ARB Decision Process

October 15, 2003

Yosemite NP, California

California Environmental Protection Agency

Air Resources Board

Outline

- Title 17 Criteria
- Decision Tools
- CB-3 Forms
- Communication

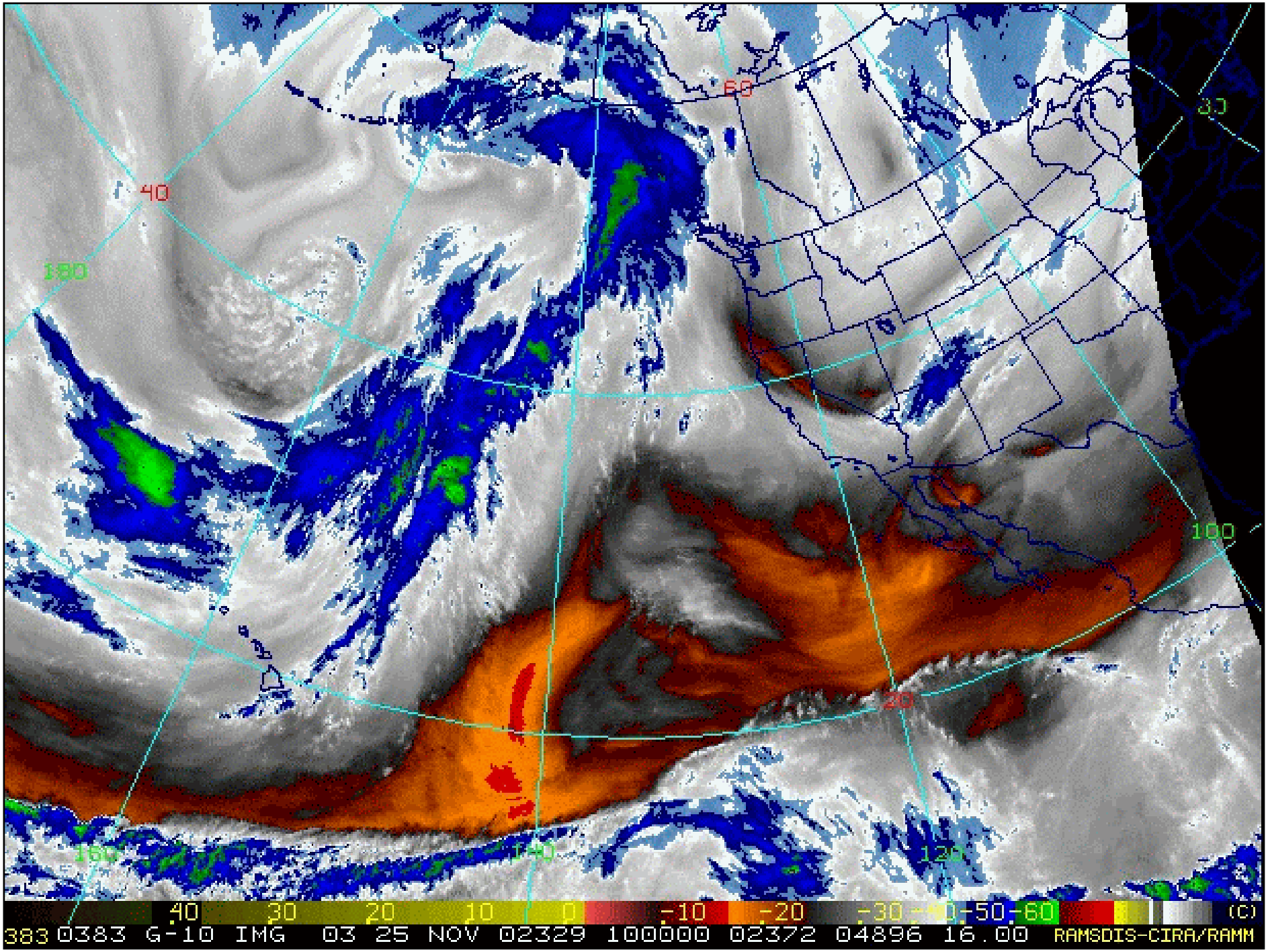
Limiting 500 Millibar Height by Basin*

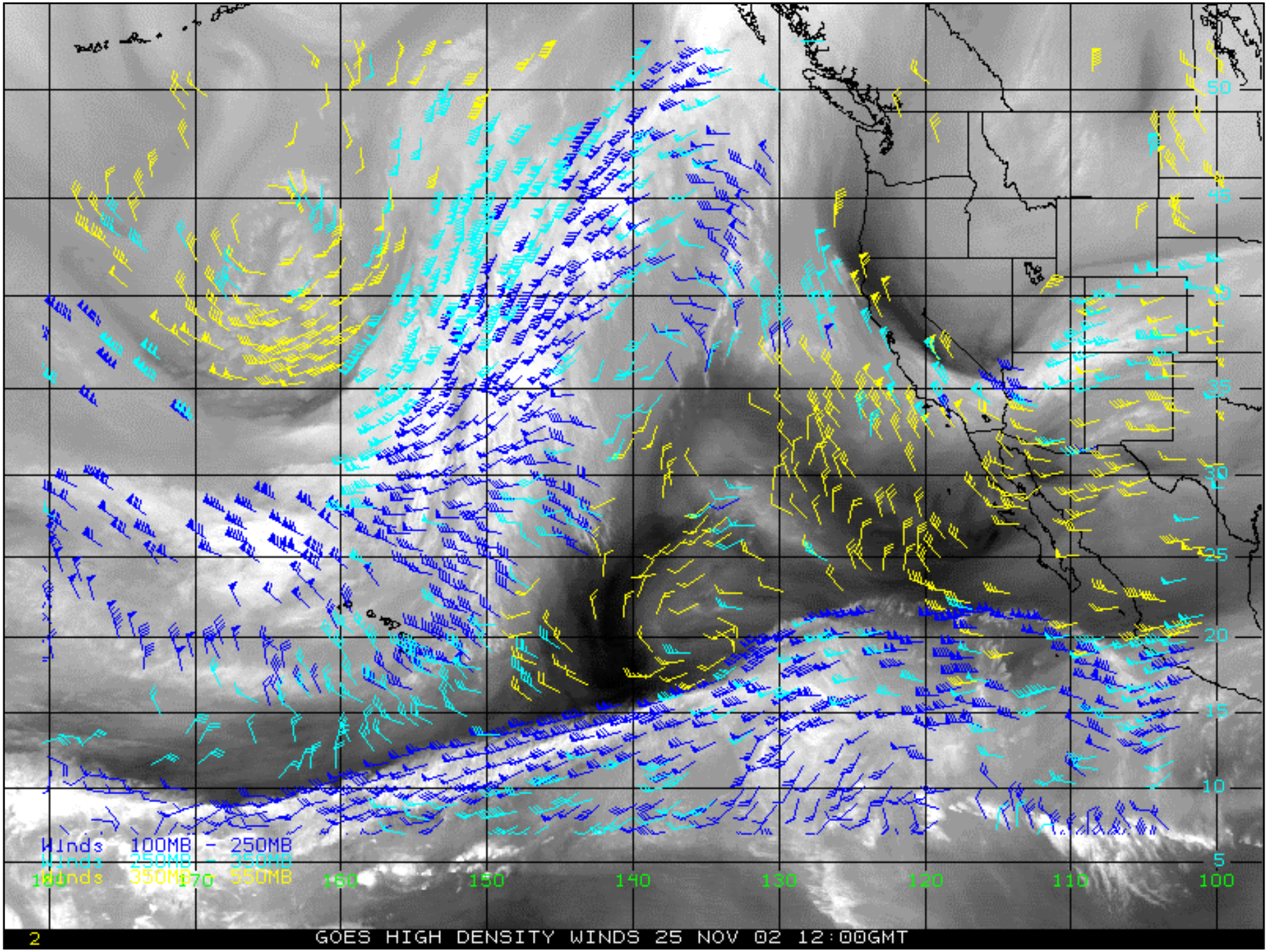
	Sacramento Valley North Coast Northeast Plateau Moutain Counties	San Joaquin Valley North Central Coast South Central Coast Great Basin Valleys	Tahoe
January	5740	5750	5630
February	5740	5740	5620
March	5740	5740	5630
April	5760	5760	5660
May	5790	5800	5710
June	5850	5850	5780
July	5880	5880	5830
August	5880	5880	5840
September	5870	5870	5810
October	5850	5850	5760
November	5810	5810	5700
December	5760	5780	5630

