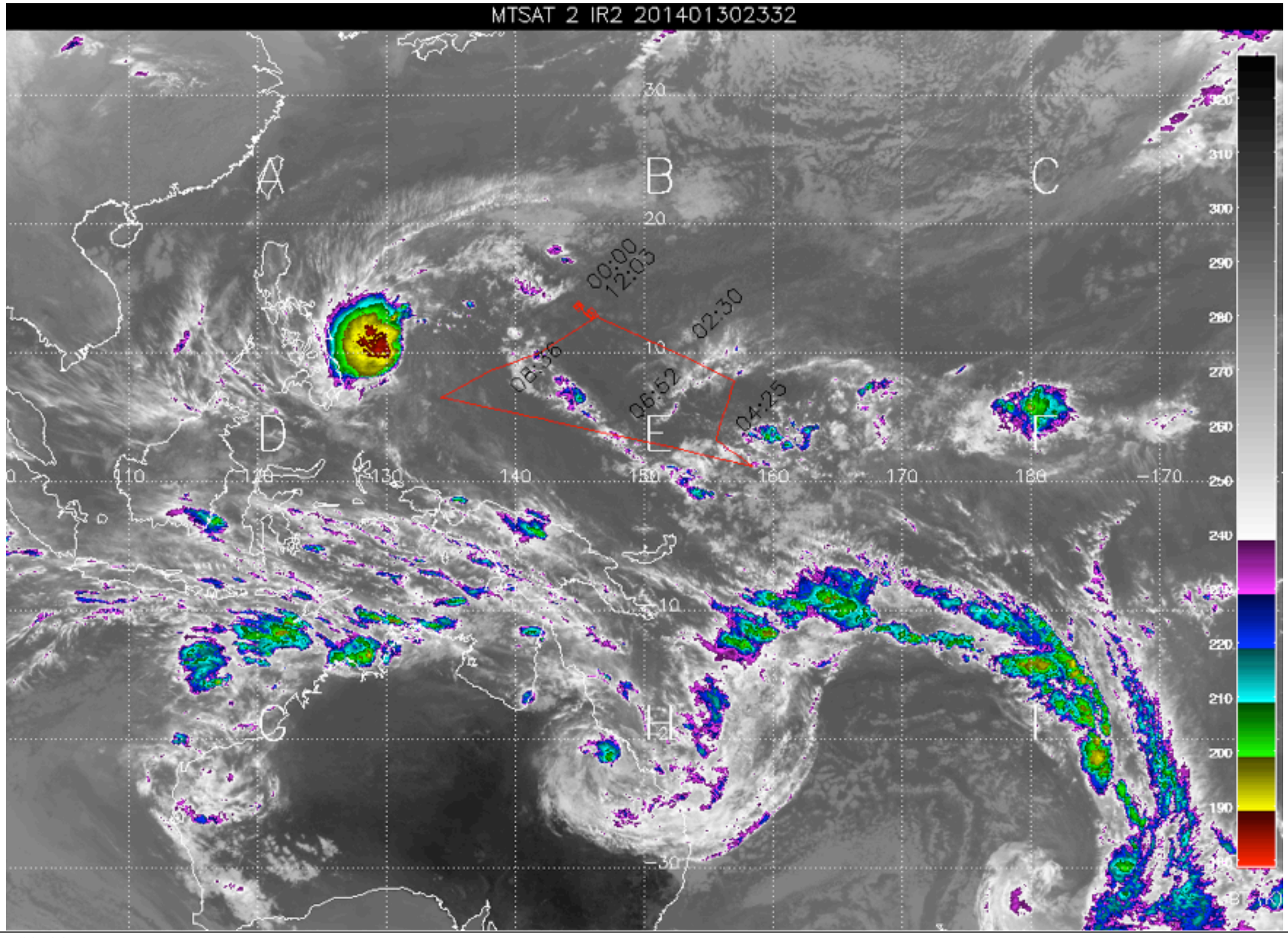
metbrief: 2014-01-31

(next planned flight 2014-02-01 Sat 6AM take-off)

- 02-01 Saturday condition...
  - 6AM takeoff: good (dry, 15 knot NE winds, 45% cloud cover, cloud base ~1900 ft)
  - 8PM landing: ⬇ after ~4PM (increasing cloud cover, light showers, stronger 20-25 knot NE winds)
- 02-02 Sunday condition...
  - noon takeoff better than 6AM takeoff (isolated showers, 20-25 knot E 080 winds)
  - landing: decreasing (20 knot E) winds
  - broken clouds with base ~1600 ft
- Outlook:
  - trade-wind disturbance poorly defined in models, but may affects us into Monday
    - takeoff: 20 knot E 080 winds; landing 15-20 knot E 090 winds
    - broken clouds, changing to scattered clouds, cloud base ~1600 ft
  - Tuesday looks okay (low precip probability, 15-20 knot E winds)
  - front approaches Guam from NW later next week (Wed?)

