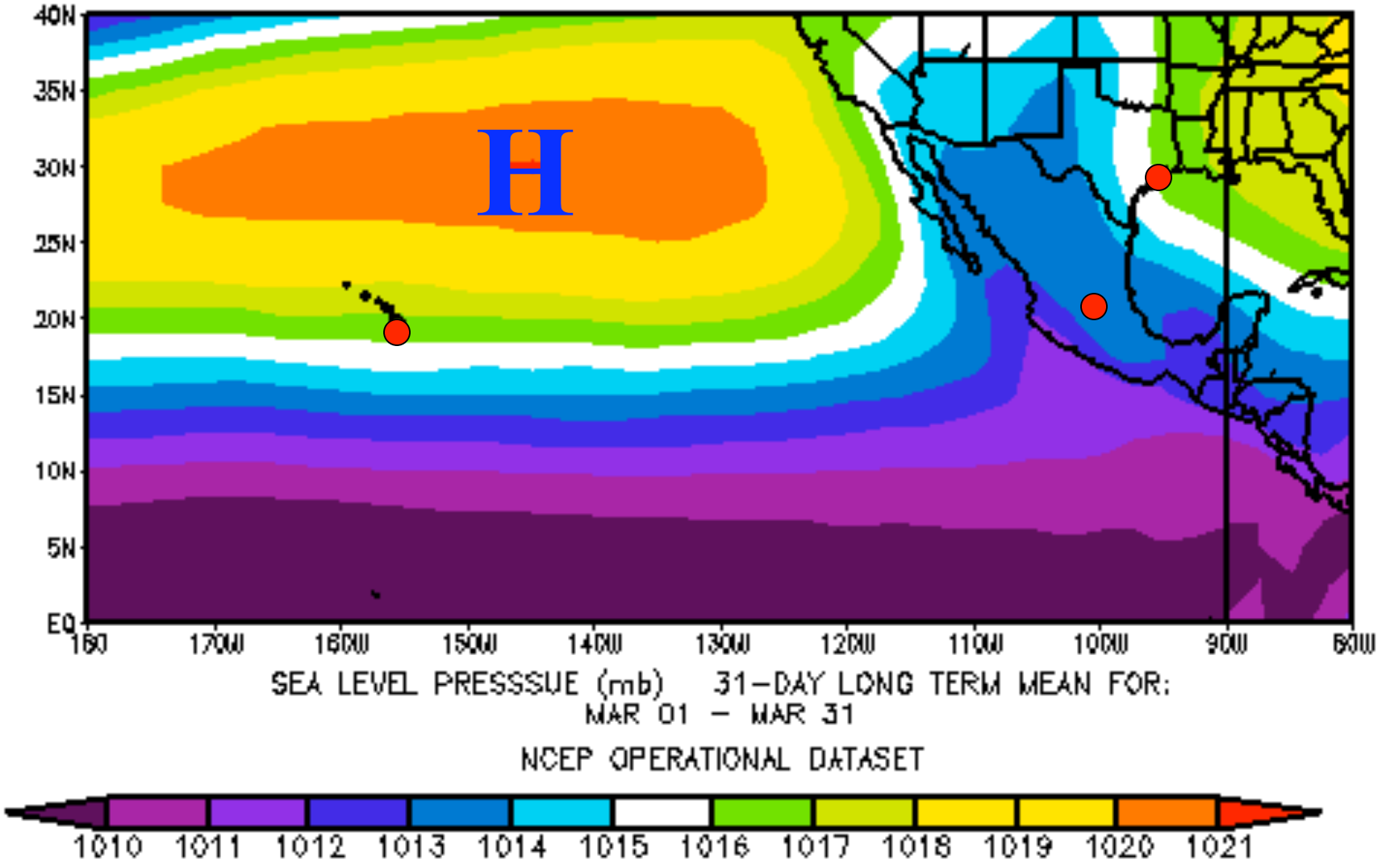
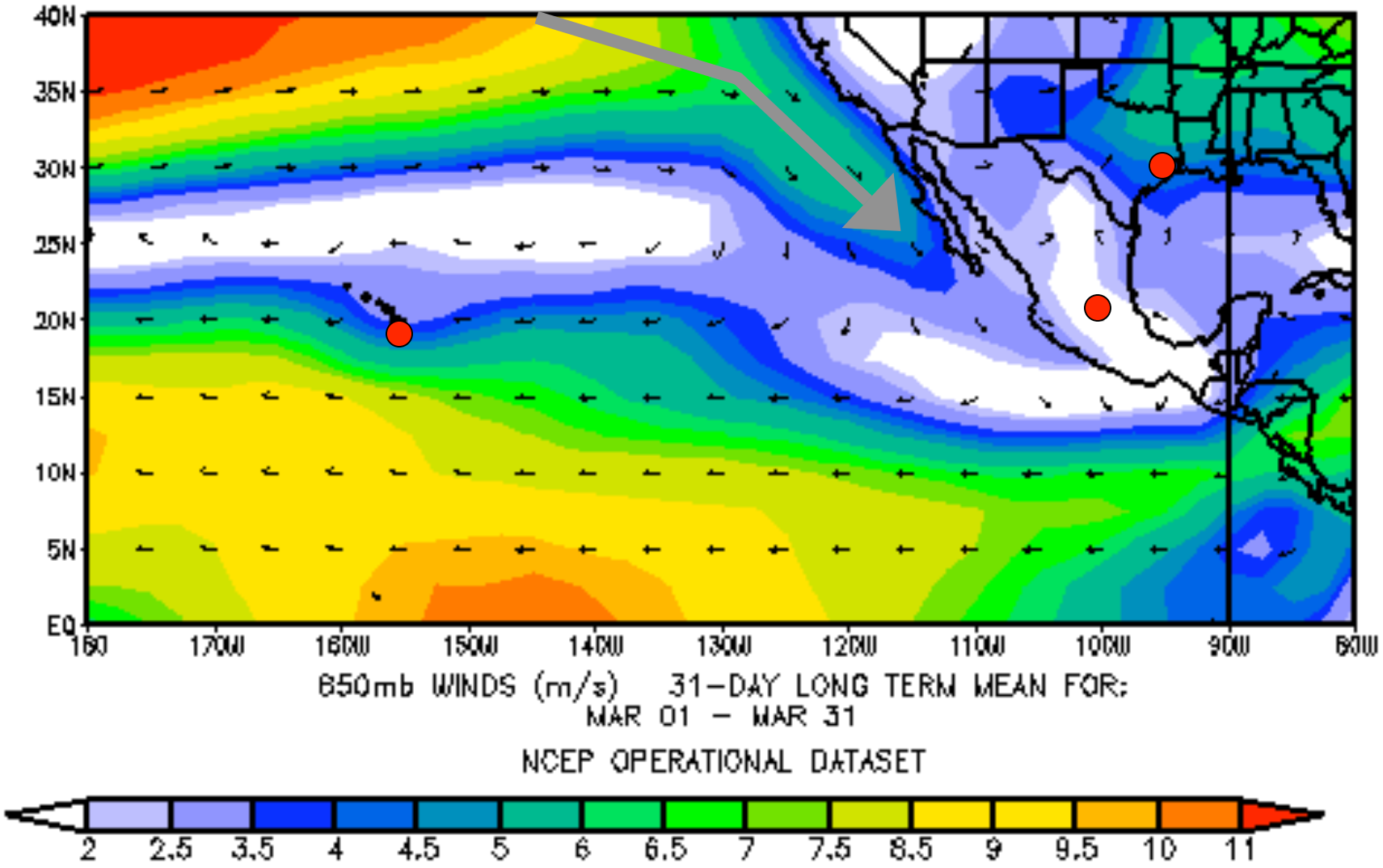
INTEX-B Meteorological Overview