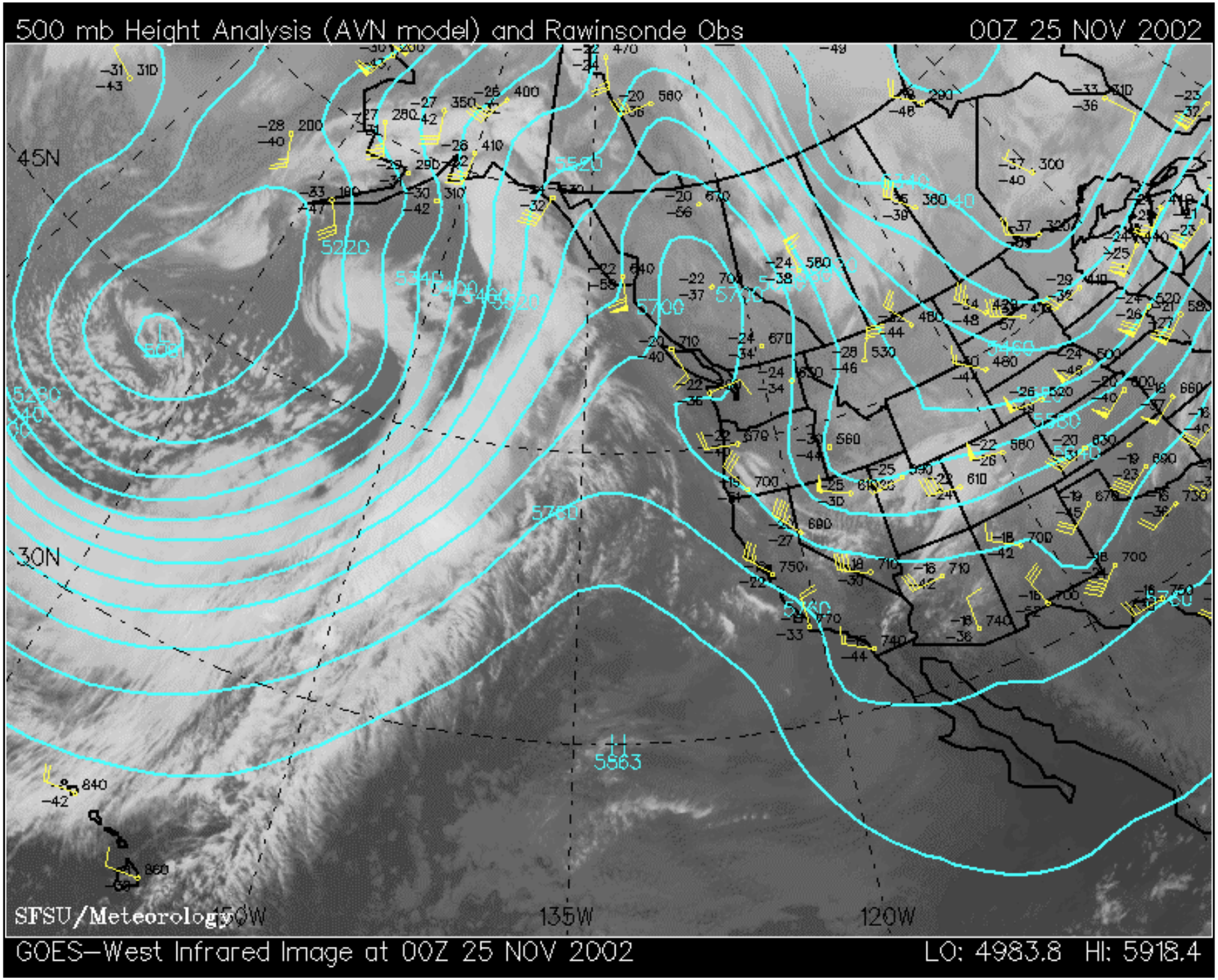
* Height in meters

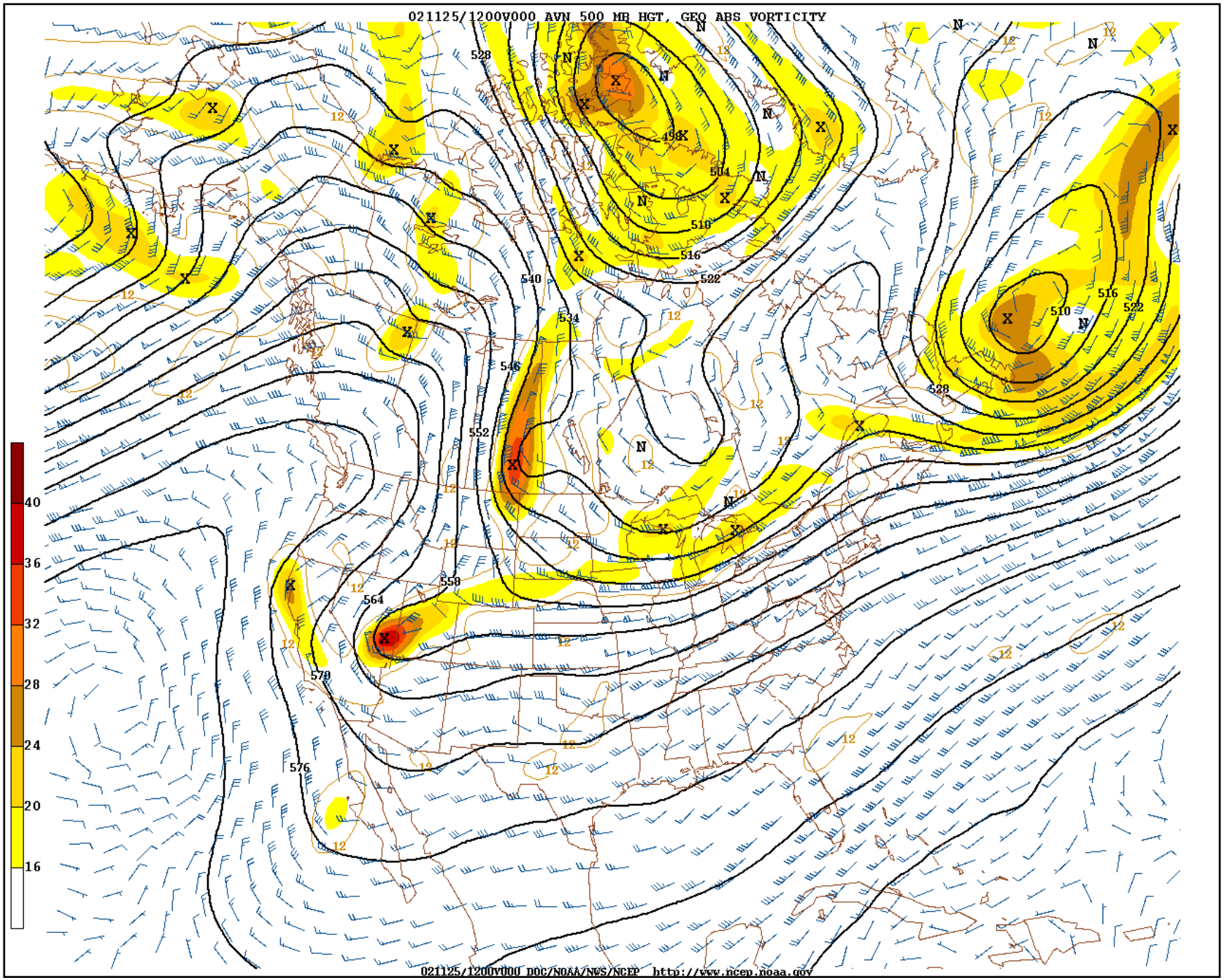
Decision Tools

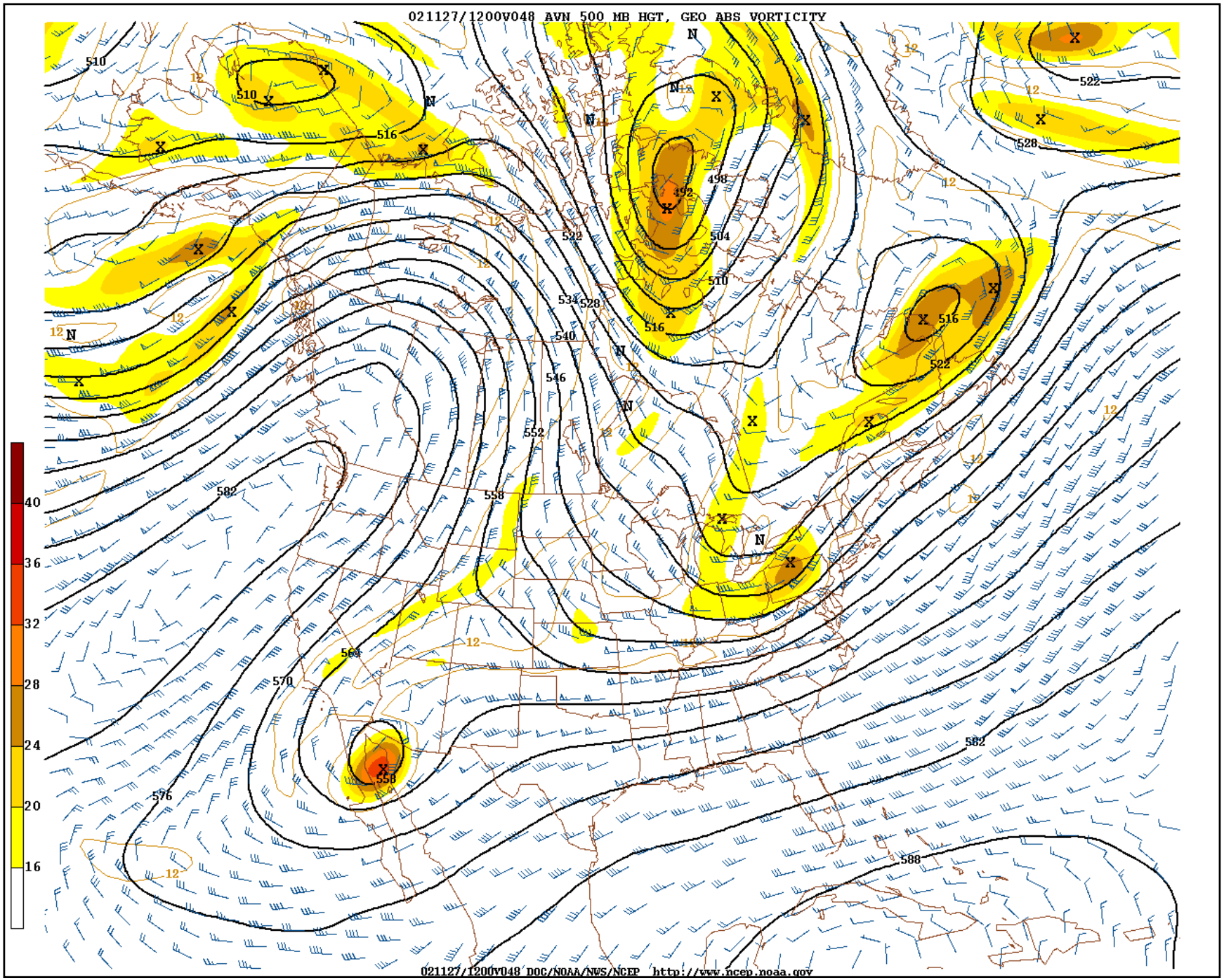
- Satellite Images
- Model Forecasts
  - 500 mb & 850 mb charts
- Temperature Soundings
- Profilers