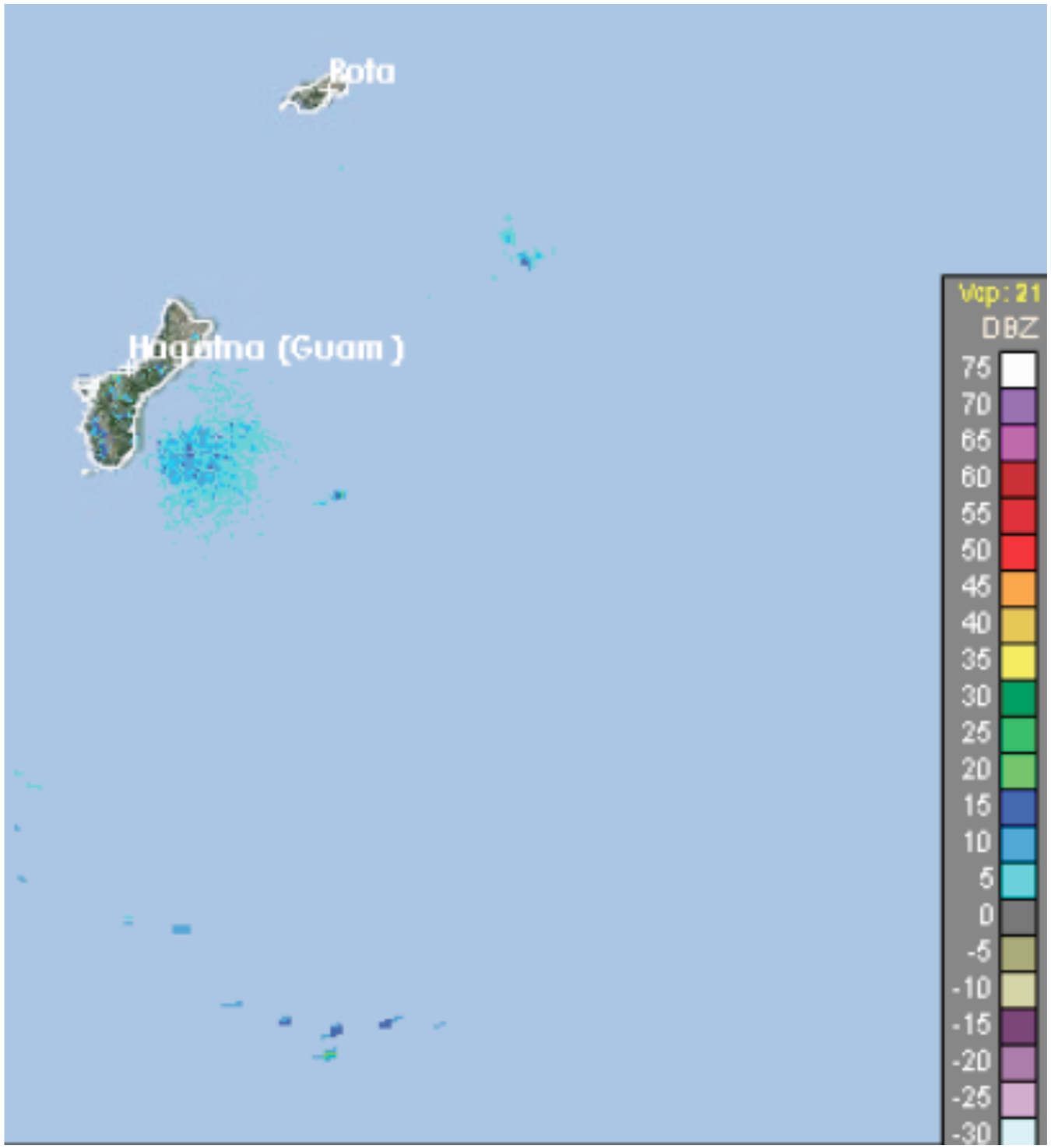
‘current’ condition:

satellite IR imagery on 2014-01-31, ~00UTC
(01-31 Fri, ~10AM)



‘current’ condition:

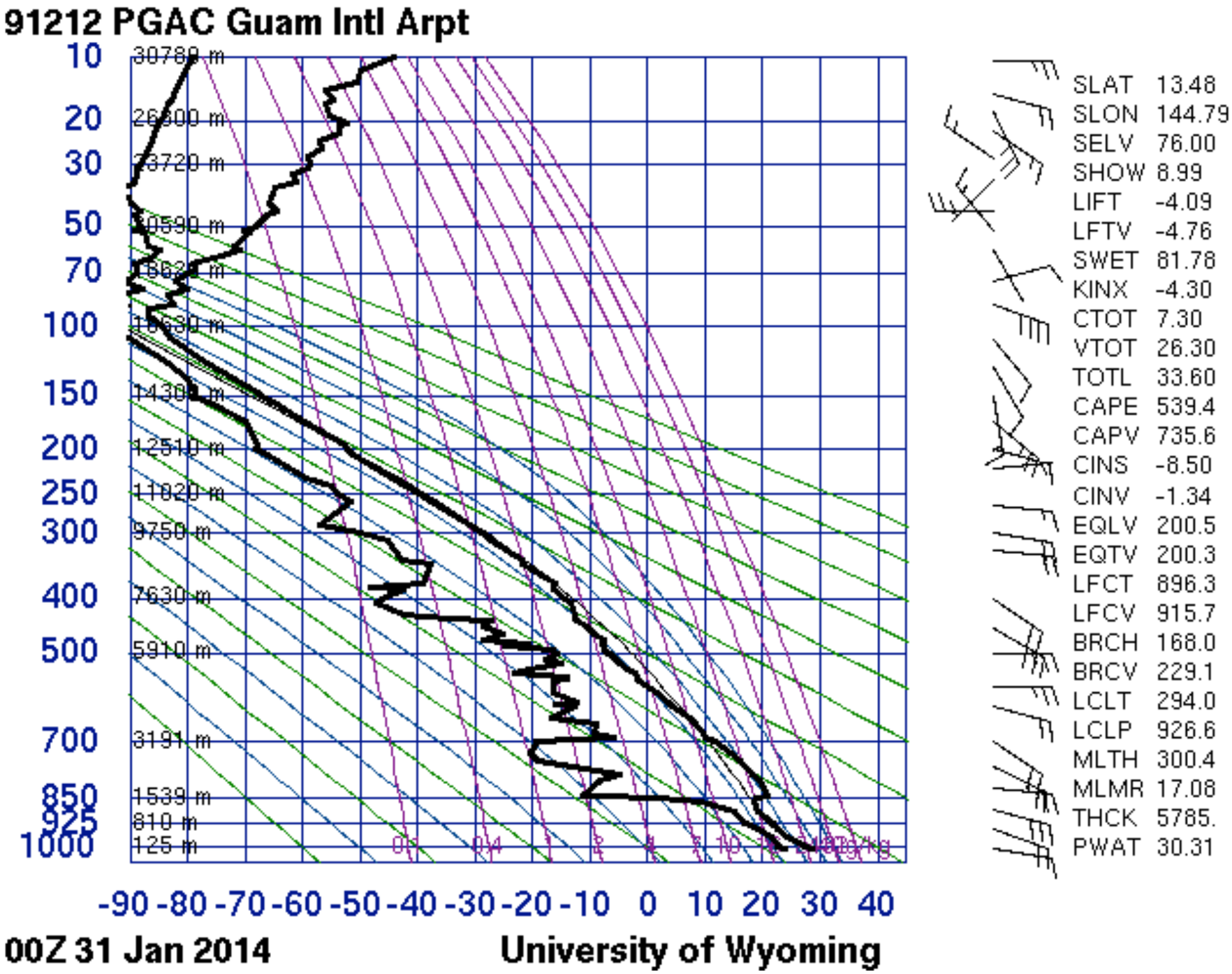
radar on 2014-01-30, 22UTC
(01-31 Fri, 08AM)



•light showers over Guam and offshore to the east

‘current’ condition:

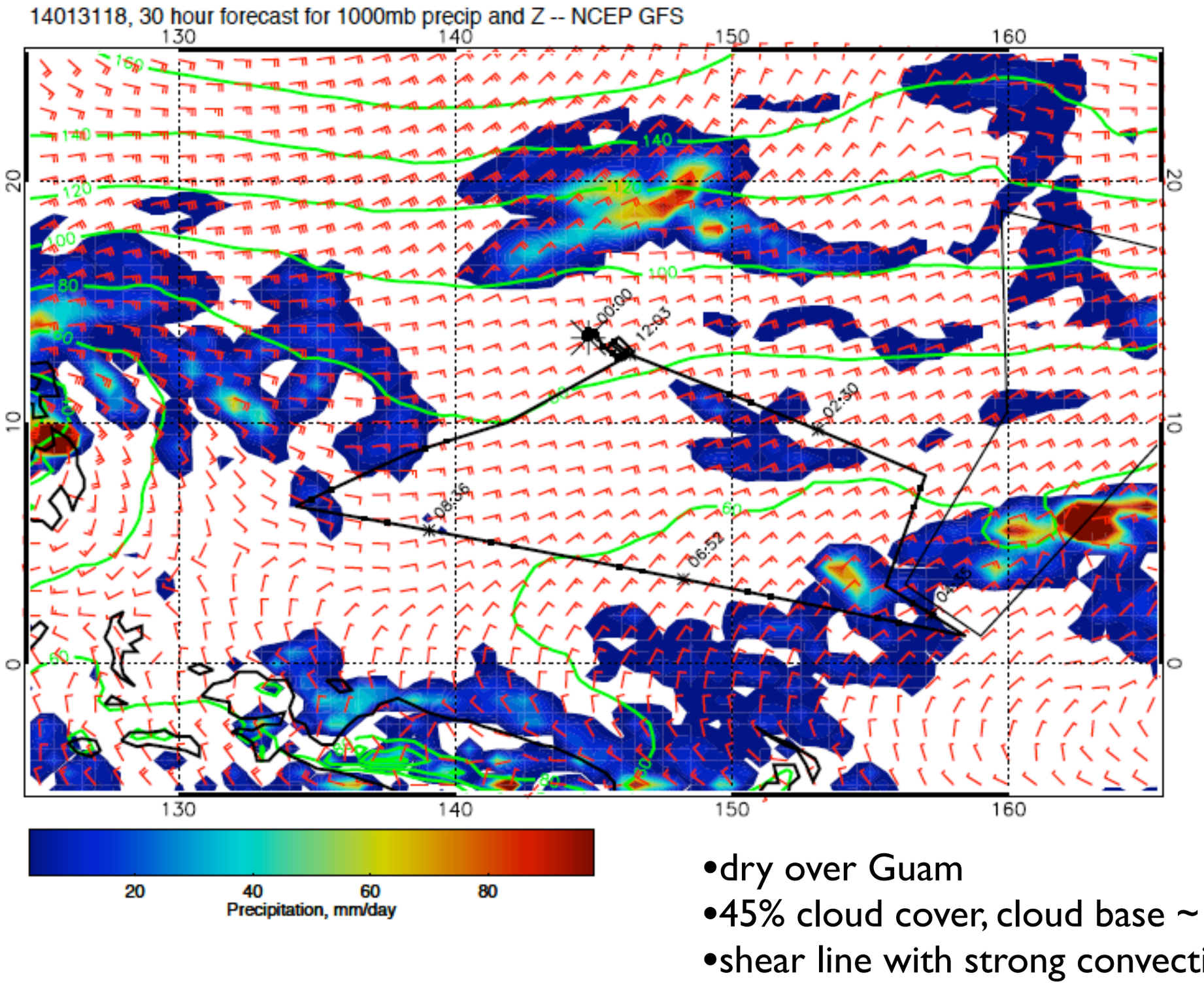
soundings on 2014-01-31, 00UTC
(01-31 Fri, 10AM)