Henry Fuelberg
Florida State University

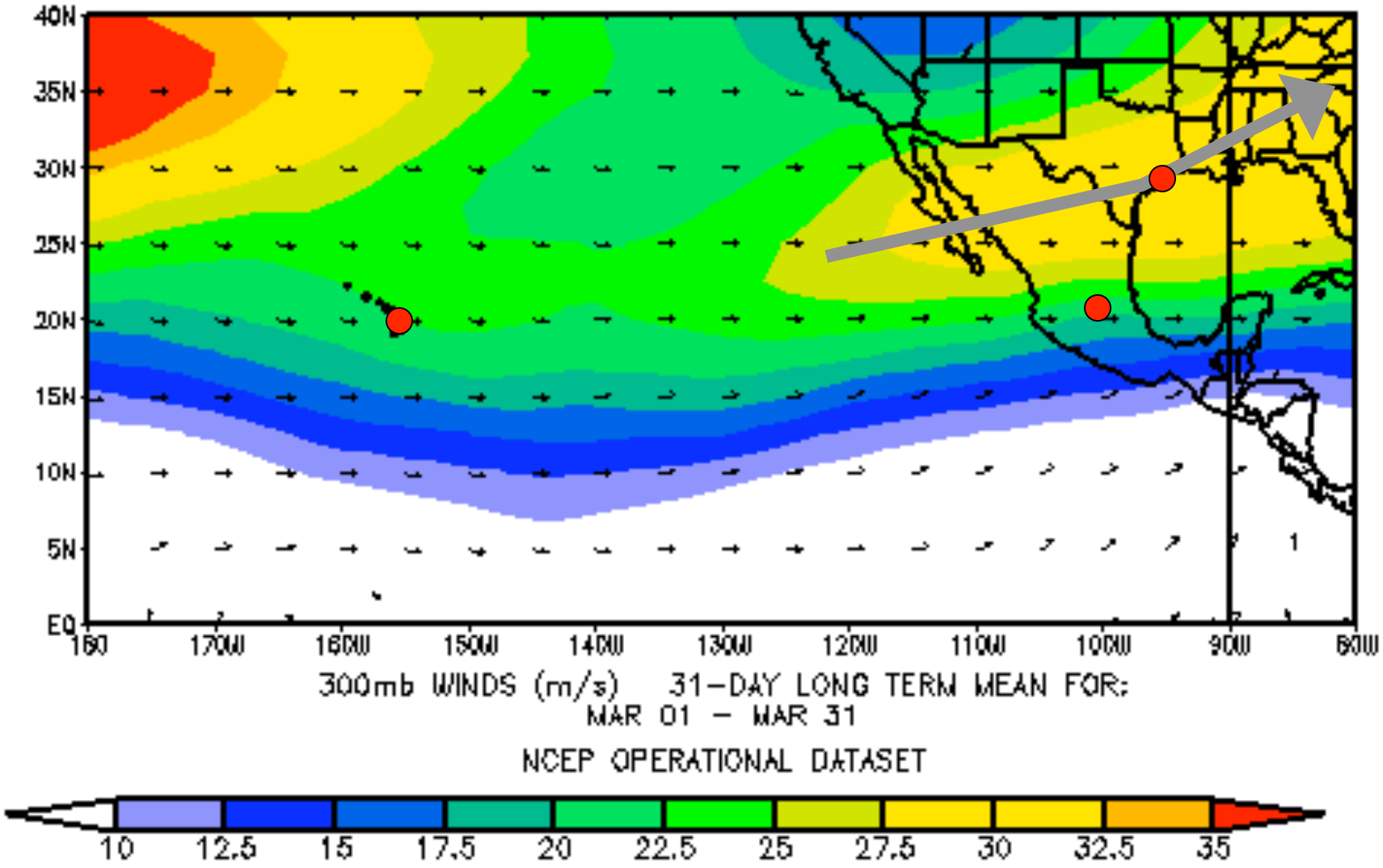
Sea Level Pressure - March



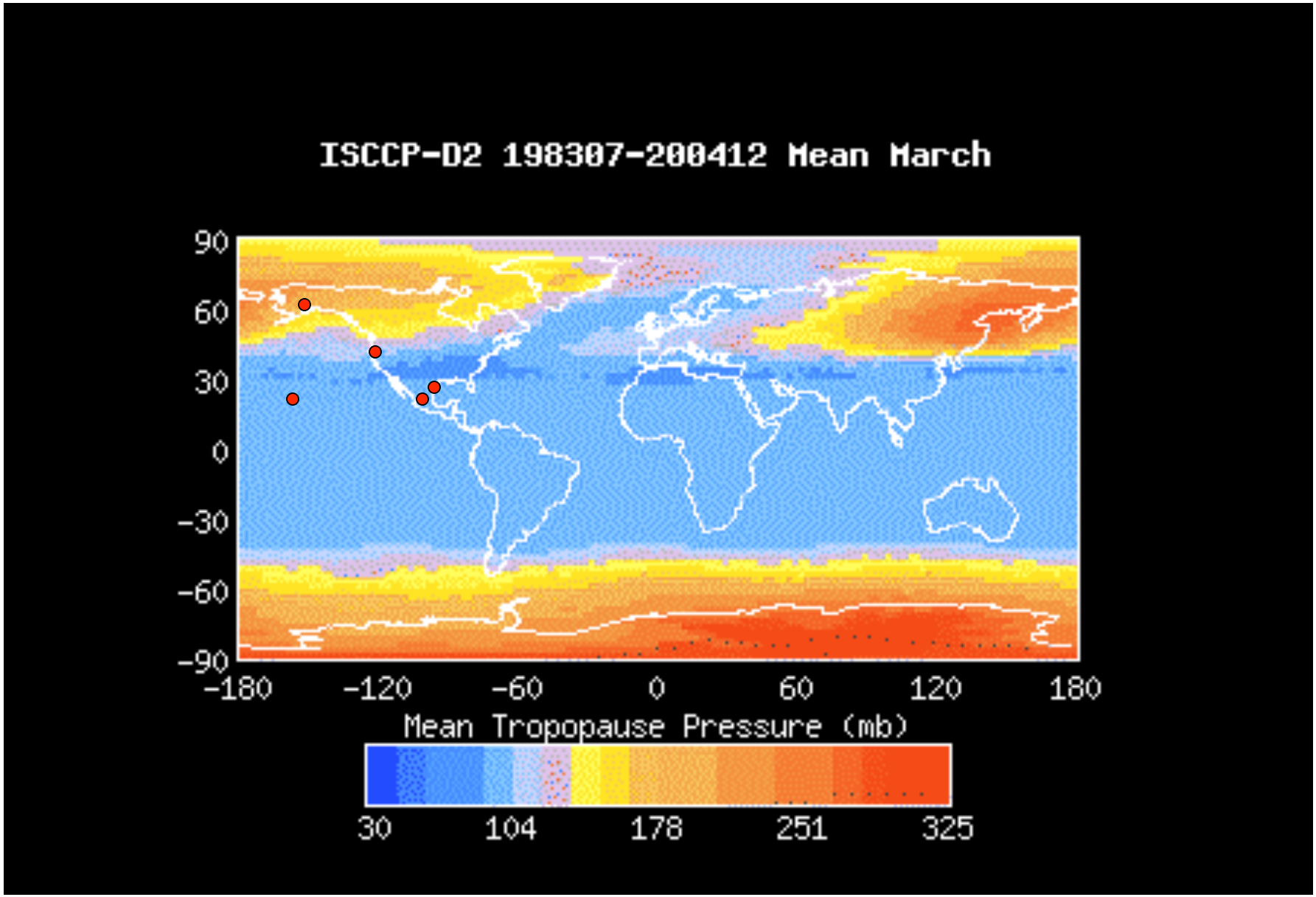
850 mb Winds - March

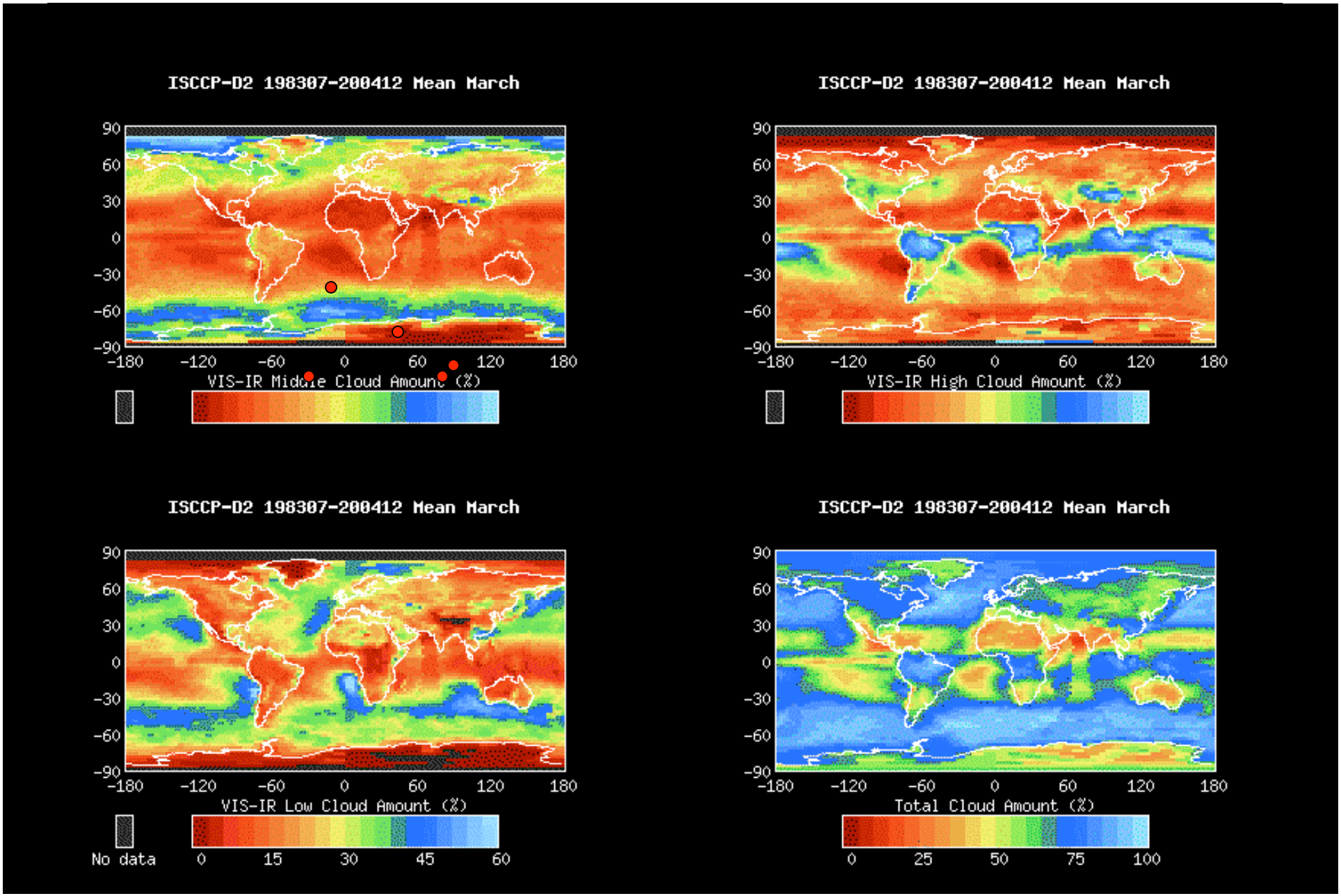


300 mb Winds - March



March Mean Tropopause (mb)




ISCCP-D2 198307-200412 Mean March
VIS-IR Middle Cloud Amount (%)
ISCCP-D2 198307-200412 Mean March
VIS-IR High Cloud Amount (%)
ISCCP-D2 198307-200412 Mean March
VIS-IR Low Cloud Amount (%)
No data
0
15
30
45
60
ISCCP-D2 198307-200412 Mean March
Total Cloud Amount (%)
0
25
50
75
100
90
60
30
0
-30
-60
-90
-180
-120
-60
0
60
120
180

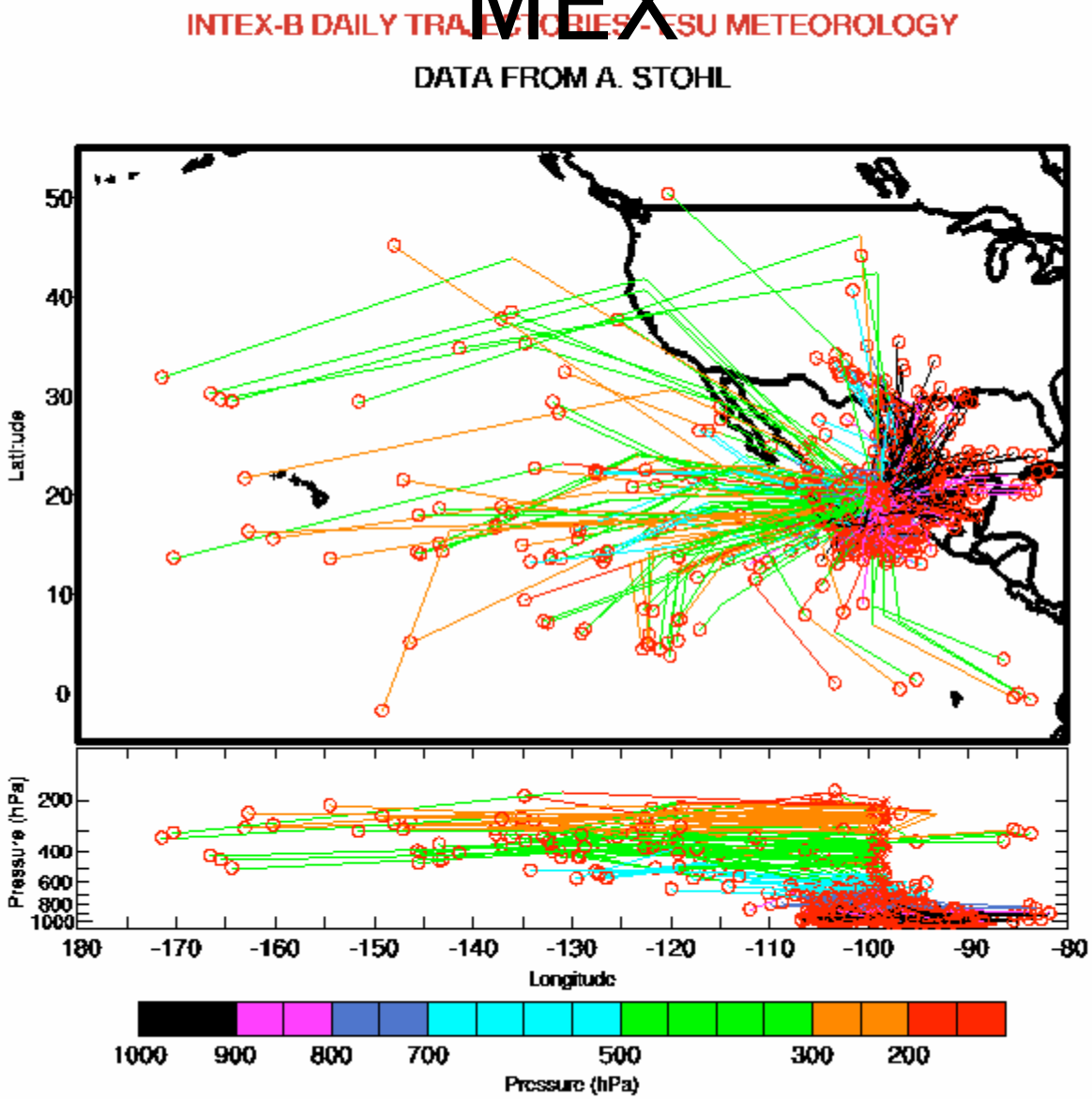
March Weather in Houston

- Avg Max Temp 72°F
- Avg Min Temp 55°F
- Avg Rainfall 3.36 in.

March Weather in Mexico City

- Avg Max Temp 77°F
- Avg Min Temp 49°F
- Avg Rainfall 0.50 in.