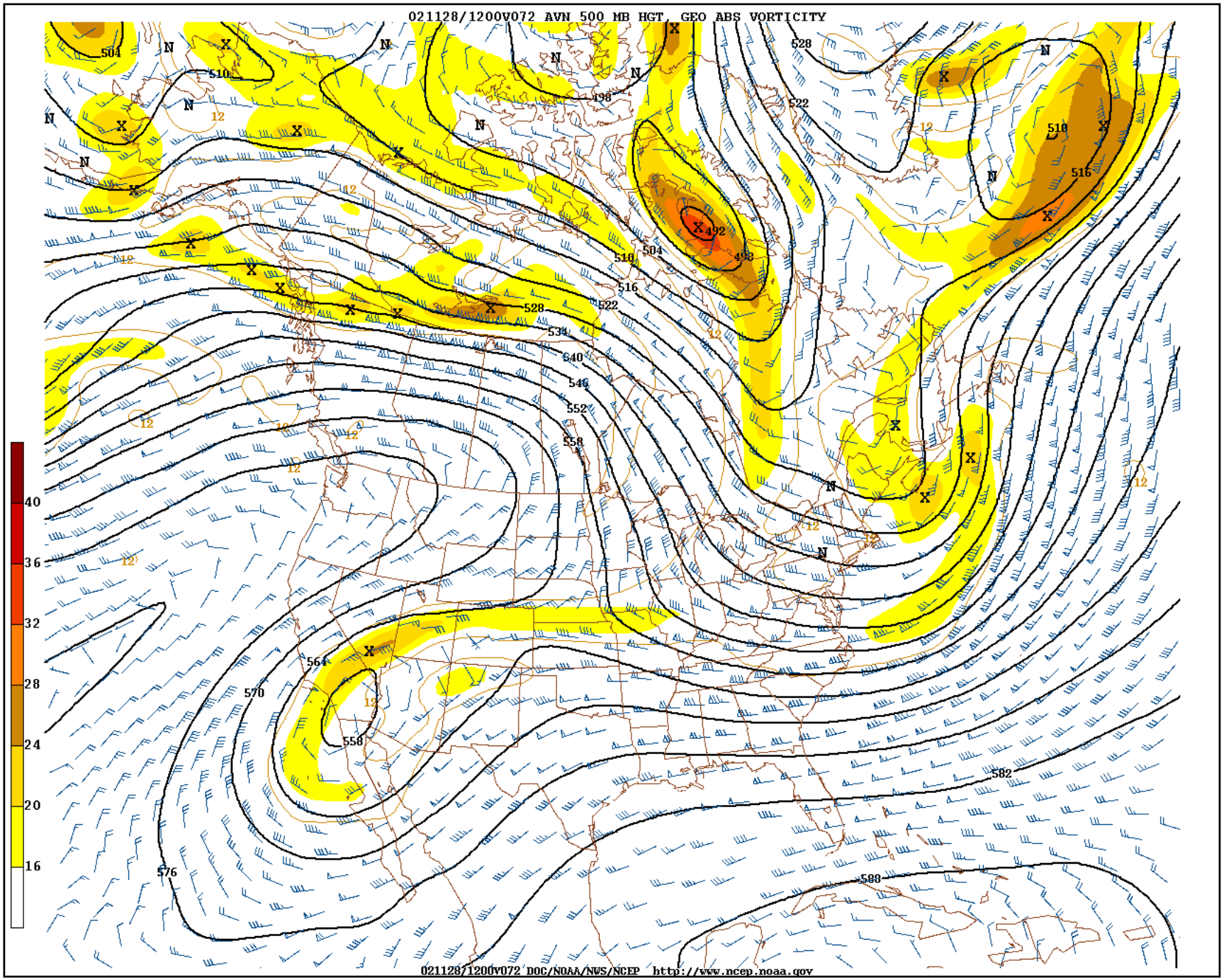

60
30
40
180
100
20
160
140
120
40 30 20 10 0 -10 -20 -30 -40 -50 -60 (C)
383 0383 G-10 IMG 03 25 NOV 02329 100000 02372 04896 16.00 RAMSDIS-CIRA/RAMM