- drier air mass
- colder tropopause T (-90 deg) than in the past week

‘Sat take-off’ condition (GFS):

1000mb precip & winds on 2014-01-31, 18UTC (02-01 Sat, 04AM)



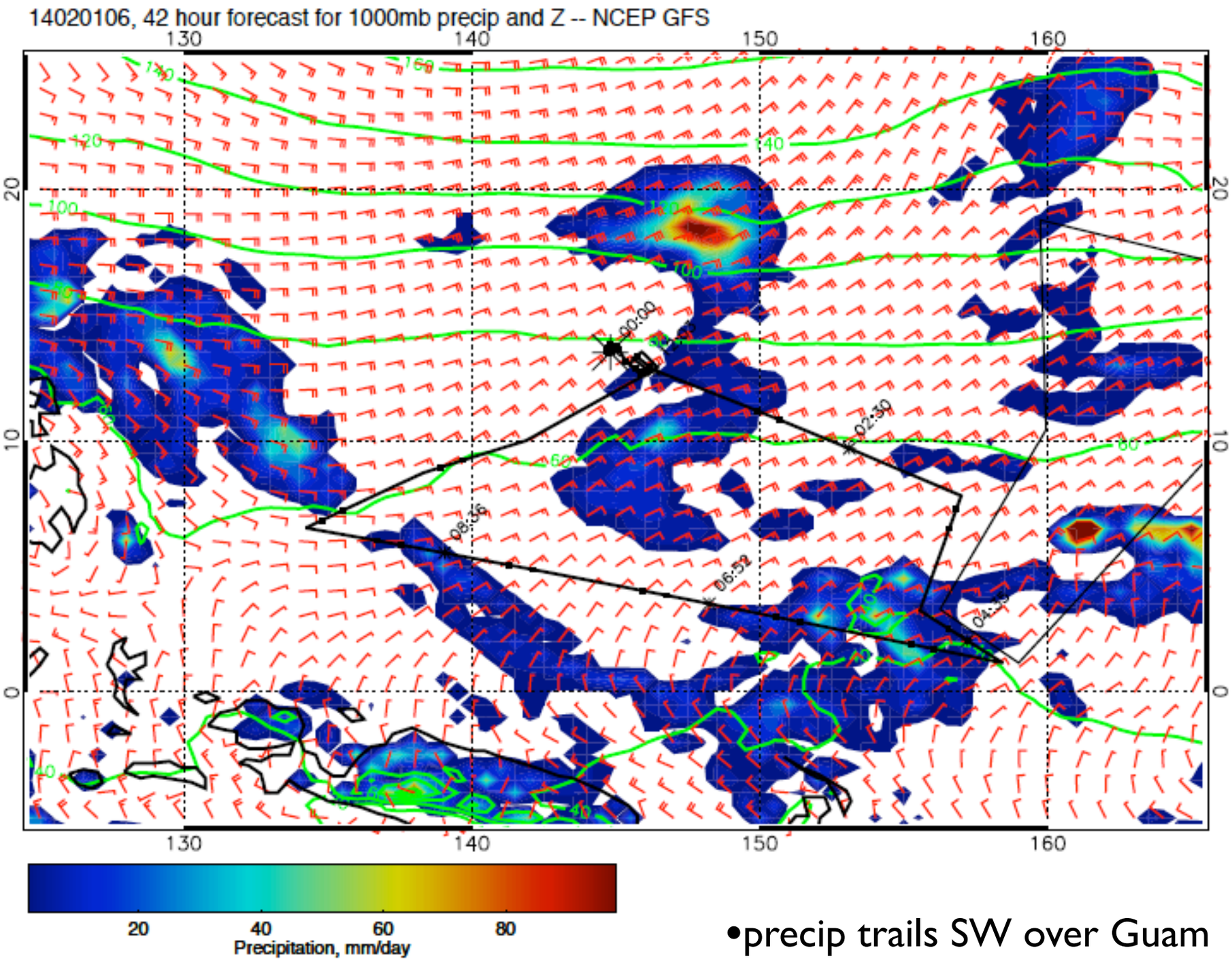
NE
15 knt

(NCAR)
NE
15 knt

- dry over Guam
- 45% cloud cover, cloud base ~1900 ft
- shear line with strong convection N of Guam