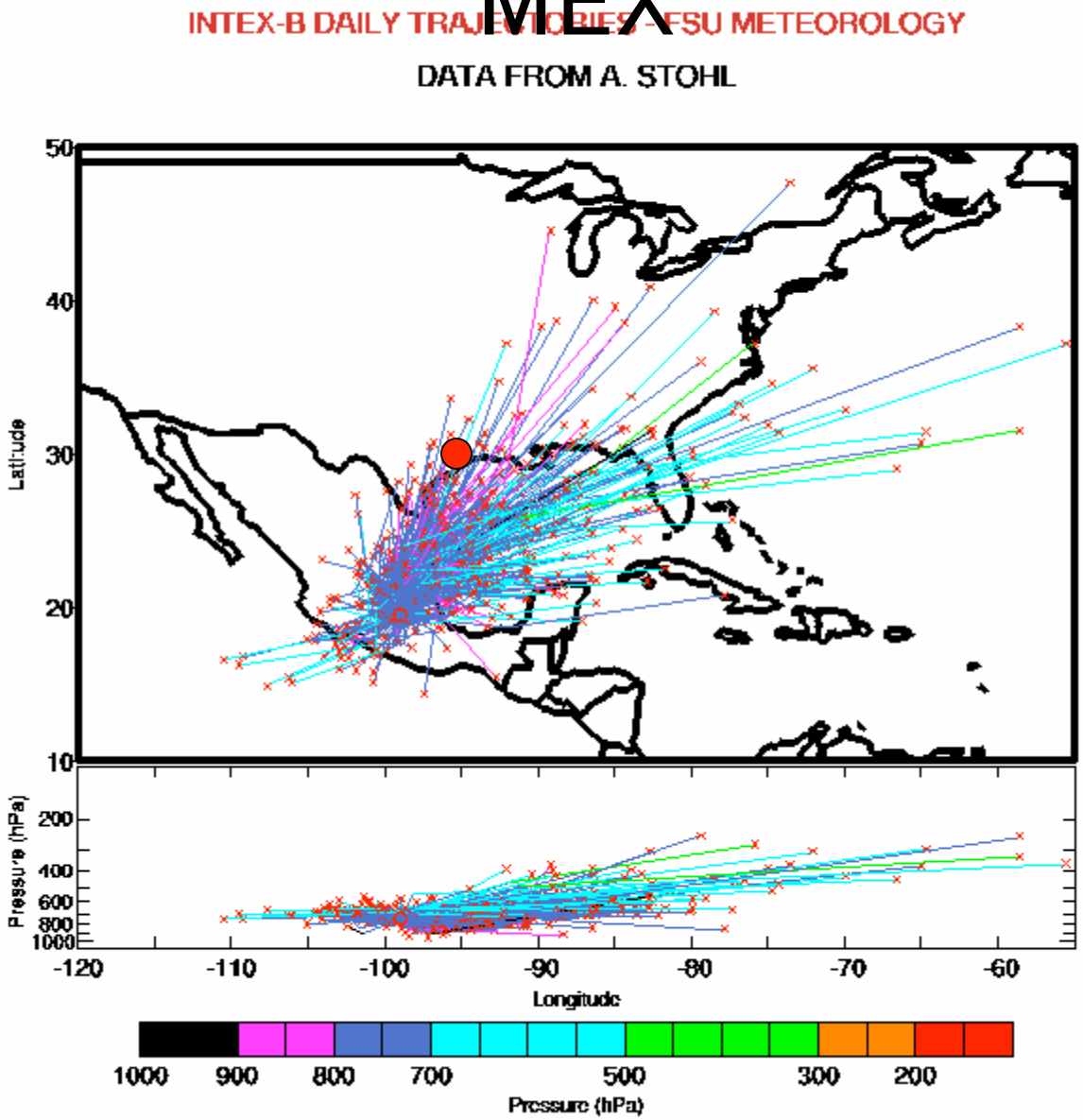
3-day Back Trajectories—MEX



March data for 15 years

Trajectories arrive at 500 m AGL

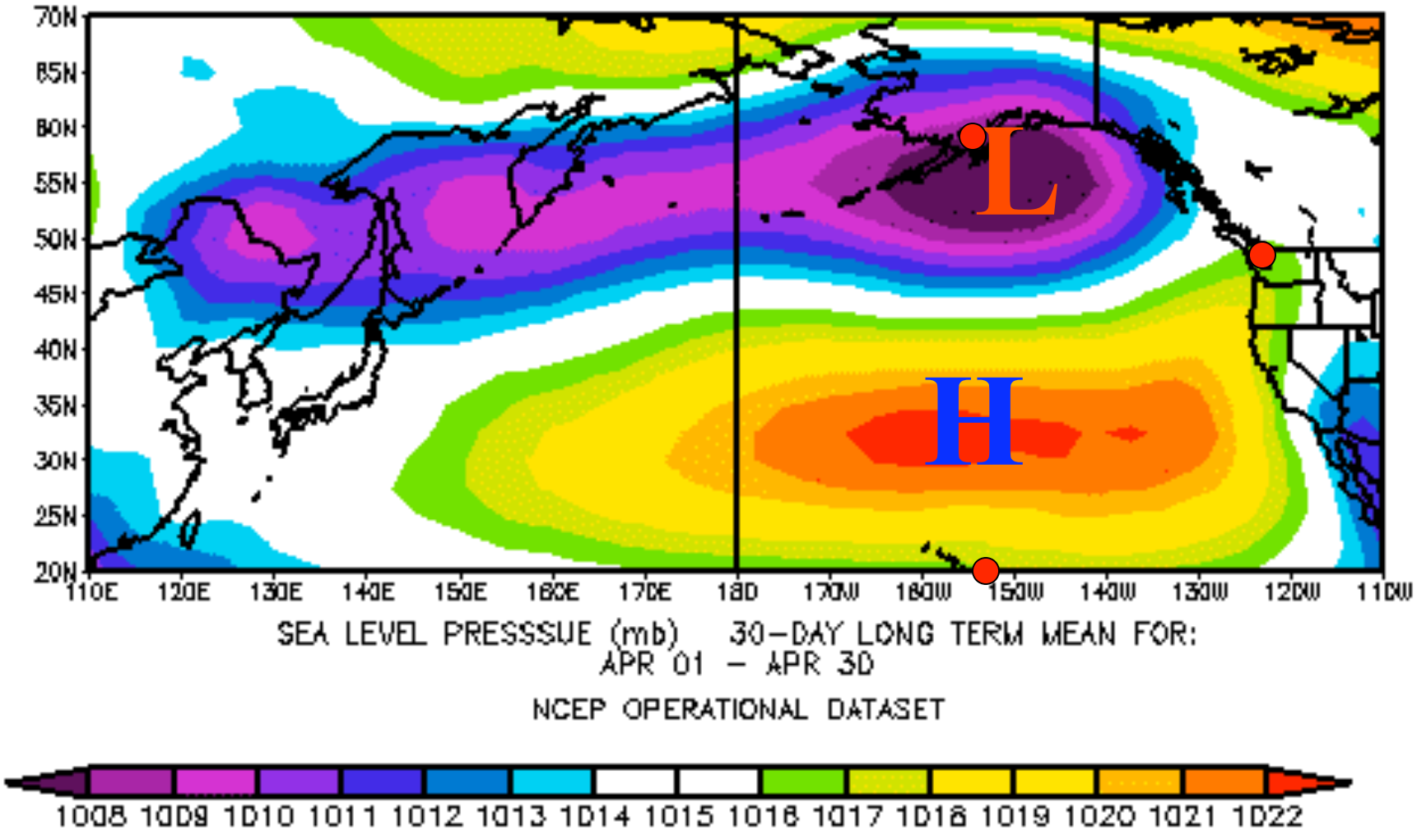
3-day Forward Trajectories—MEX



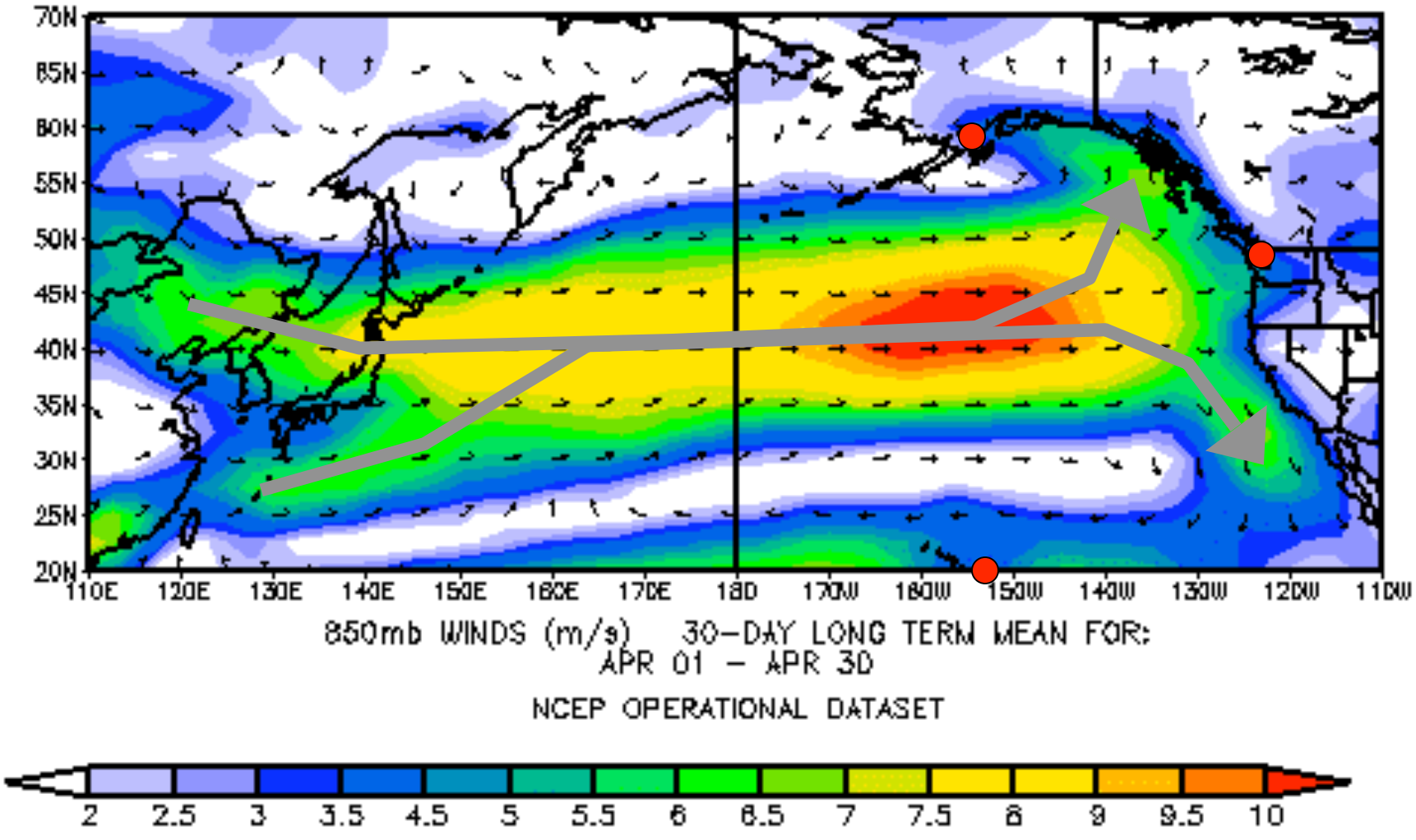
March Data for 15 years

Trajectories begin at 500 m AGL

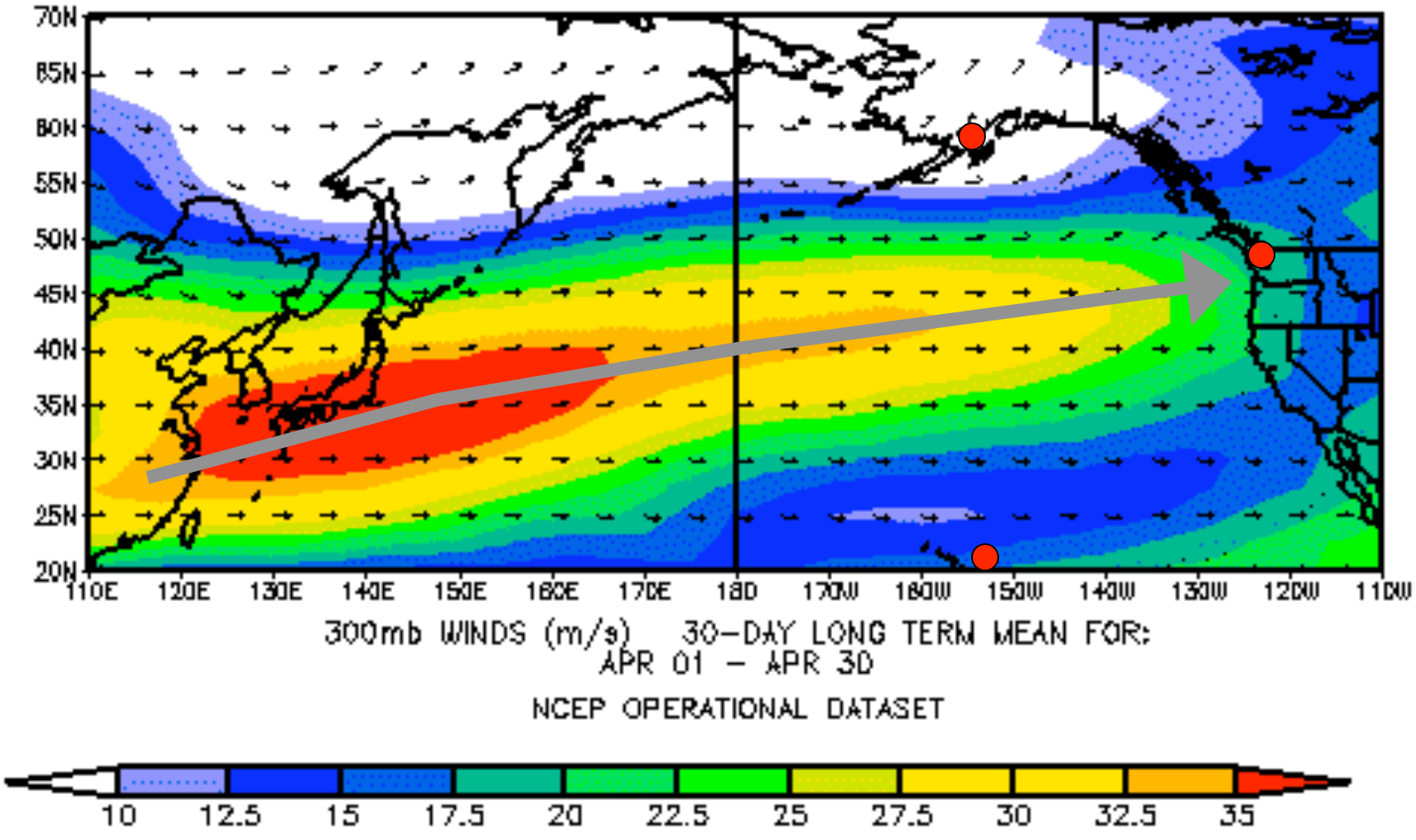
Sea Level Pressure - April



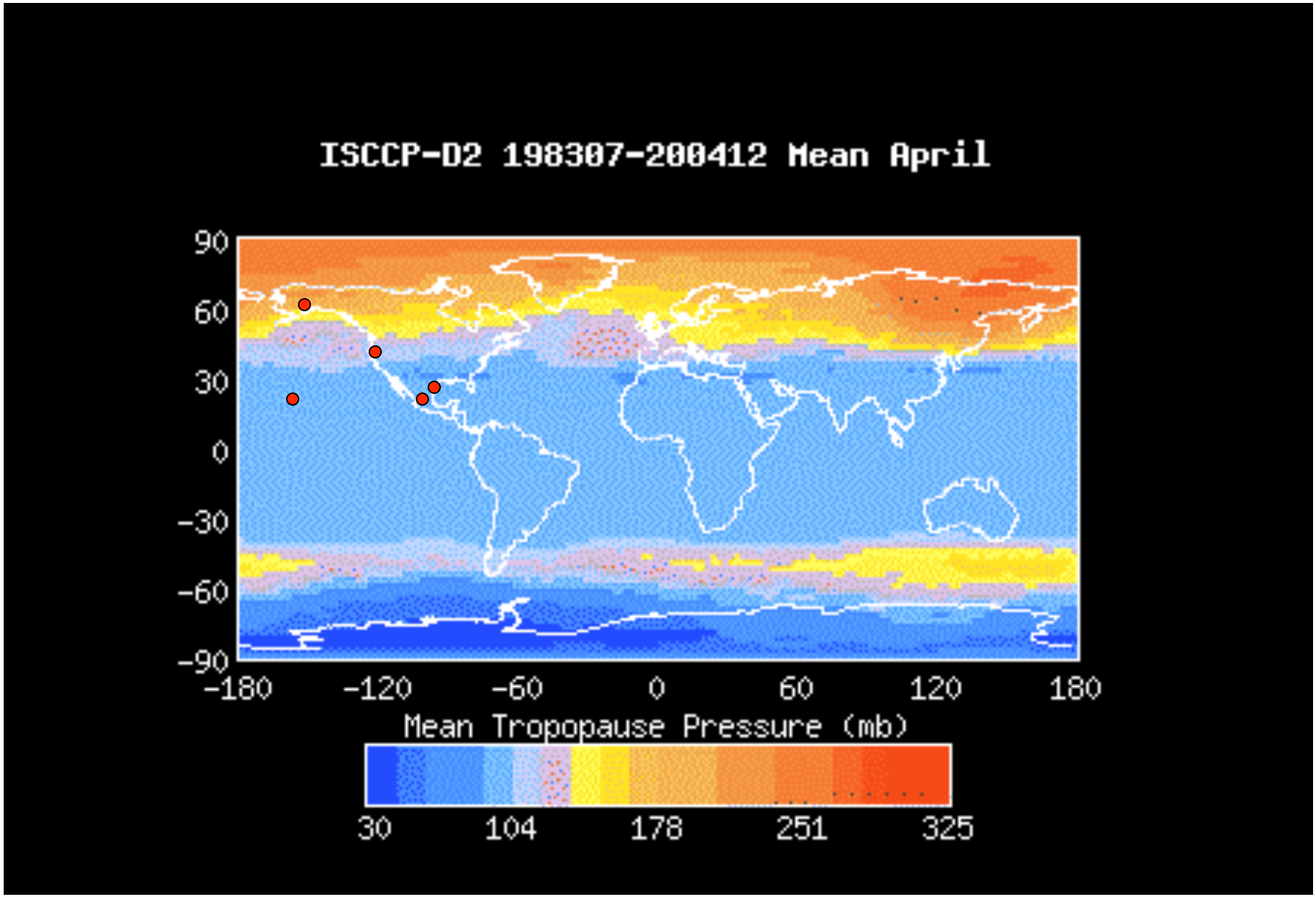
