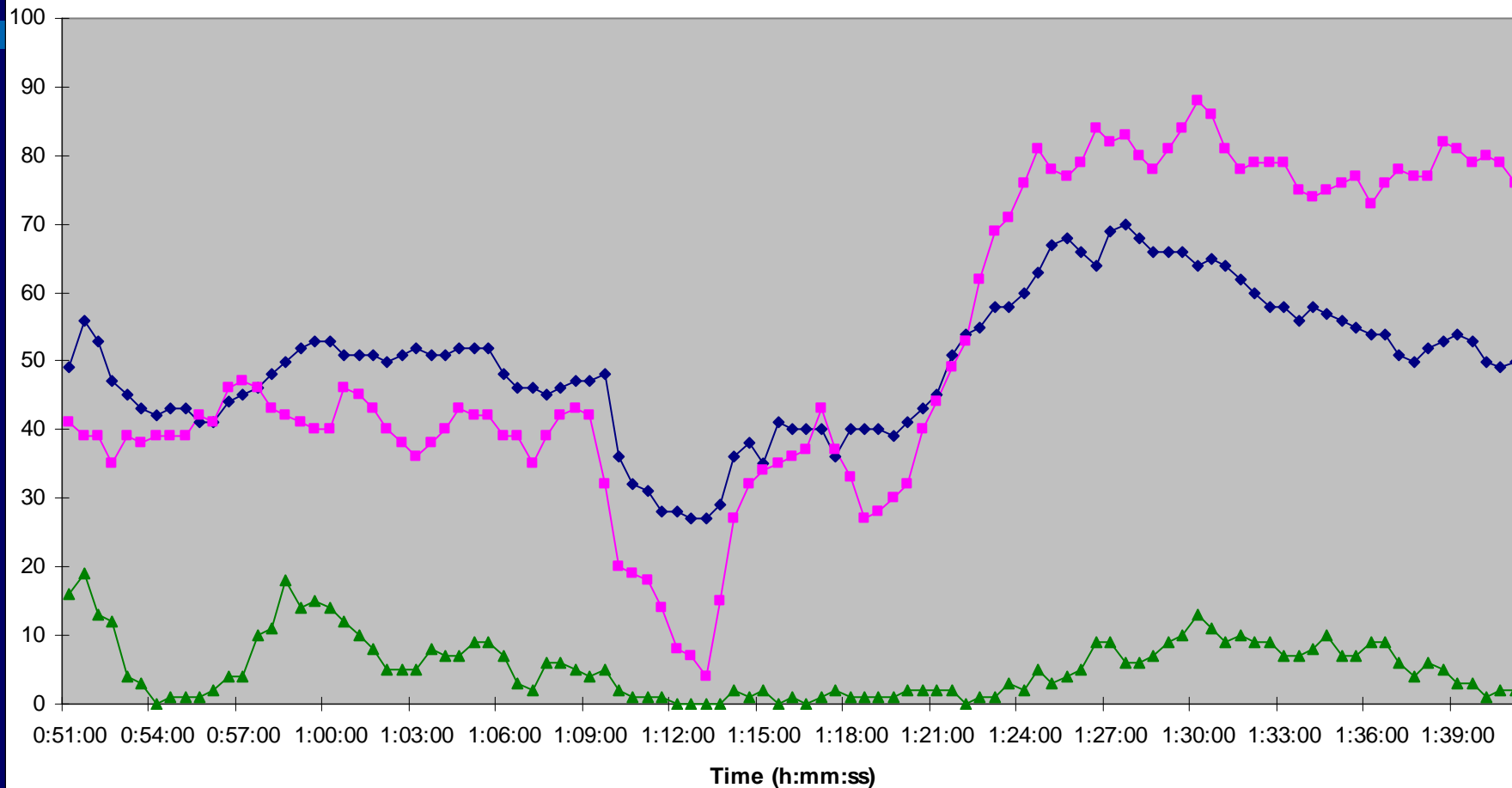
TY Jangmi C-130 Center Penetration; Pass 1: 25-26 Sep 08; SE-NW