‘Sat landing –4 hrs’ condition (GFS):

1000mb precip & winds on 2014-02-01, 06UTC (02-01 Sat, 04PM)



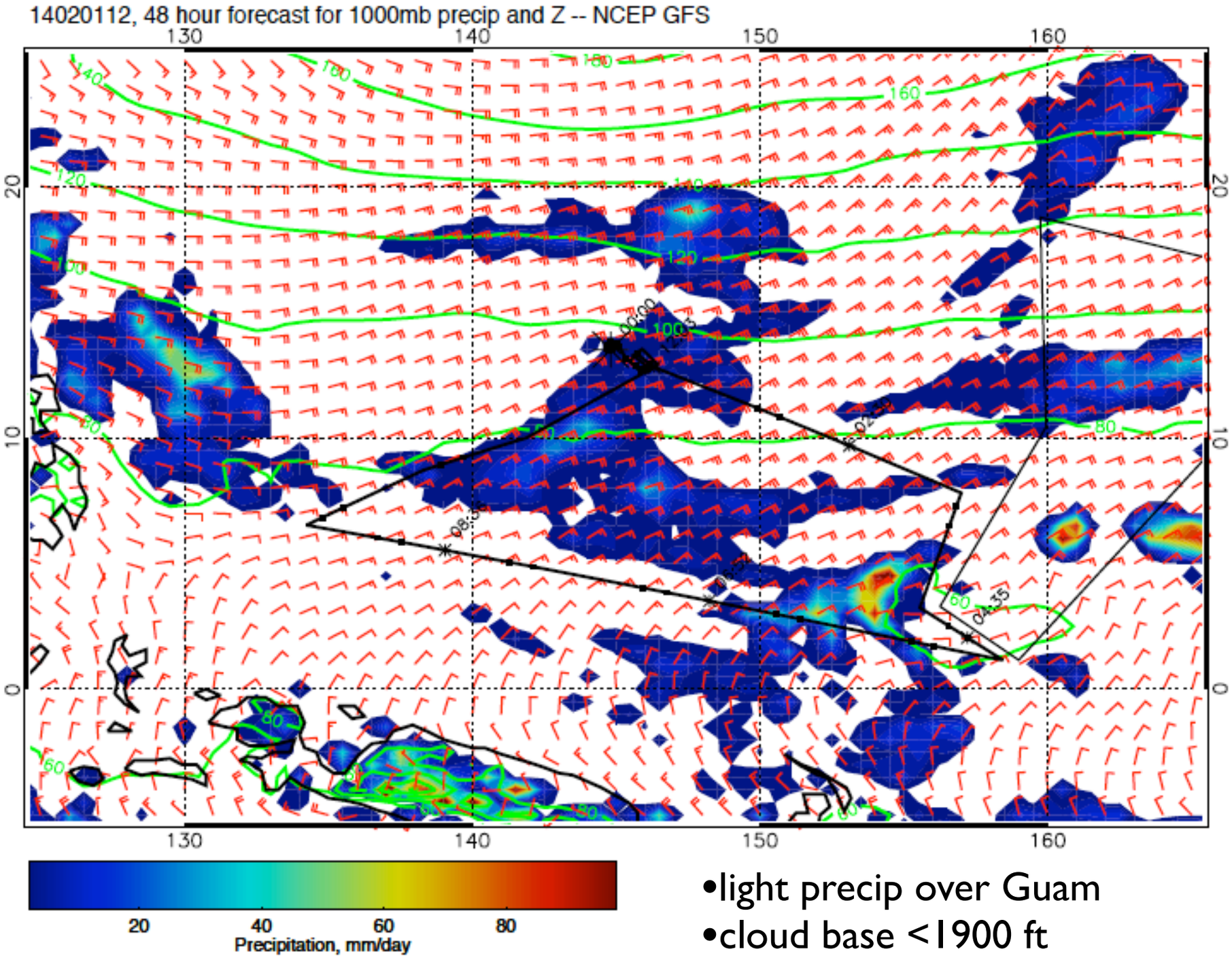
NE
20 knt

(NCAR)
NE
20 knt

- precip trails SW over Guam
- stronger winds

‘Sat landing –2 hrs’ condition (GFS):

1000mb precip & winds on 2014-02-01, 12UTC (02-01 Sat, 10PM)