850 mb Winds - April

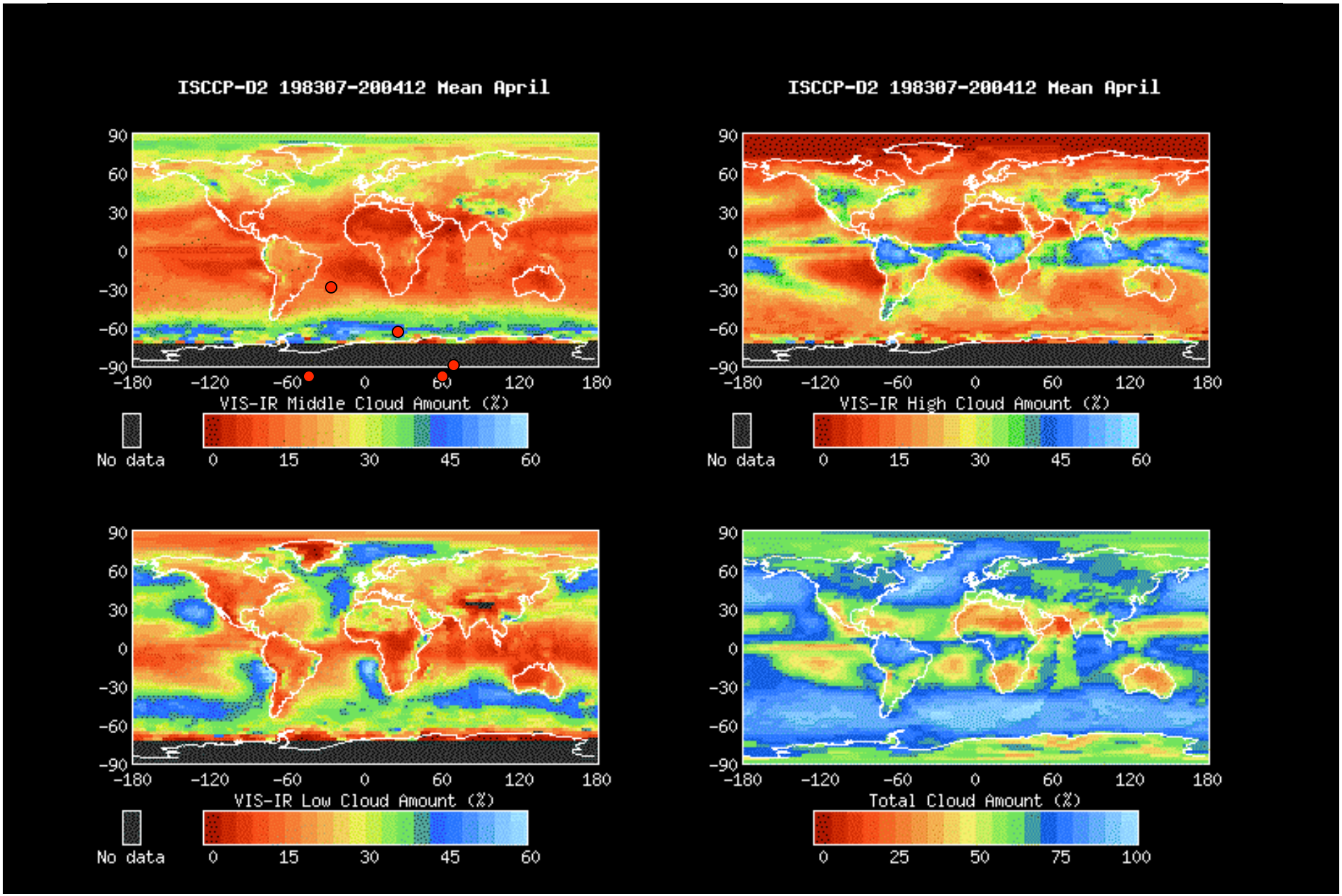


300 mb Winds - April



April Mean Tropopause (mb)




ISCCP-D2 198307-200412 Mean April
VIS-IR Middle Cloud Amount (%)
No data
0 15 30 45 60
ISCCP-D2 198307-200412 Mean April
VIS-IR High Cloud Amount (%)
No data
0 15 30 45 60
VIS-IR Low Cloud Amount (%)
No data
0 15 30 45 60
Total Cloud Amount (%)
0 25 50 75 100
90 60 30 0 -30 -60 -90
-180 -120 -60 0 60 120 180