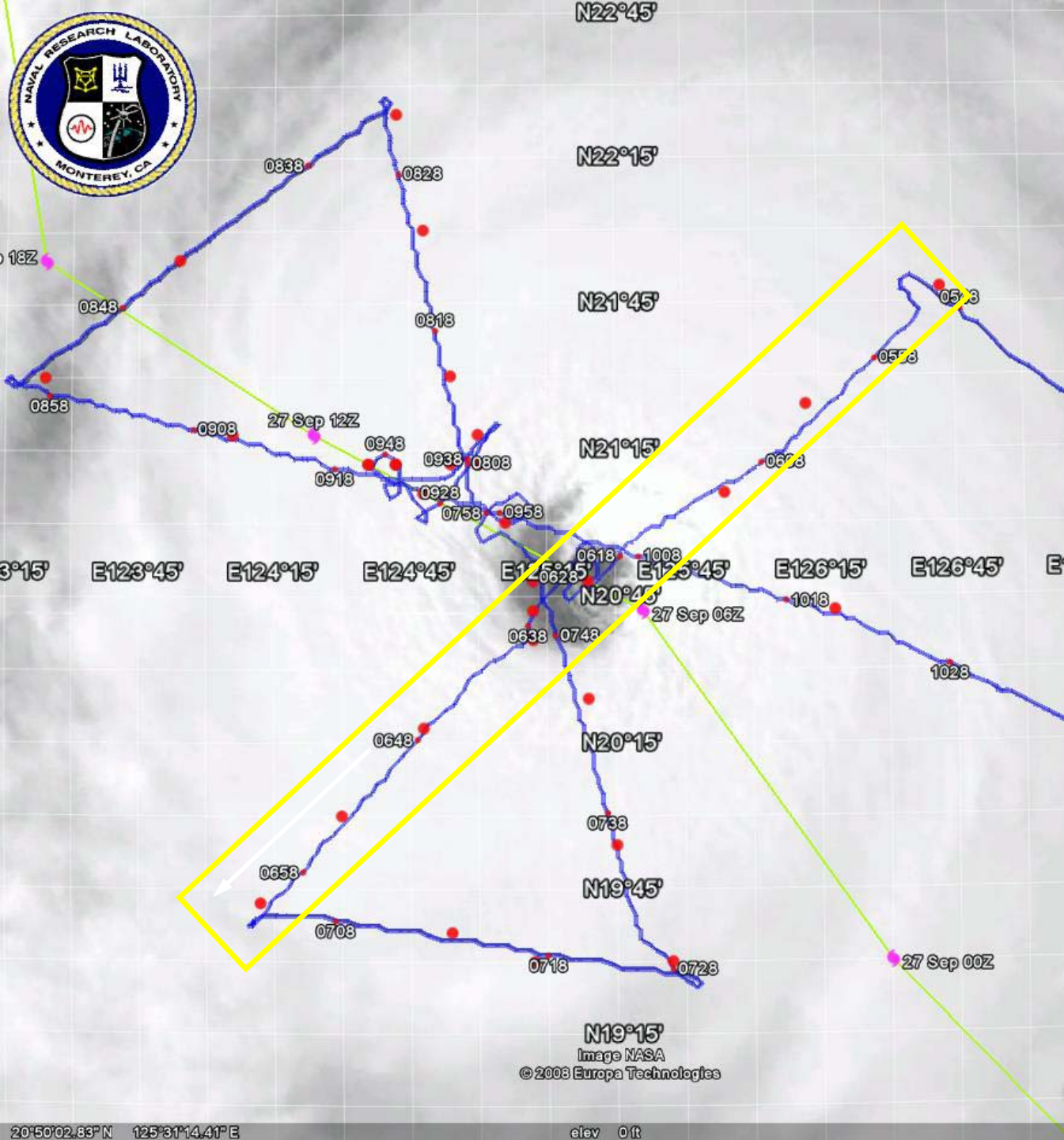
—◆— sfc winds (kts) —■— flt level winds (kts) —▲— rain rate (mm/hr)



TY Jangmi C-130 Center Penetration; Pass 2: 26 Sep 08; SW-NE

—◆— sfc winds (kts) —■— flt level winds (kts) —▲— rain rate (mm/hr)