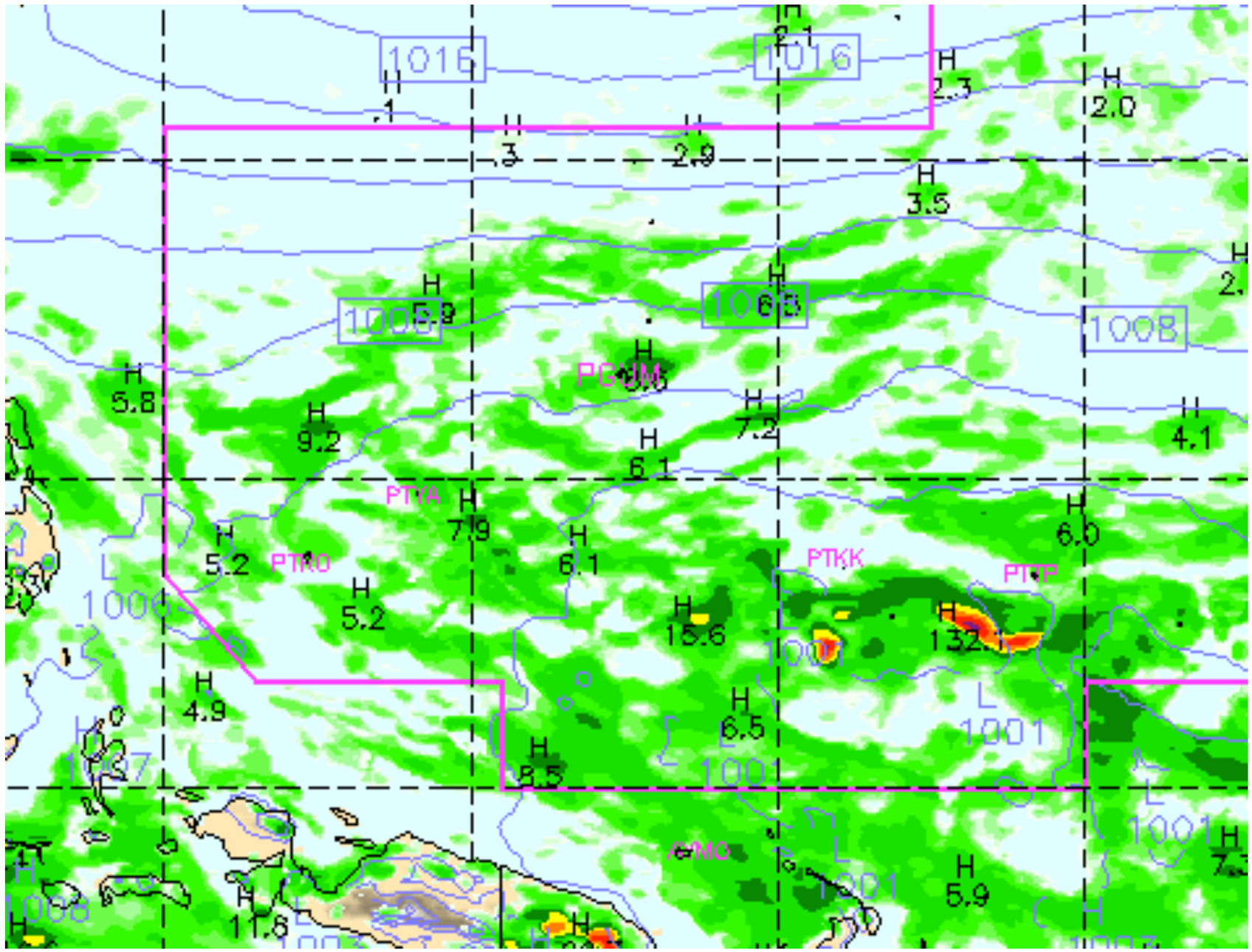
ENE
25 knt

(NCAR)
ENE
20 knt

- light precip over Guam
- cloud base <1900 ft
- winds continue to strengthen, become more Ely
- GFS: similar conditions until early Sun AM

Sun condition (NCAR):

1000mb precip & winds on 2014-02-01, 18UTC (02-02 Sun, 04AM)