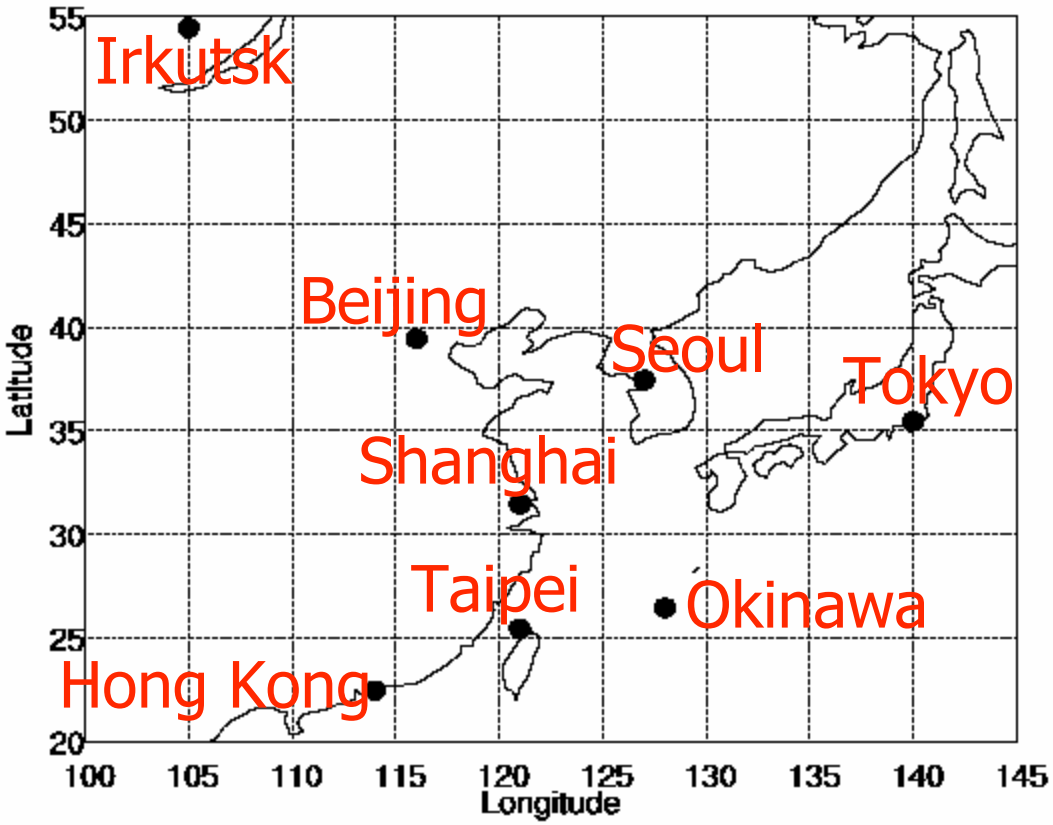
April Weather in Hilo

- Avg. Max 79.8°F
- Avg. Min 65.5°F
- Avg. Sky Cover 80%
- Avg. Clear Days 1
- Avg. Partly Cloudy Days 9
- Avg. Cloudy Days 20
- Avg. Precipitation 15.26 in.

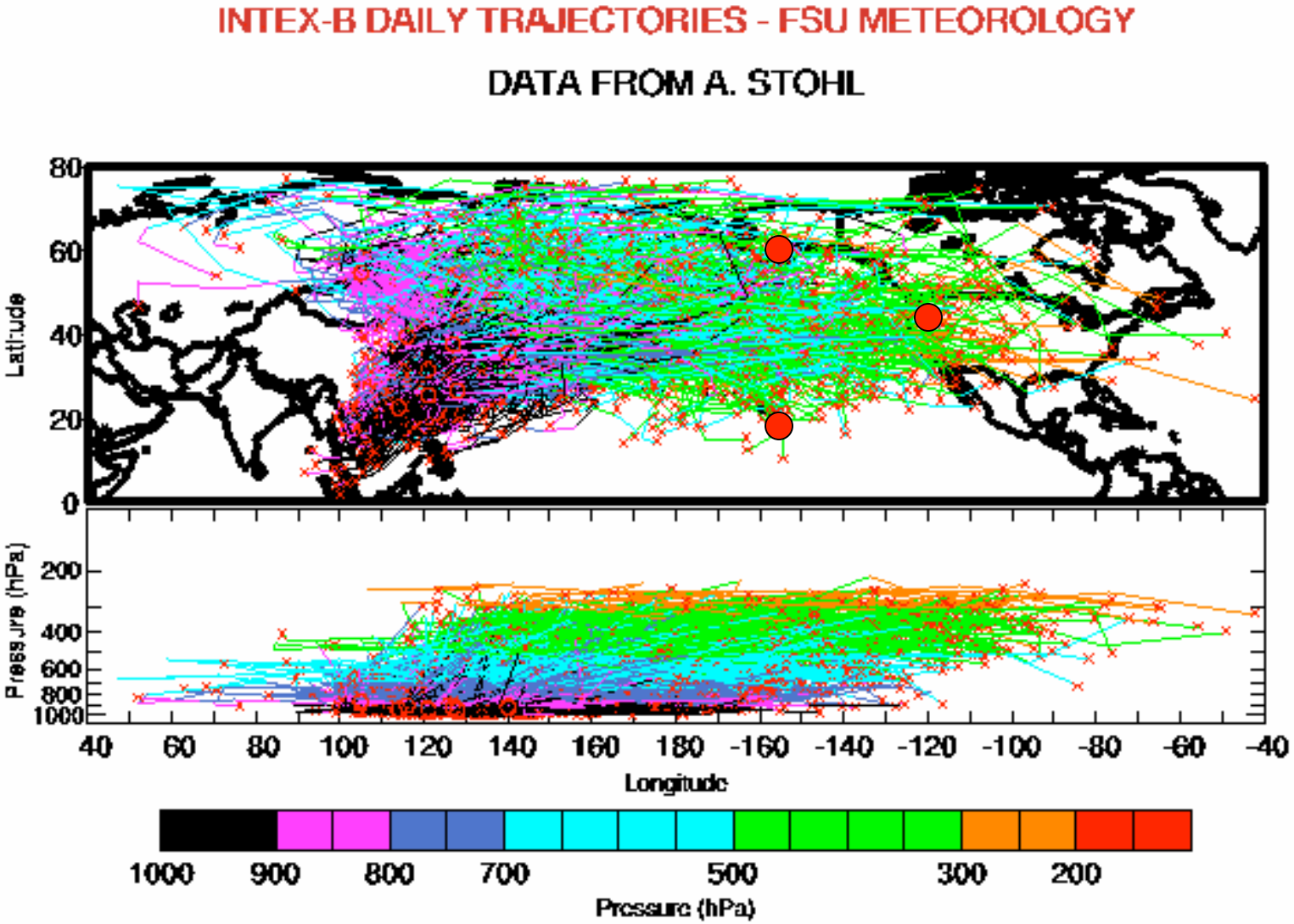
April Weather in Seattle

- Avg. Max 57.2°F
- Avg. Min 41.2°F
- Avg. Sky Cover 80%
- Avg. Clear Days 3
- Avg. Partly Cloudy Days 7
- Avg. Cloudy Days 20
- Avg. Precipitation 2.33 in.