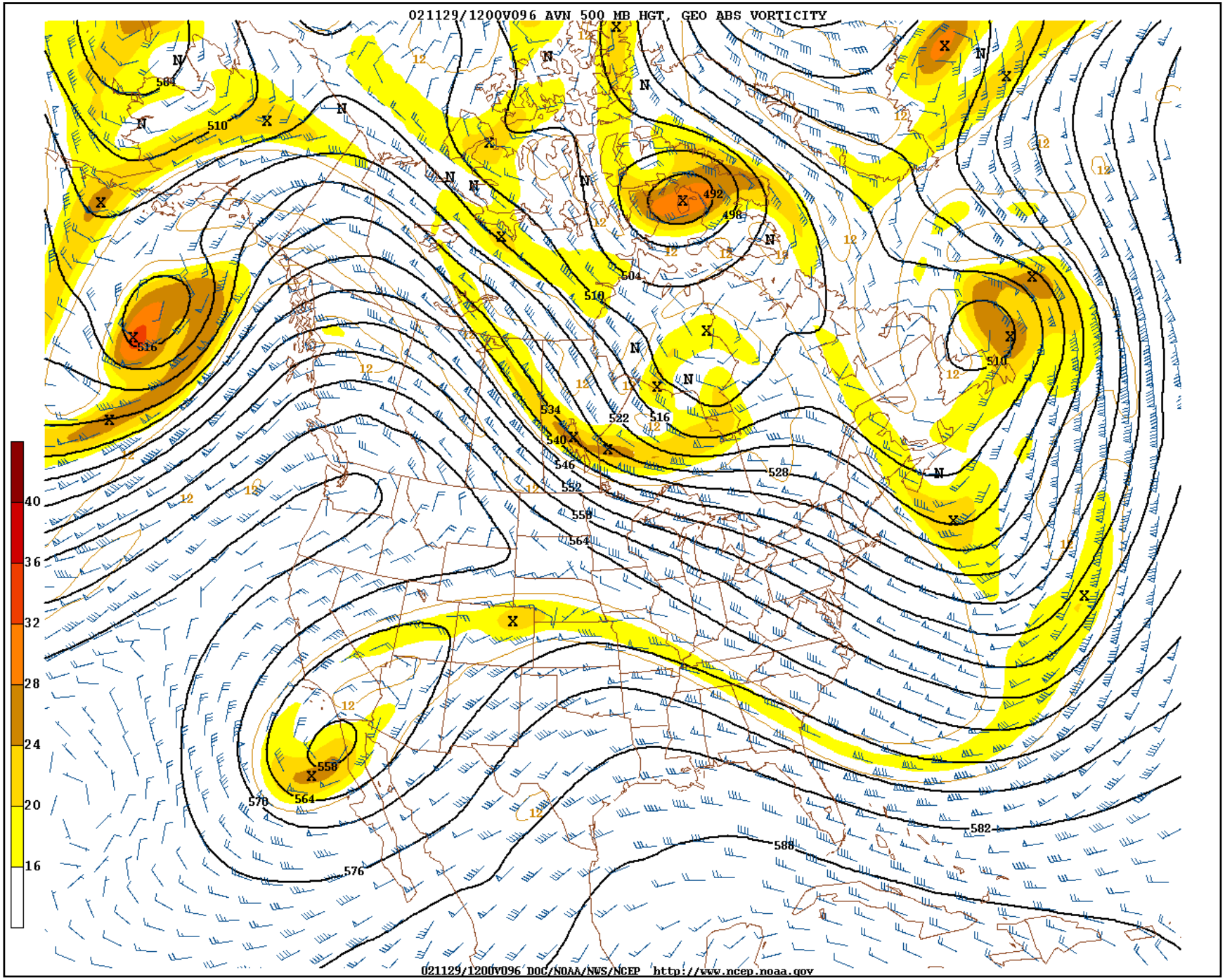

Winds 100MB - 250MB
Winds 250MB - 350MB
Winds 350MB - 550MB
50
45
40
35
30
25
20
15
10
5
180
170
160
150
140
130
120
110
100
2
GOES HIGH DENSITY WINDS 25 NOV 02 12:00GMT


500 mb Height Analysis (AVN model) and Rawinsonde Obs
00Z 25 NOV 2002
45N
30N
135W
120W
SFSU/Meteorology
GOES-West Infrared Image at 00Z 25 NOV 2002
LO: 4983.8 HI: 5918.4


021125/1200V000 AVN 500 MB HGT, GEO ABS VORTICITY
528
498
504
510
516
522
540
534
546
552
558
564
570
576
40
36
32
28
24
20
16
021125/1200V000 DOC/NOAA/NWS/NCEP http://www.ncep.noaa.gov


021127/1200V048 AVN 500 MB HGT, GEO ABS VORTICITY
40
36
32
28
24
20
16
021127/1200V048 DOC/NOAA/NWS/NCEP http://www.ncep.noaa.gov