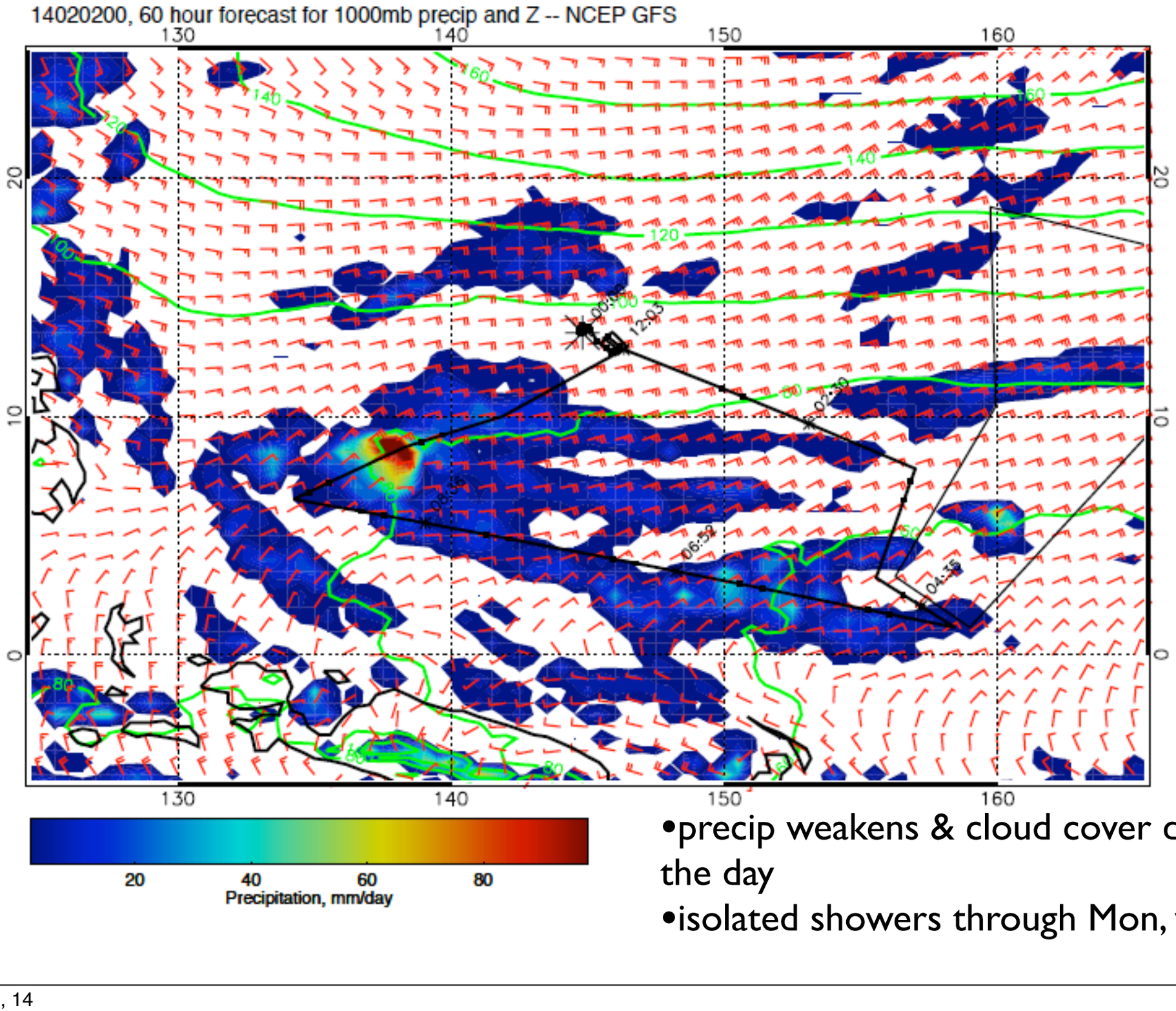
(GFS)
ENE
25 knt

ENE
20 knt

- NCAR model forecasts peak Sun rainfall at 4AM (lower precip thereafter)

Sun condition (GFS):

1000mb precip & winds on 2014-02-02, 00UTC (02-02 Sun, 10AM)