Asian Cities



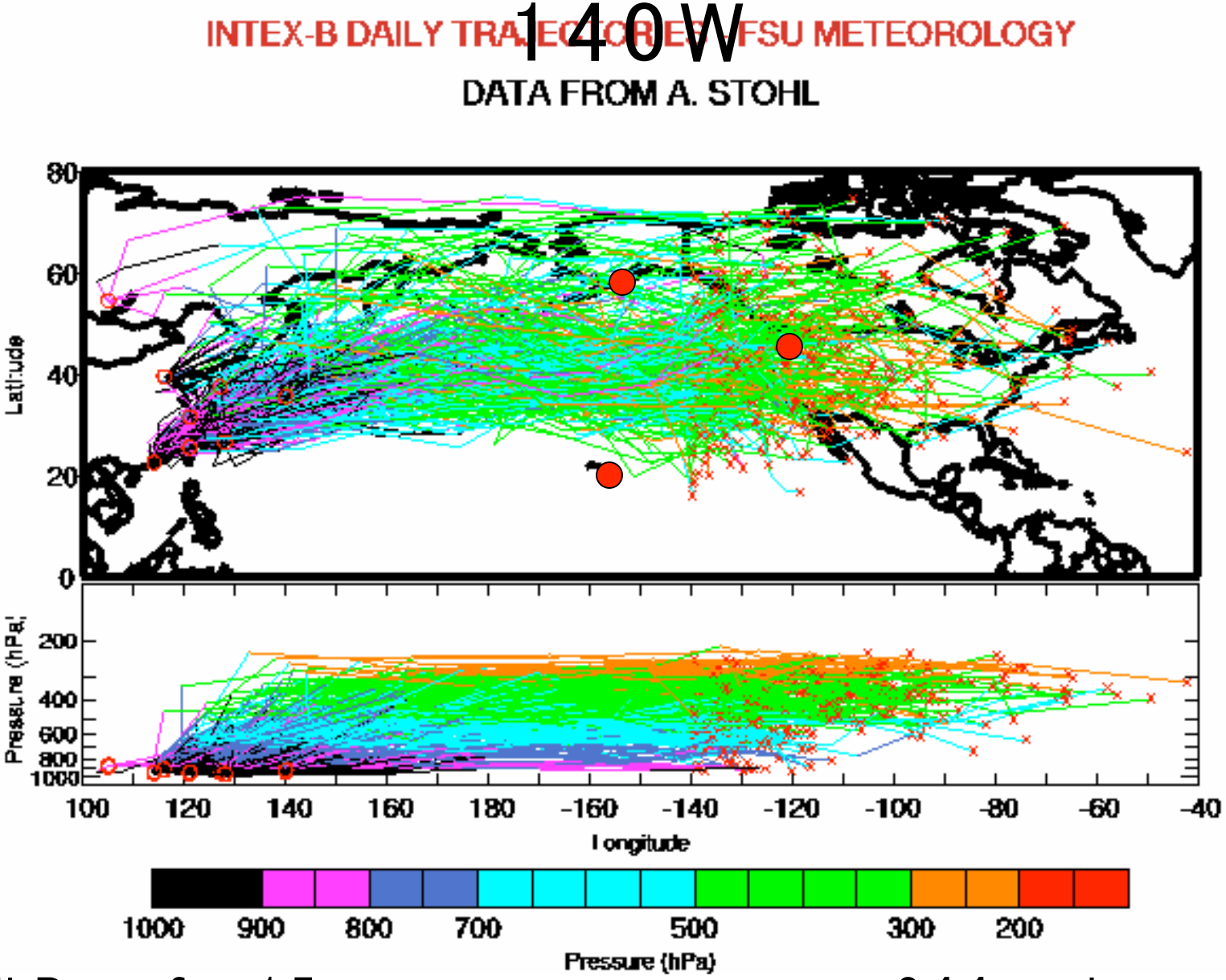
6-day Forward Trajectories—Asia



April Data for 15 years

3600 trajectorie

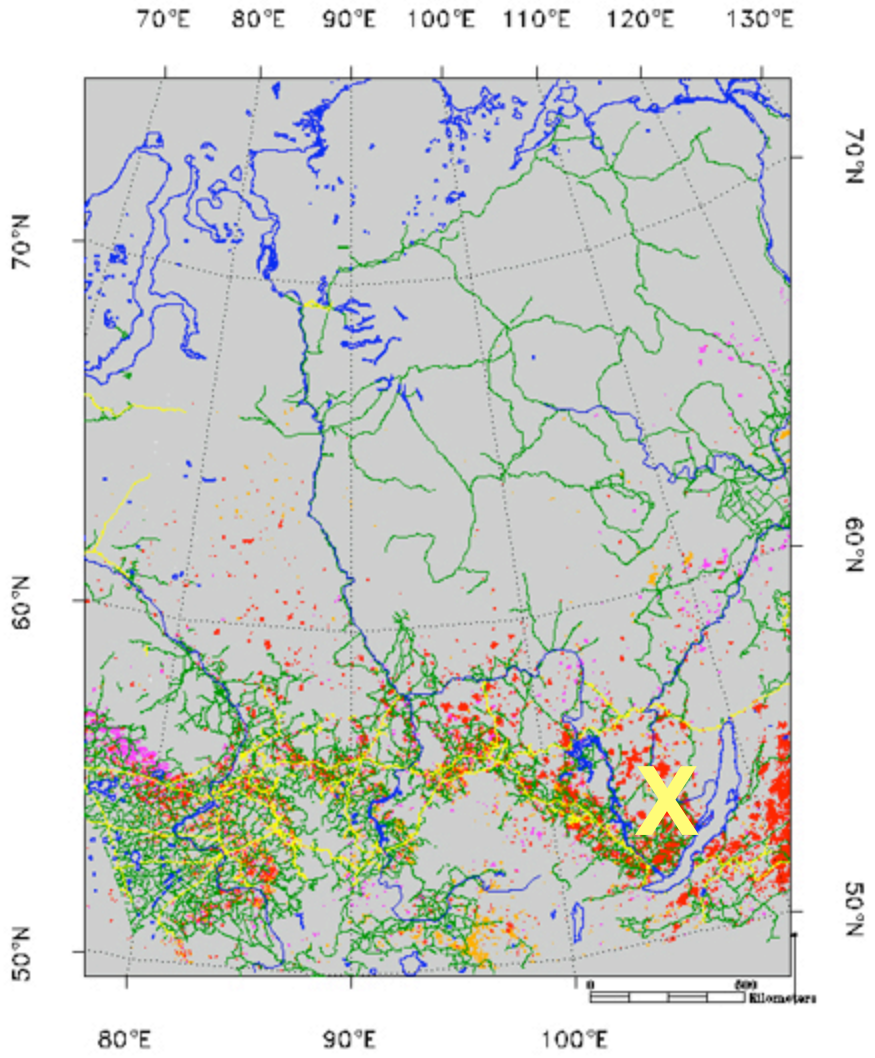
6-day Forward-Asia-Ending Past 140W



April Data for 15 years

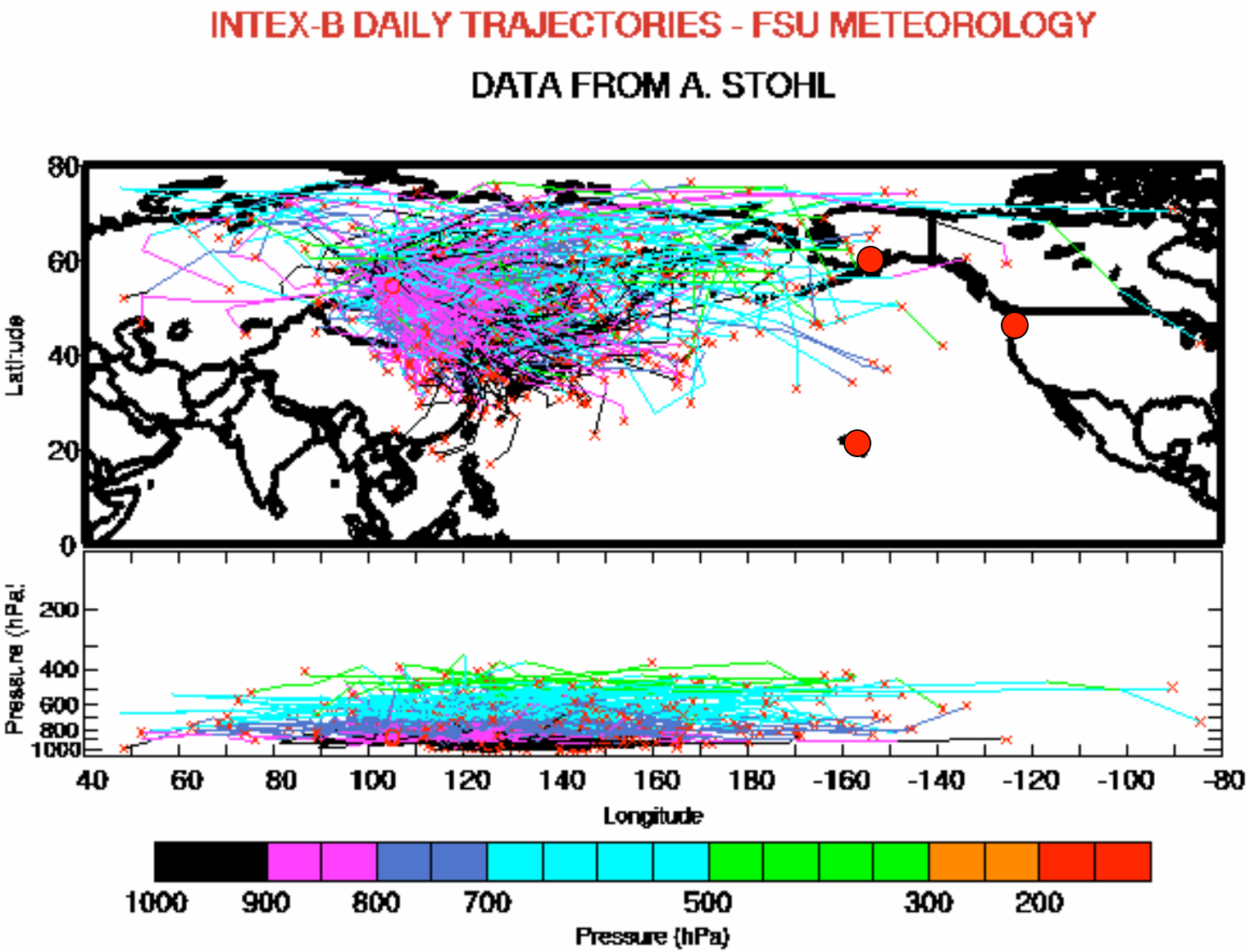
344 trajectories ~ 1

Siberian Fires, 2001–2003, MODIS



http://www.nasa.gov/vision/earth/lookingatearth/siberian_fires.htm