021128/1200V072 AVN 500 MB HGT, GEO ABS VORTICITY
504
510
498
528
522
492
516
534
540
546
552
558
564
570
576
582
588
40
36
32
28
24
20
16
021128/1200V072 DOC/NOAA/NWS/NCEP http://www.ncep.noaa.gov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40
36
32
28
24
20
16
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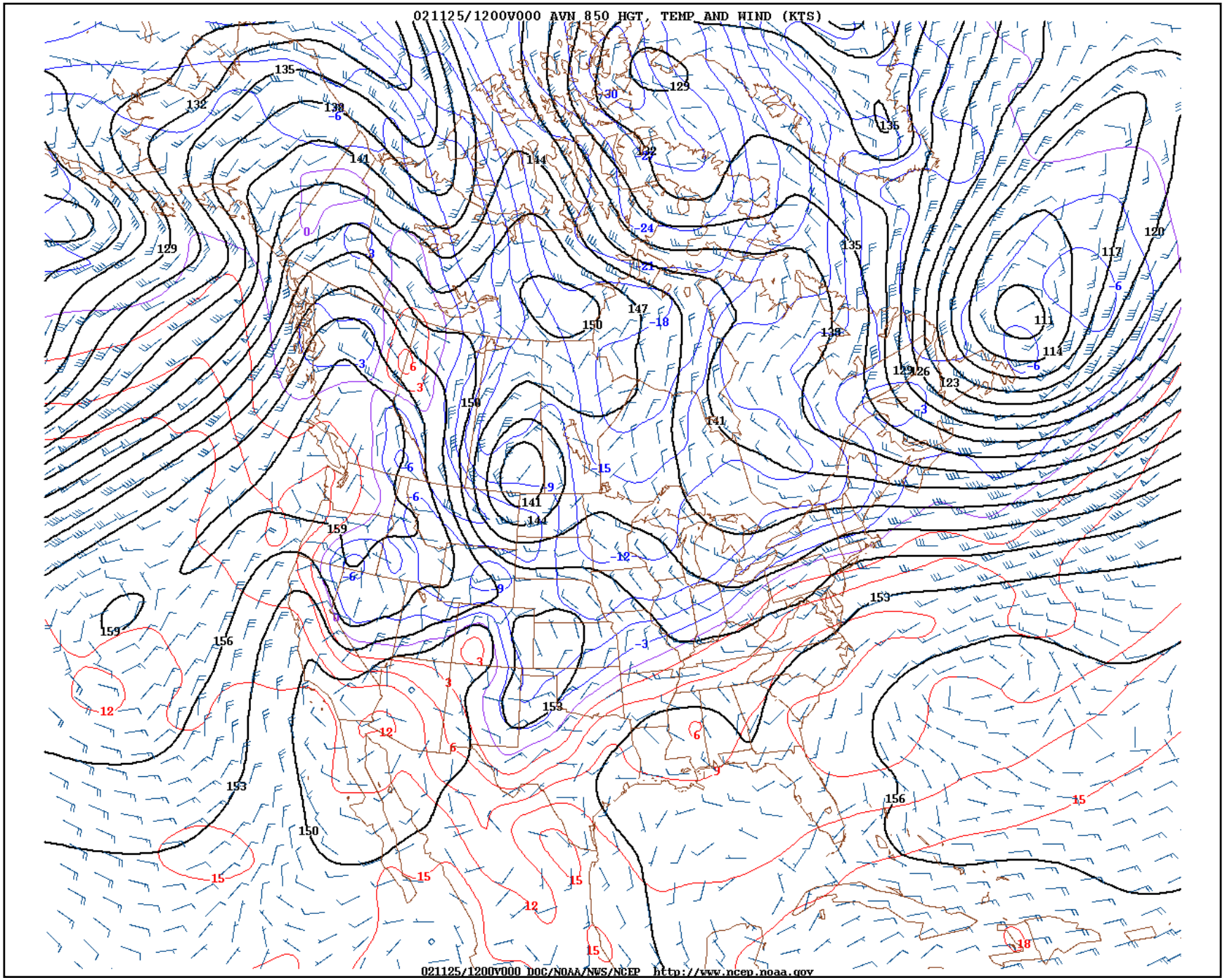
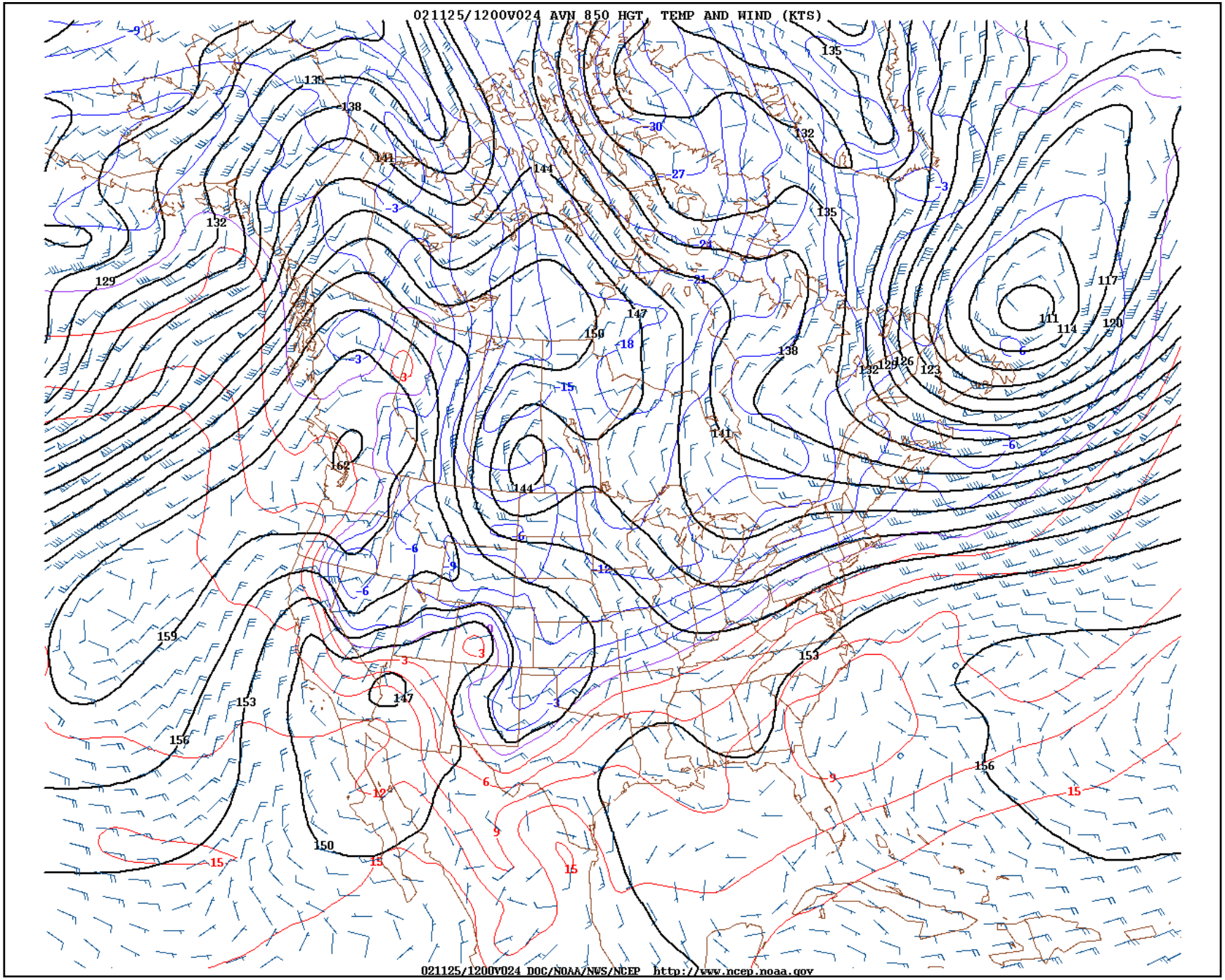
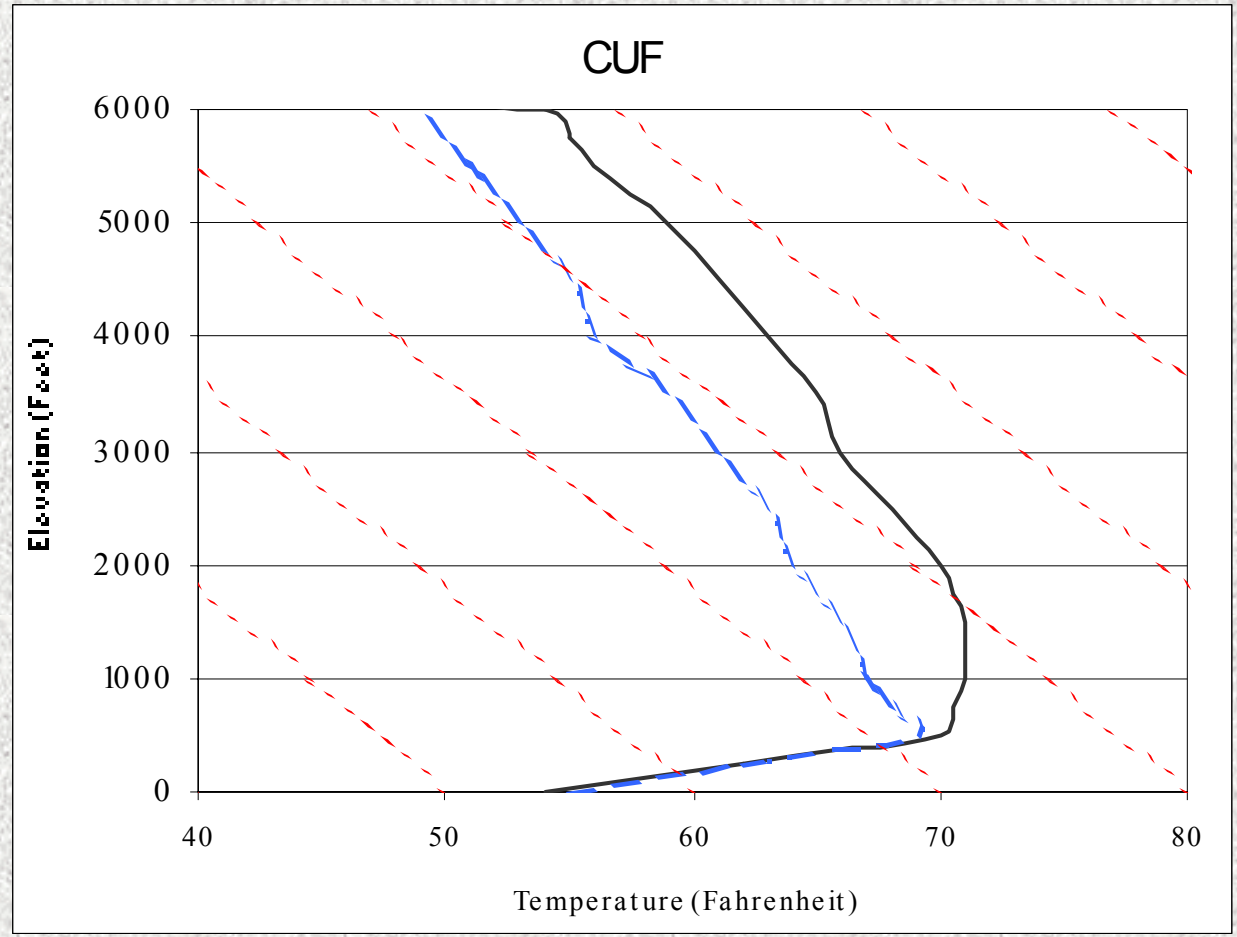