ENE
25 knt

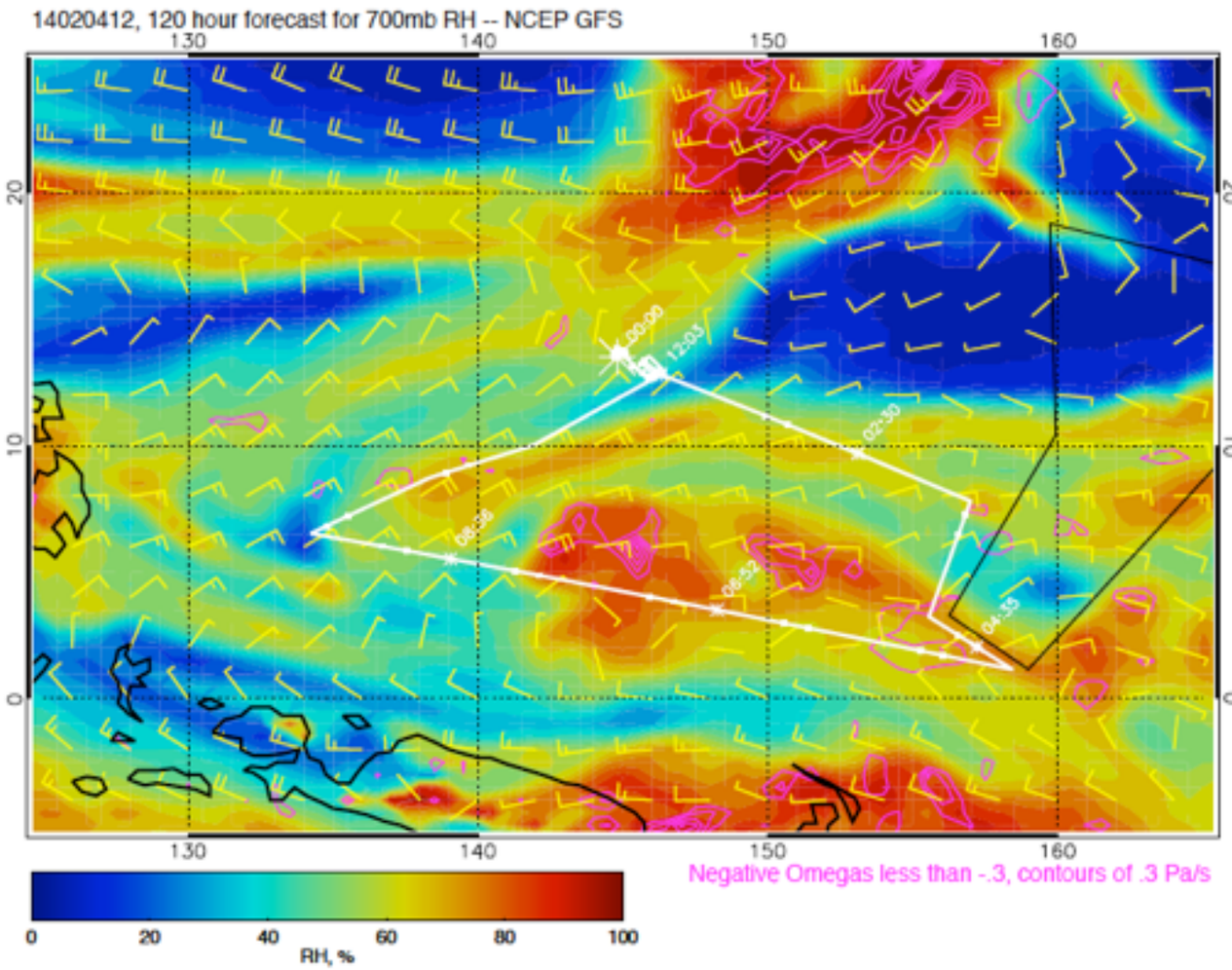
(NCAR)
ENE
20 knt

- precip weakens & cloud cover decreases during the day
- isolated showers through Mon, weaker E winds

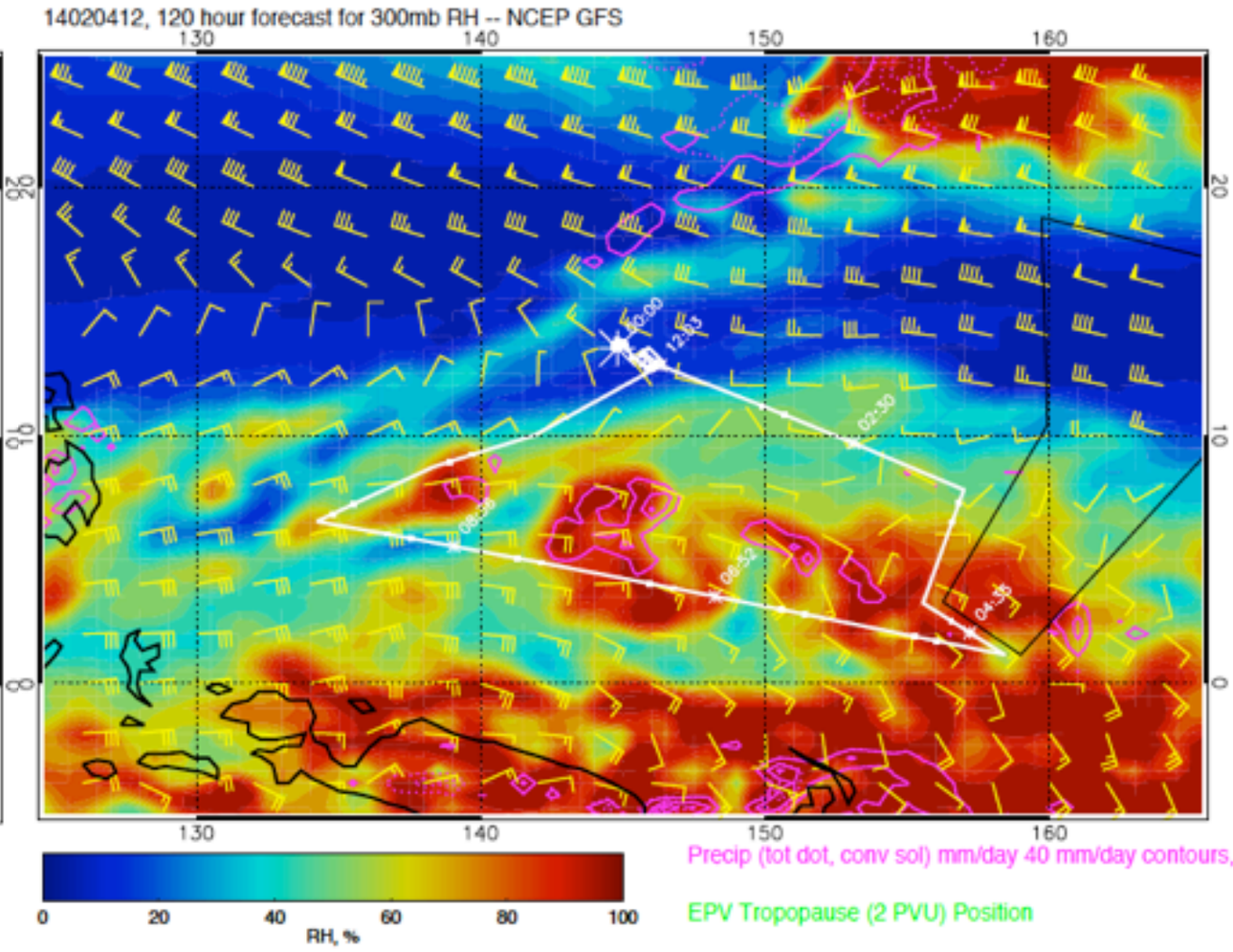
Tue condition (GFS):

700mb & 300mb RH on 2014-02-04, 12UTC (02-04 Tue, 10PM)

700mb



300mb



- lower-level moisture over Guam
- front approaching from NW