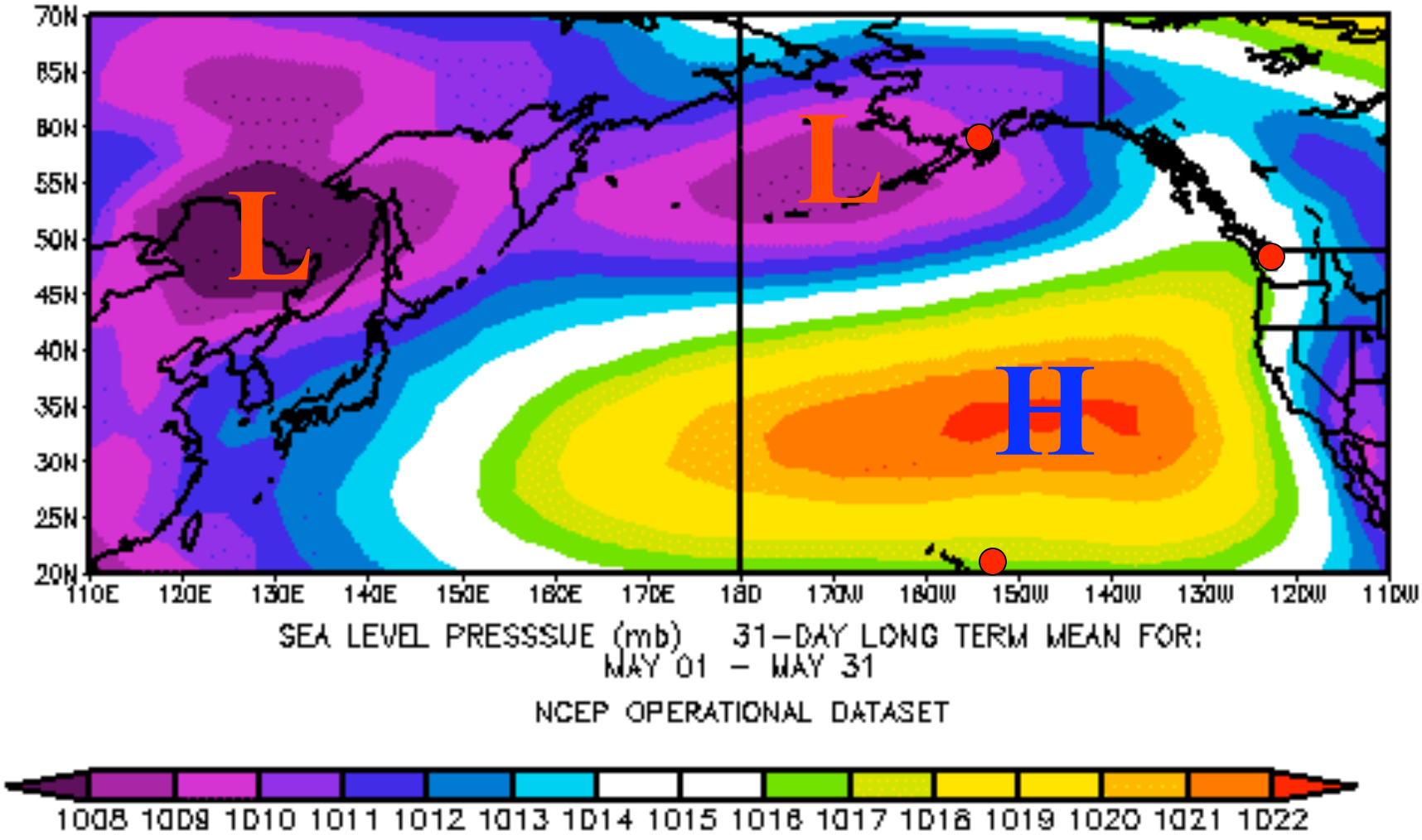
6-day Forward—Siberia



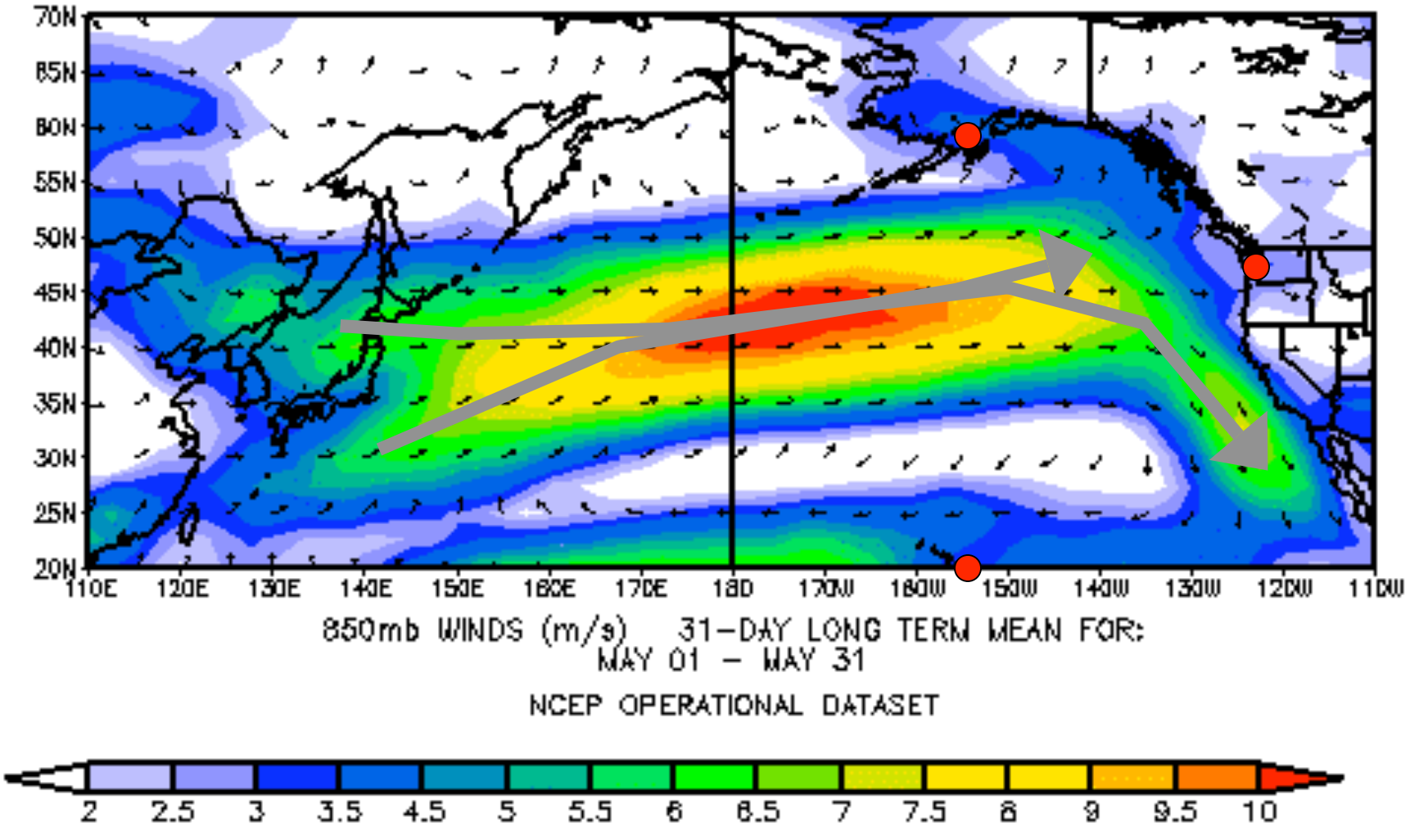
April Data for 15 years

450 trajectories

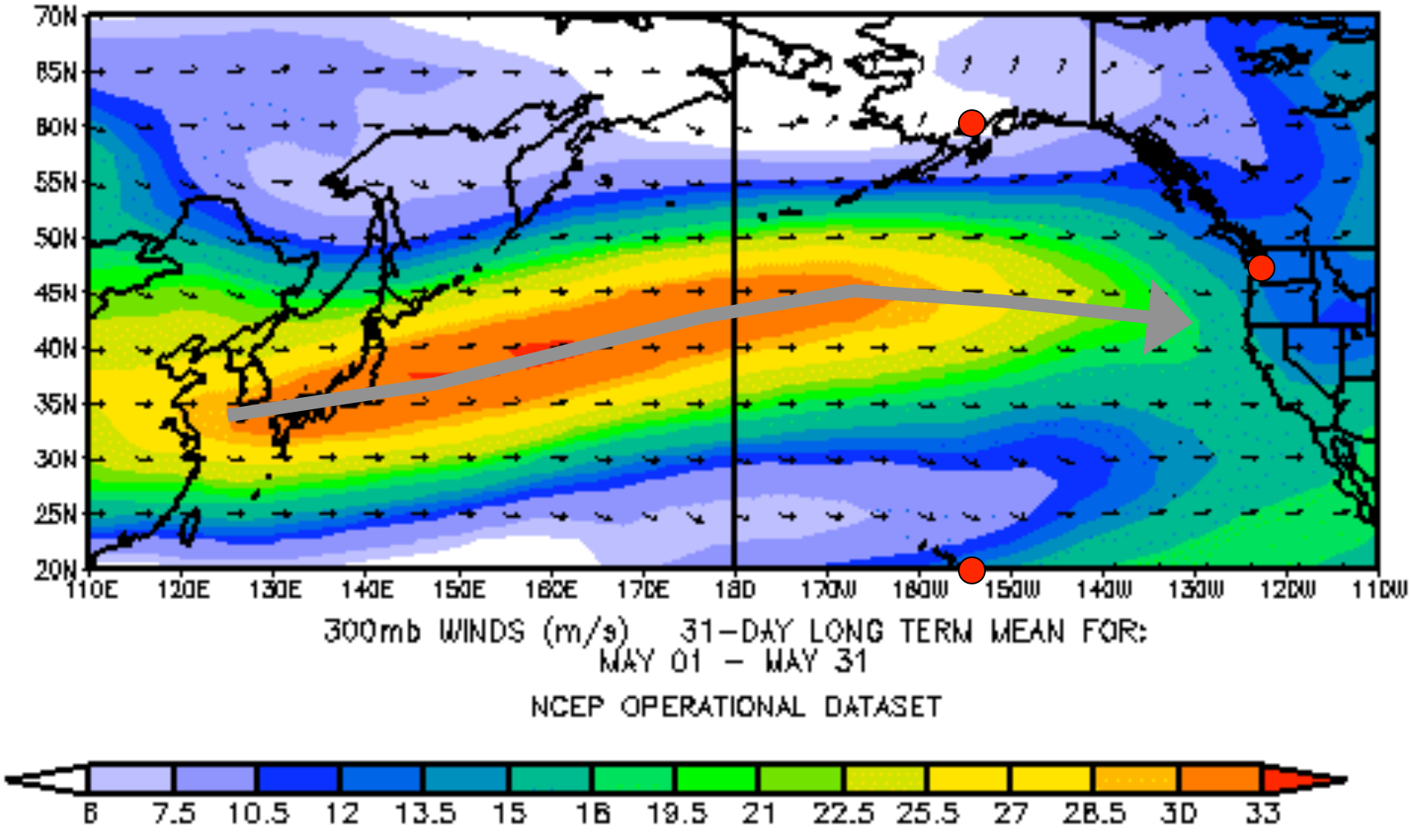
Sea Level Pressure - May



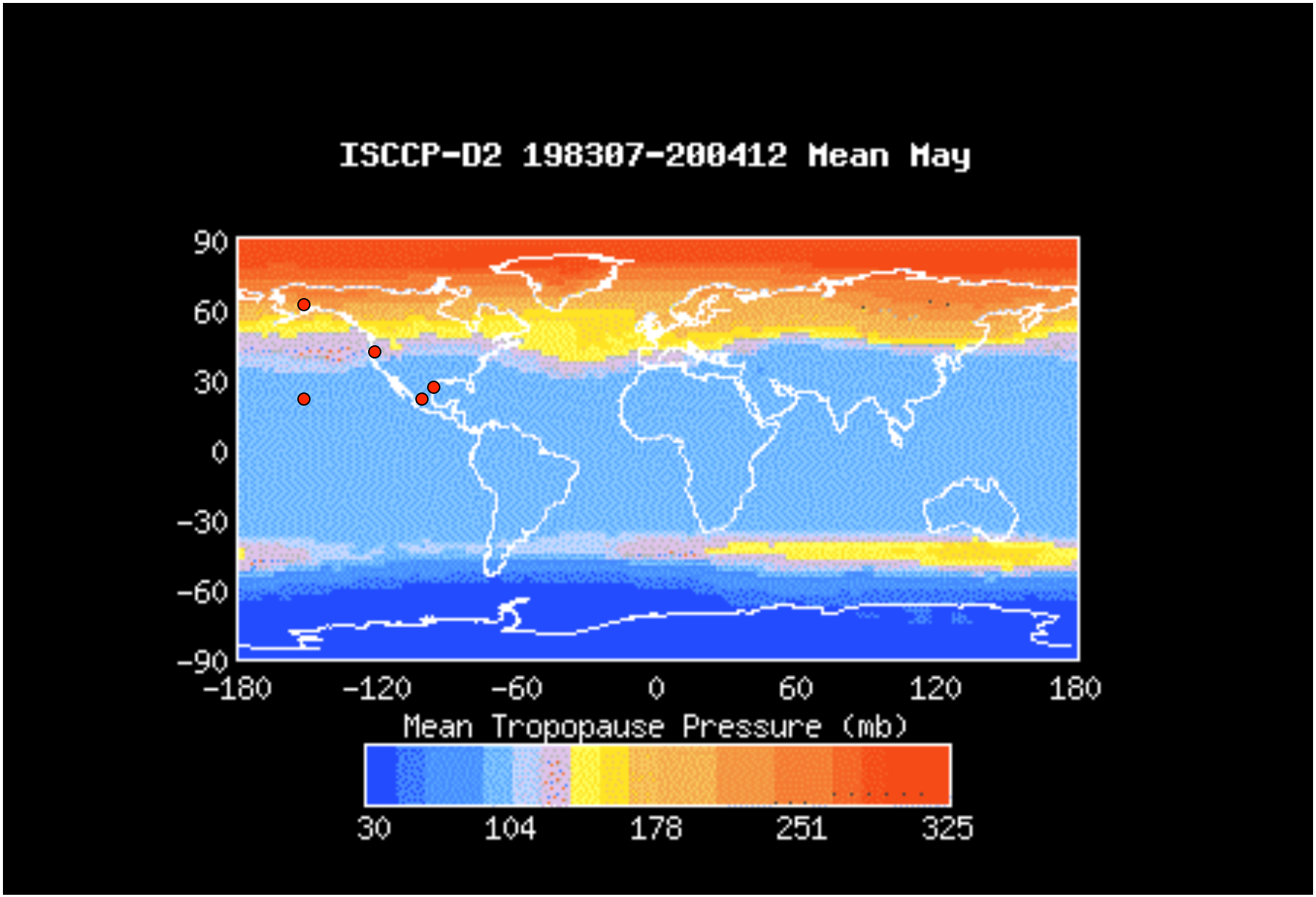
850 mb Winds - May



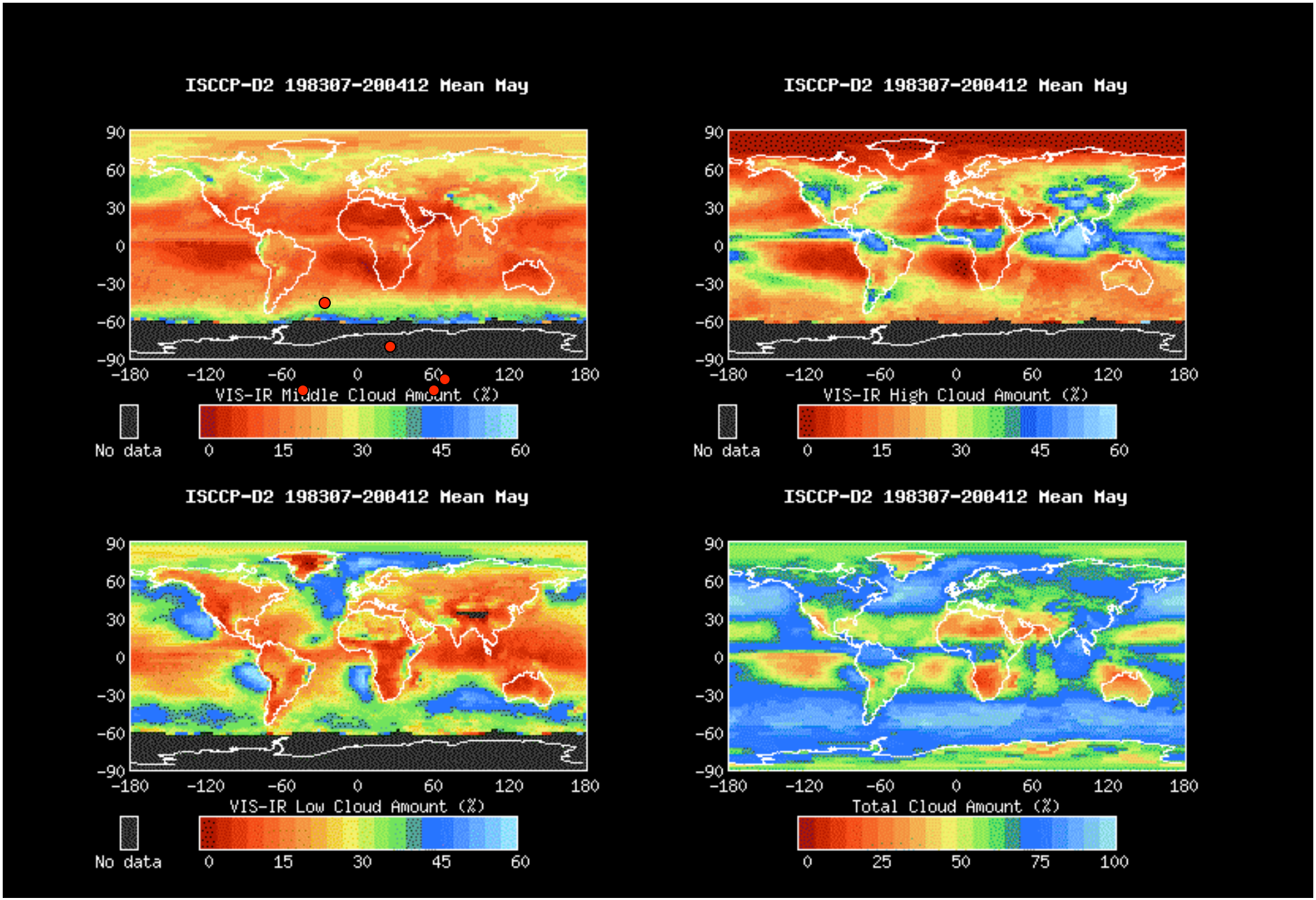
300 mb Winds - May



May Mean Tropopause (mb)



May Middle Clouds (%)