021125/1200V000 AVN 850 HGT, TEMP AND WIND (KTS)
021125/1200V000 DOC/NOAA/NWS/NCEP http://www.ncep.noaa.gov


021125/1200V024 AVN 850 HGT, TEMP AND WIND (KTS)
021125/1200V024 DOC/NOAA/NWS/NCEP http://www.ncep.noaa.gov

ARB Aircraft Temperature Sounding (Oct 6, 2003)



Location	Boundary Layer Winds	Surface Conditions	Upper Air Winds
Seattle, WA	031009_1505 Z	-	031009_1537 Z
Chico, CA	031007_1500 Z	031007_1558 Z	031007_1503 Z
Grass Valley, CA	031009_1400 Z	031009_1548 Z	031009_1404 Z
Sacramento, CA	031009_1510 Z	-	031009_1512 Z
Vacaville, CA	-	031009_1614 Z	-
Napa, CA	-	031009_1509 Z	-
Tracy, CA	020415_0305 Z	-	020415_0306 Z
Livermore, CA	031009_1505 Z	-	031009_1506 Z
Chowchilla, CA	031009_1500 Z	031005_0806 Z	031009_1503 Z
Ano Nuevo, CA	-	031008_1750 Z	-
Santa Cruz, CA	-	031009_1655 Z	-
Watsonville, CA	-	031009_1609 Z	-
Fort Ord, CA	031009_1634 Z	031009_1658 Z	031009_1535 Z
Fort Ord, Range 30	-	031009_1708 Z	-
Salinas, CA	-	031009_1610 Z	-
Monterey (Aquarium), CA	-	031009_1554 Z	-
Monterey (Del Monte Beach), CA	-	031009_1640 Z	-
Monterey (Airport), CA	-	031009_1612 Z	-
Granite Canyon, CA	-	031009_1554 Z	-
Point Sur, CA	-	031009_1648 Z	-
Pt Piedras Blancas ASOS, CA	-	031009_1612 Z	-
Paso Robles, CA	-	031009_1559 Z	-

Location	Boundary Layer Winds	Surface Conditions	Upper Air Winds
Visalia, CA	031009 1505 Z	-	031009 1509 Z
Lost Hills, CA	031009 1500 Z	031009 1530 Z	031009 1503 Z
San Luis Obispo, CA	-	031009 1602 Z	-
Santa Maria, CA	-	031009 1604 Z	-
Simi Valley, CA	031009 1533 Z	-	-
Ontario, CA	031009 1605 Z	-	031009 1606 Z
Moreno Valley, CA	031009 1505 Z	-	031009 1506 Z
Los Angeles (LAX), CA	030930 1805 Z	-	030930 1807 Z
San Nicolas Island, CA	031009 1400 Z	031009 1454 Z	031009 1400 Z
Miramar, CA	031009 1405 Z	-	031009 1406 Z
Point Loma, CA	031009 1505 Z	-	031009 1506 Z