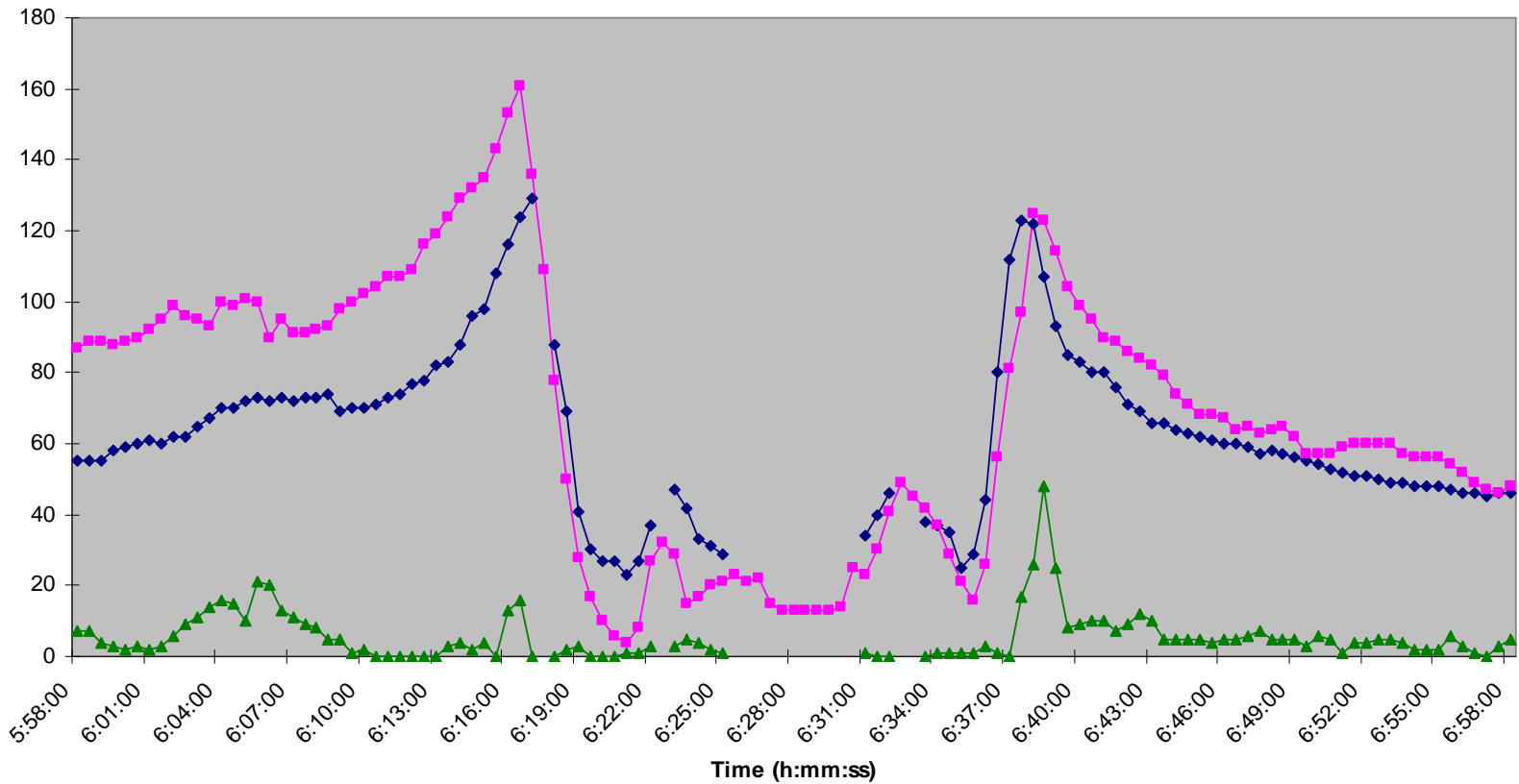


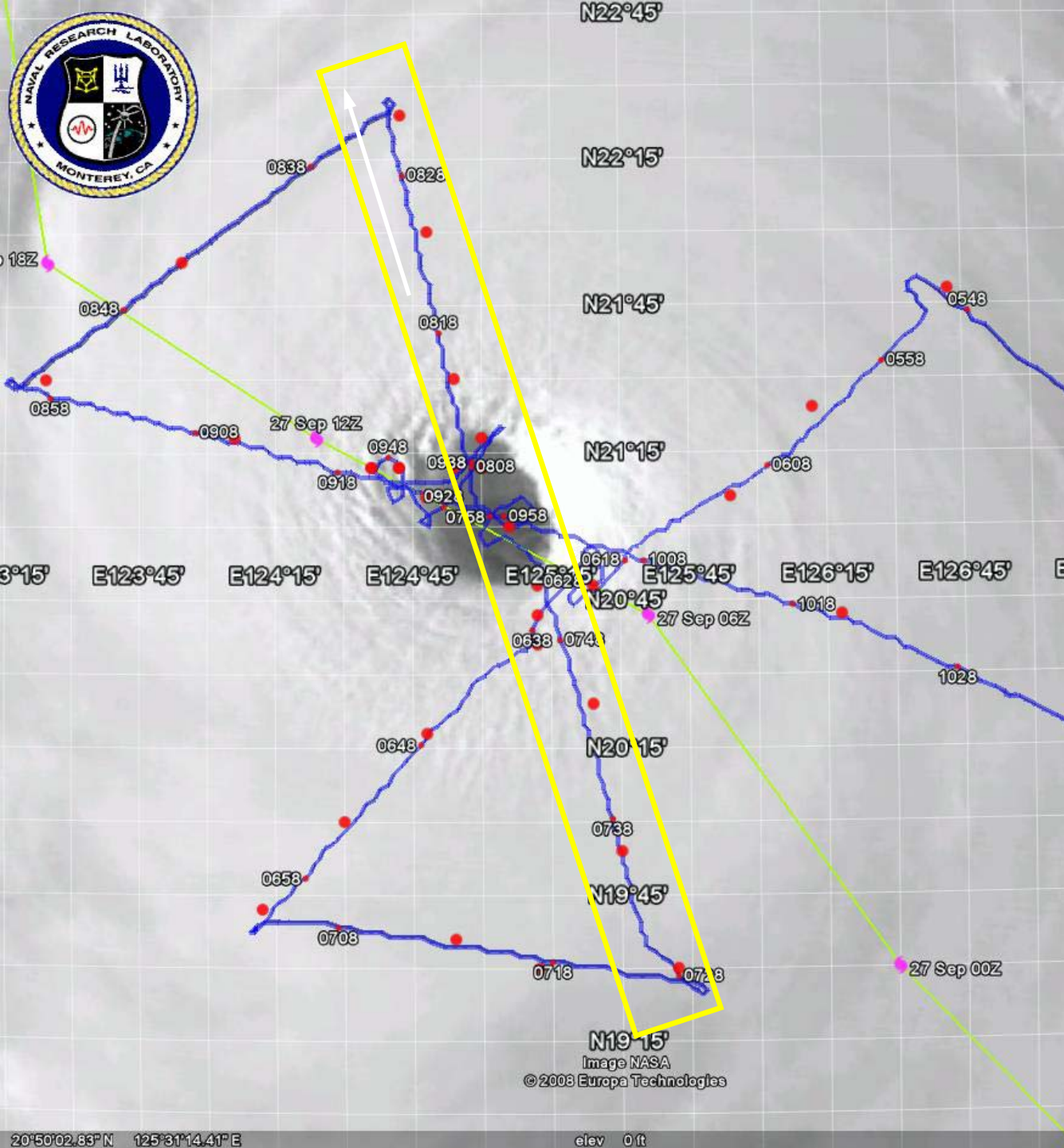
27 Sep WC130J Pass 1

- **0558-0658**
 - Ctr fix at 0621
 - Sat shot at left from 0630
- **NE→SW**
- **1st center fix**
 - 20.74N
 - 125.36E
- **MSLP 907 hPa**

STY Jangmi C-130 Center Penetration; Pass 1: 27 Sep 08; NE-SW

—◆— sfc winds (kts) —■— flt level winds (kts) —▲— rain rate (mm/hr)