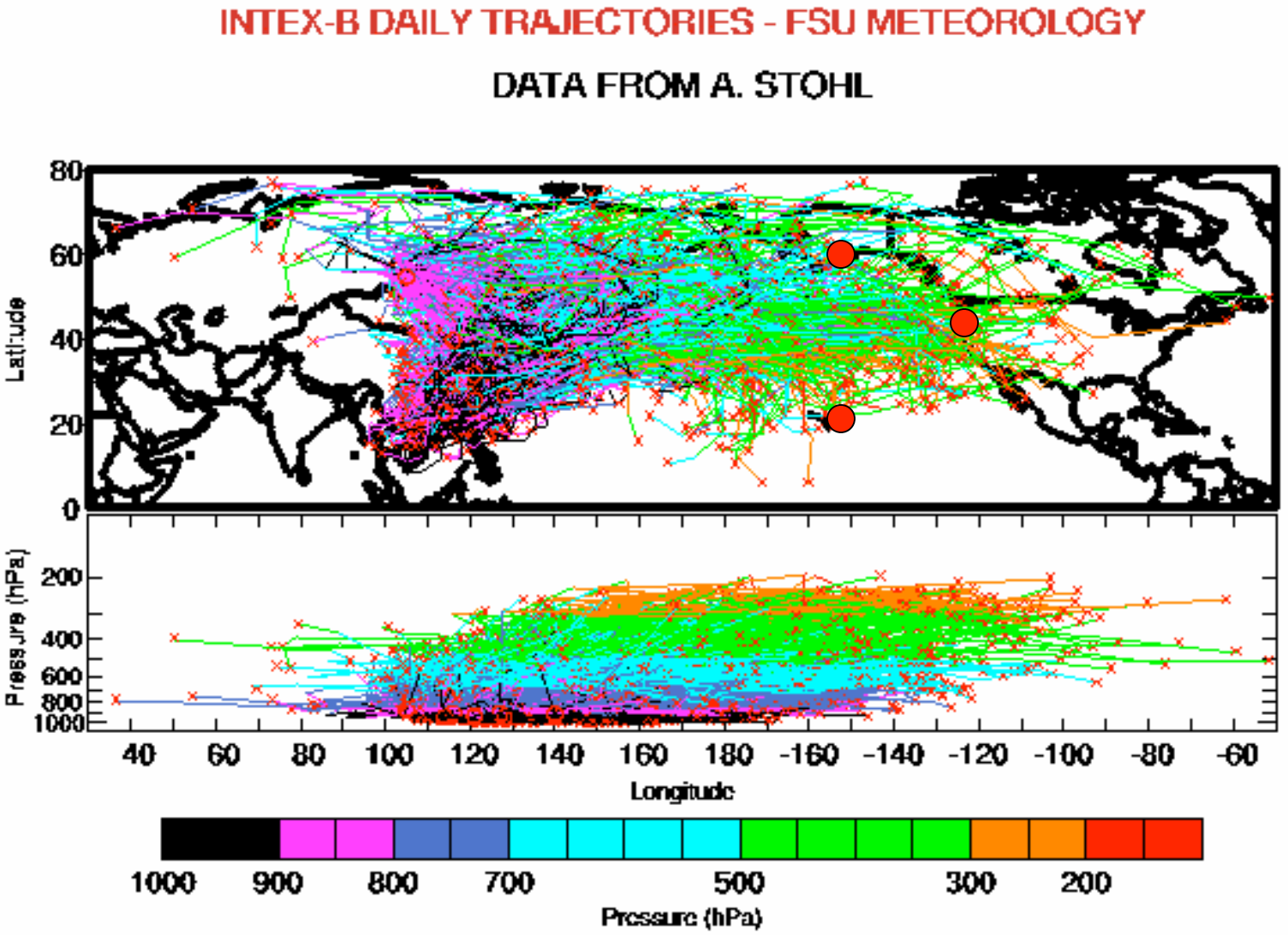
May Weather in Anchorage

- Avg. Max 54.4°F
- Avg. Min 38.8°F
- Avg. Sky Cover 80%
- Avg. Clear Days 4
- Avg. Partly Cloudy Days 7
- Avg. Cloudy Days 20
- Avg. Precipitation 0.73 in.

May Weather in Seattle

- Avg. Max 63.9°F
- Avg. Min 46.3°F
- Avg. Sky Cover 70%
- Avg. Clear Days 5
- Avg. Partly Cloudy Day 9
- Avg. Cloudy Days 17
- Avg. Precipitation 2.33 in.

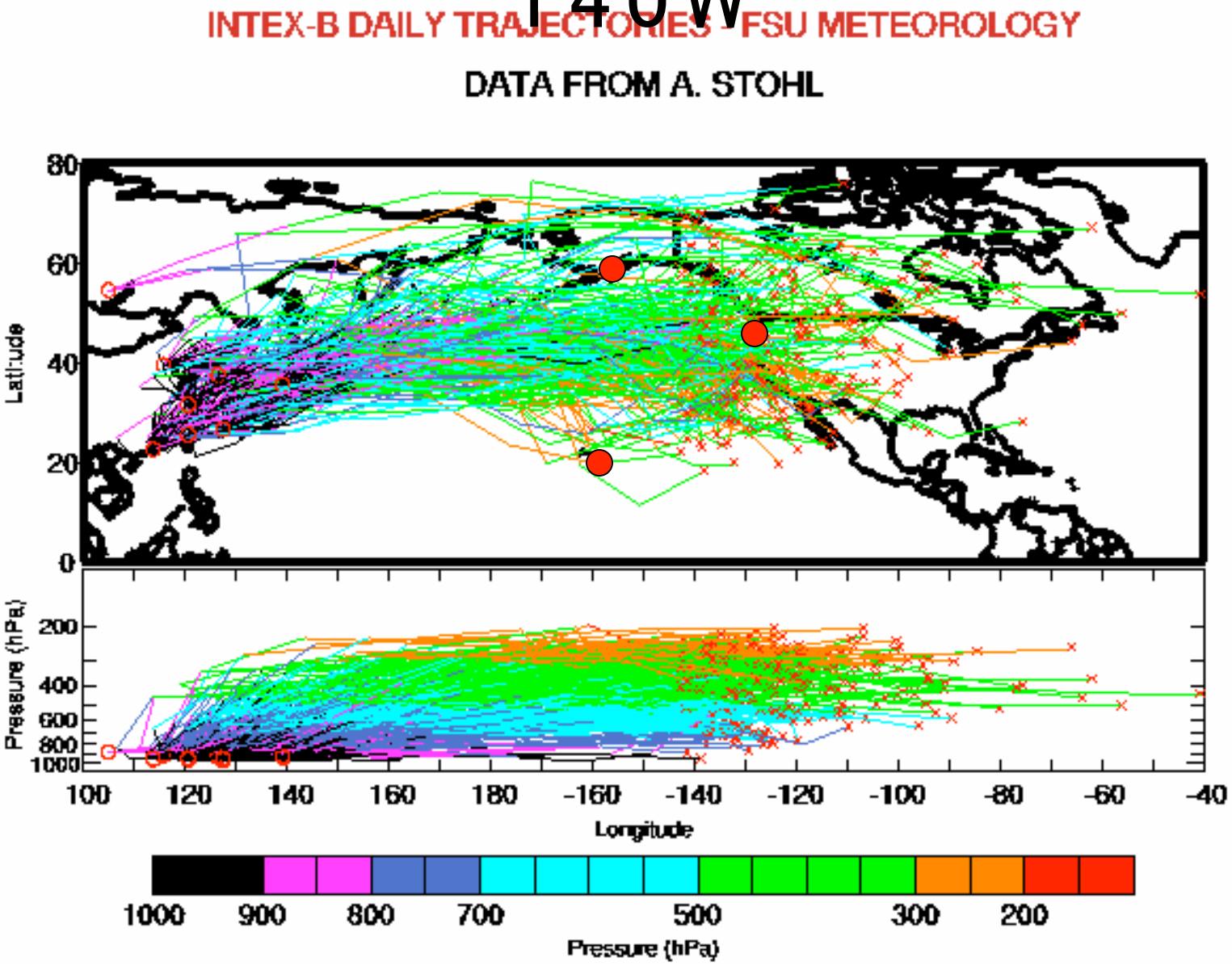
6-day Forward—Asia



May Data for 15 years

3720 trajectorie

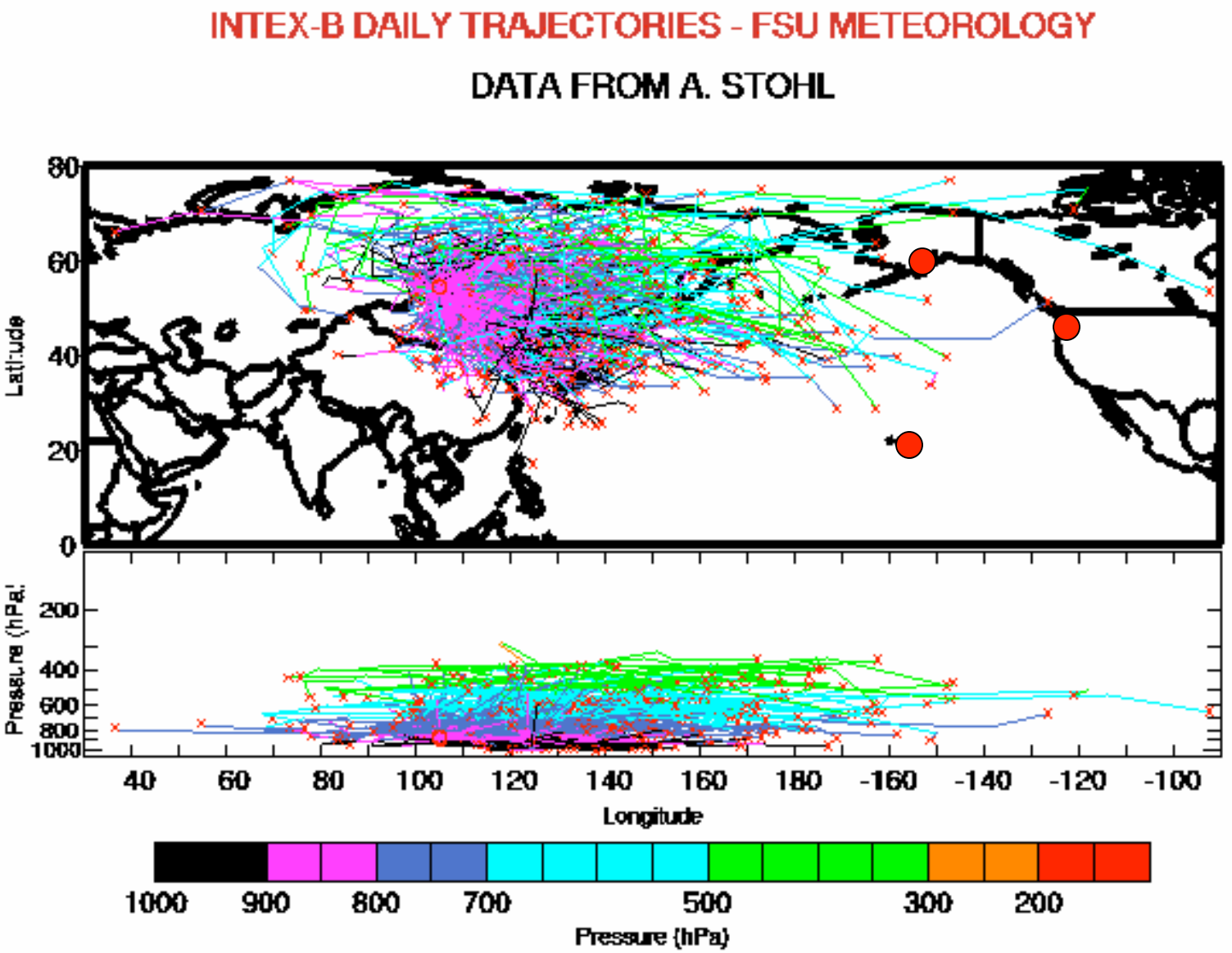
6-day Forward Asia – End Past 140W



May Data for 15 years

272 trajectories ~ 7

6-day Forward—Siberia



May Data for 15 years

465 trajectories

Role of Mission Meteorologist

- Prepare flight forecasts
- Assist in flight planning
- Be a meteorological resource during mission
- Conduct post-flight research
- Assist in your research
- Tell us how we can help you
- Will be happy to assist in any way possi