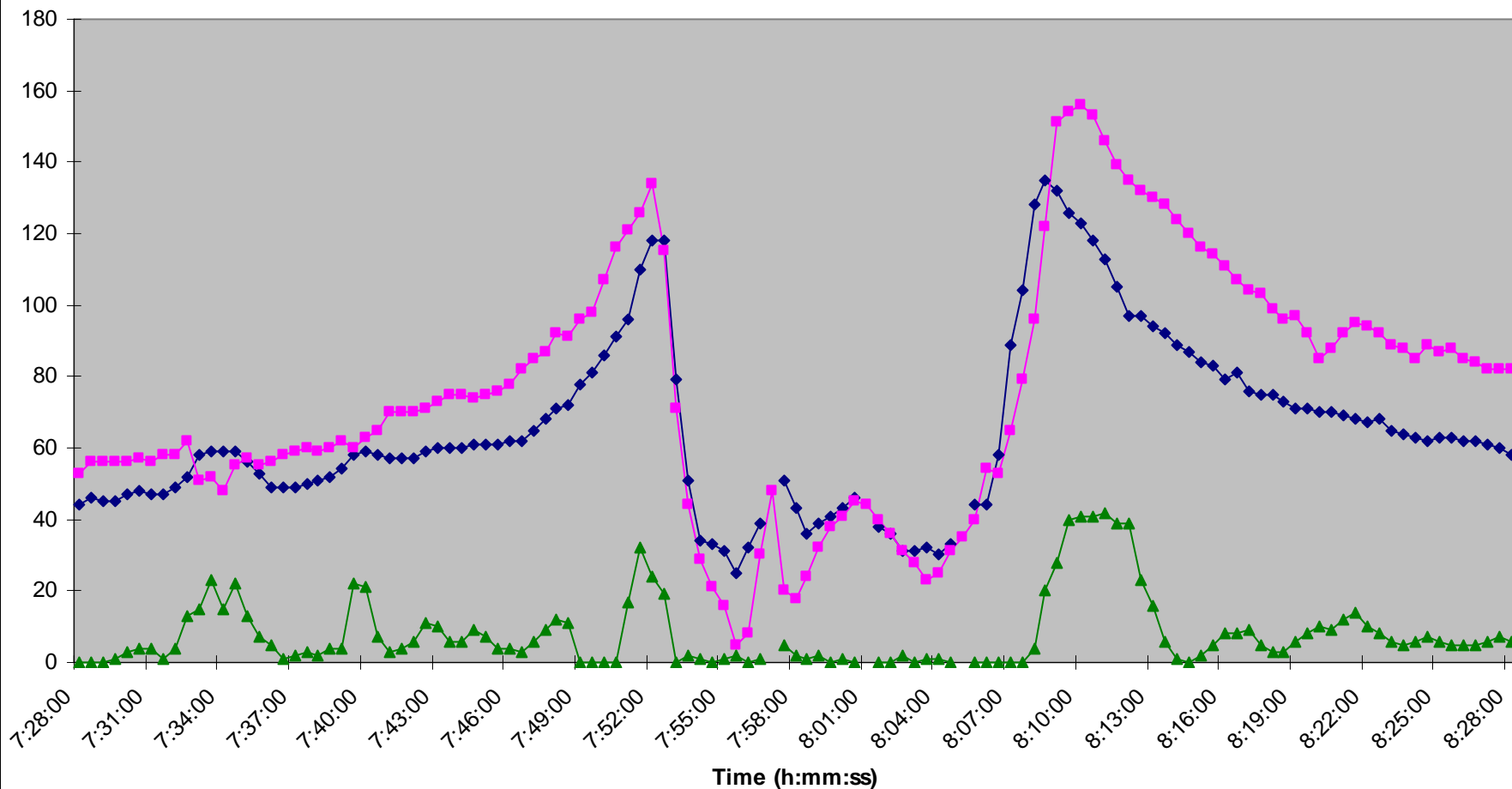


27 Sep WC130J Pass 2

- **0728-0828**
 - Ctr fix at 0755
 - Sat shot at left from 0757
- **SE→NW**
- **2nd center fix**
 - 20.95N
125.07E
- **MSLP 906hPa**

STY Jangmi C-130 Center Penetration; Pass 2: 27 Sep 08; SE-NW

◆ sfc winds (kts) ■ flt level winds (kts) ▲ rain rate (mm/hr)





Brown et al, Best Track, Dvorak (ADT), and SFMR