Last Reviewed and updated: 15 April 2003

E-mail metweb@nps.navy.mil

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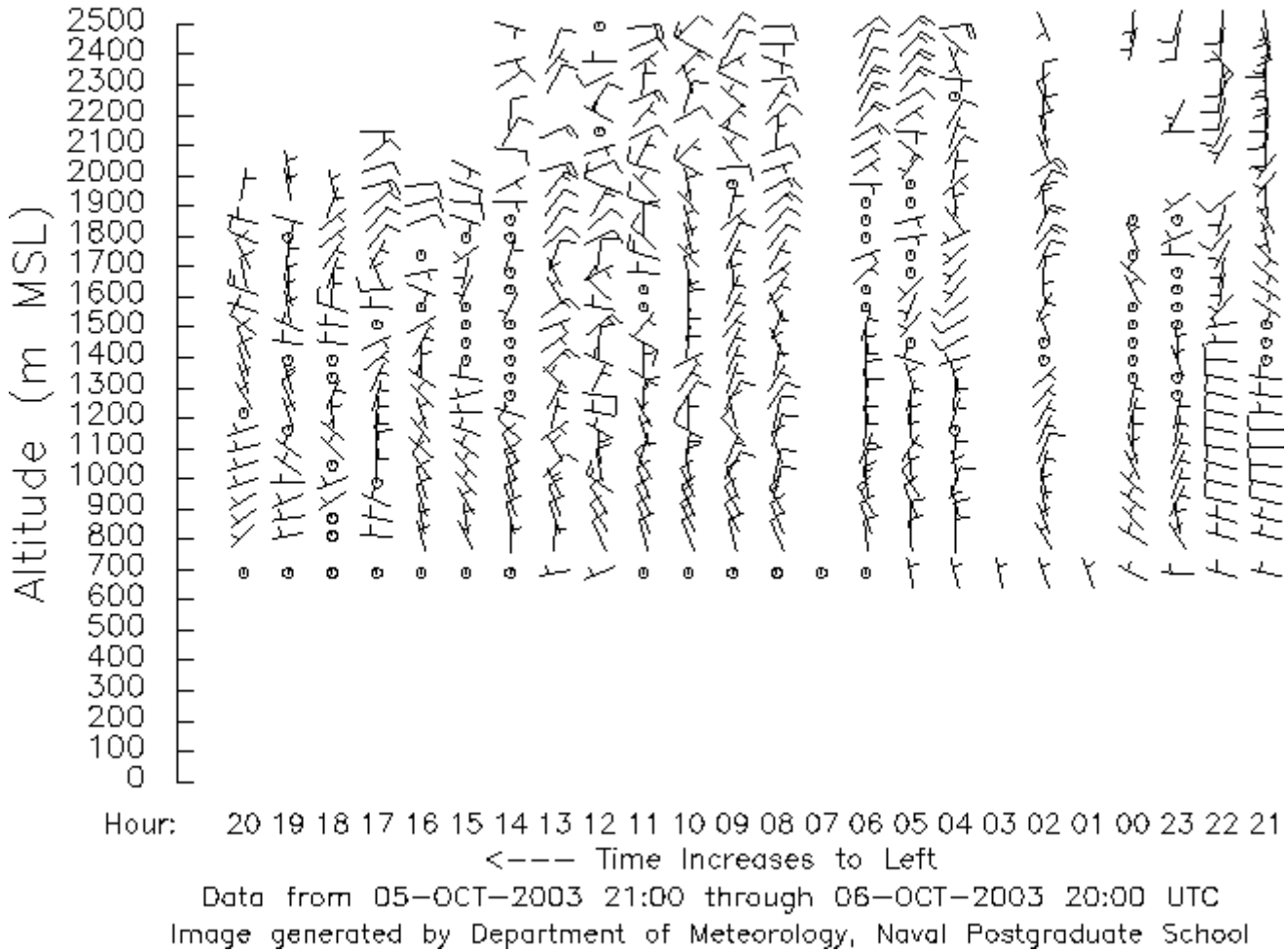
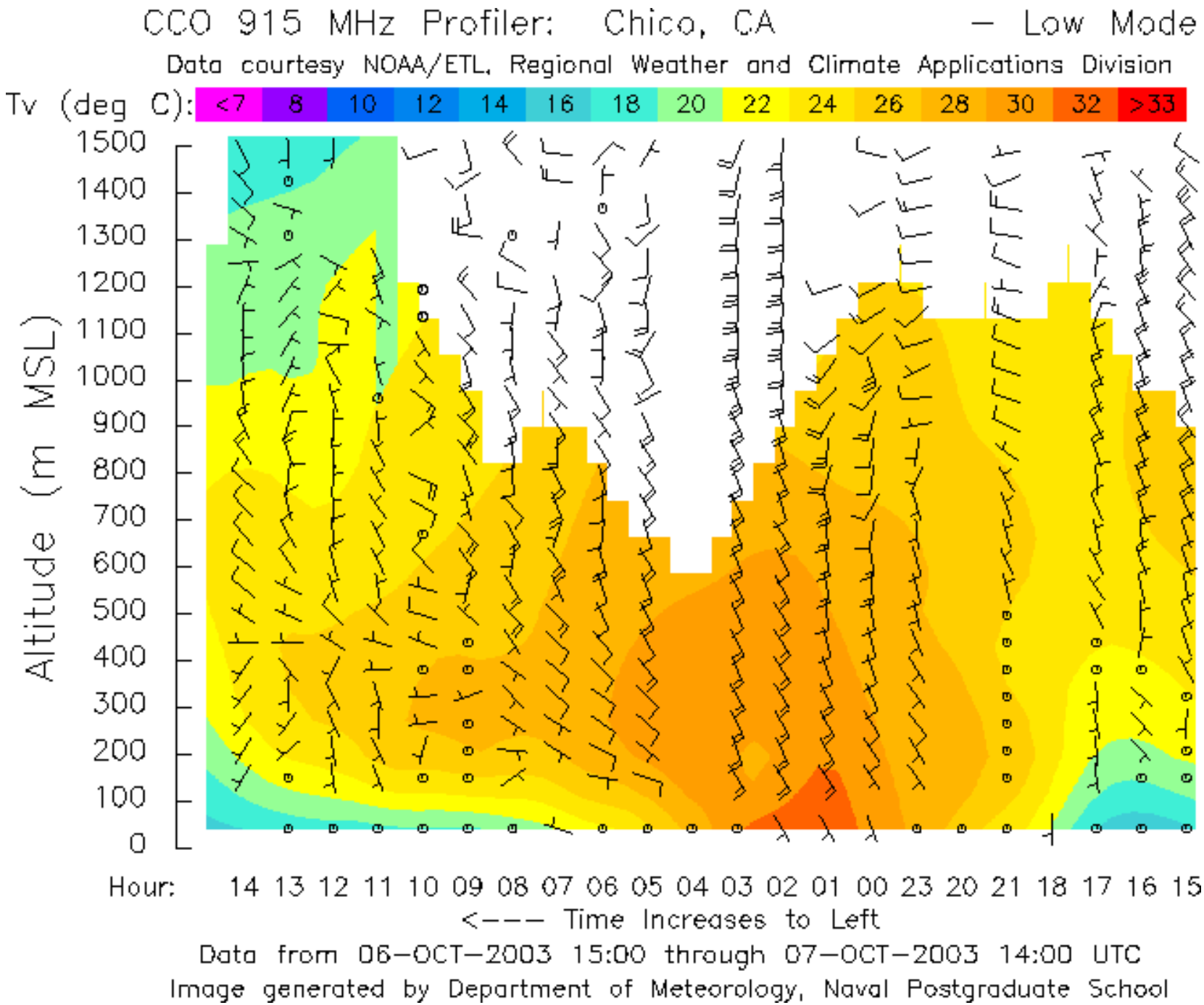
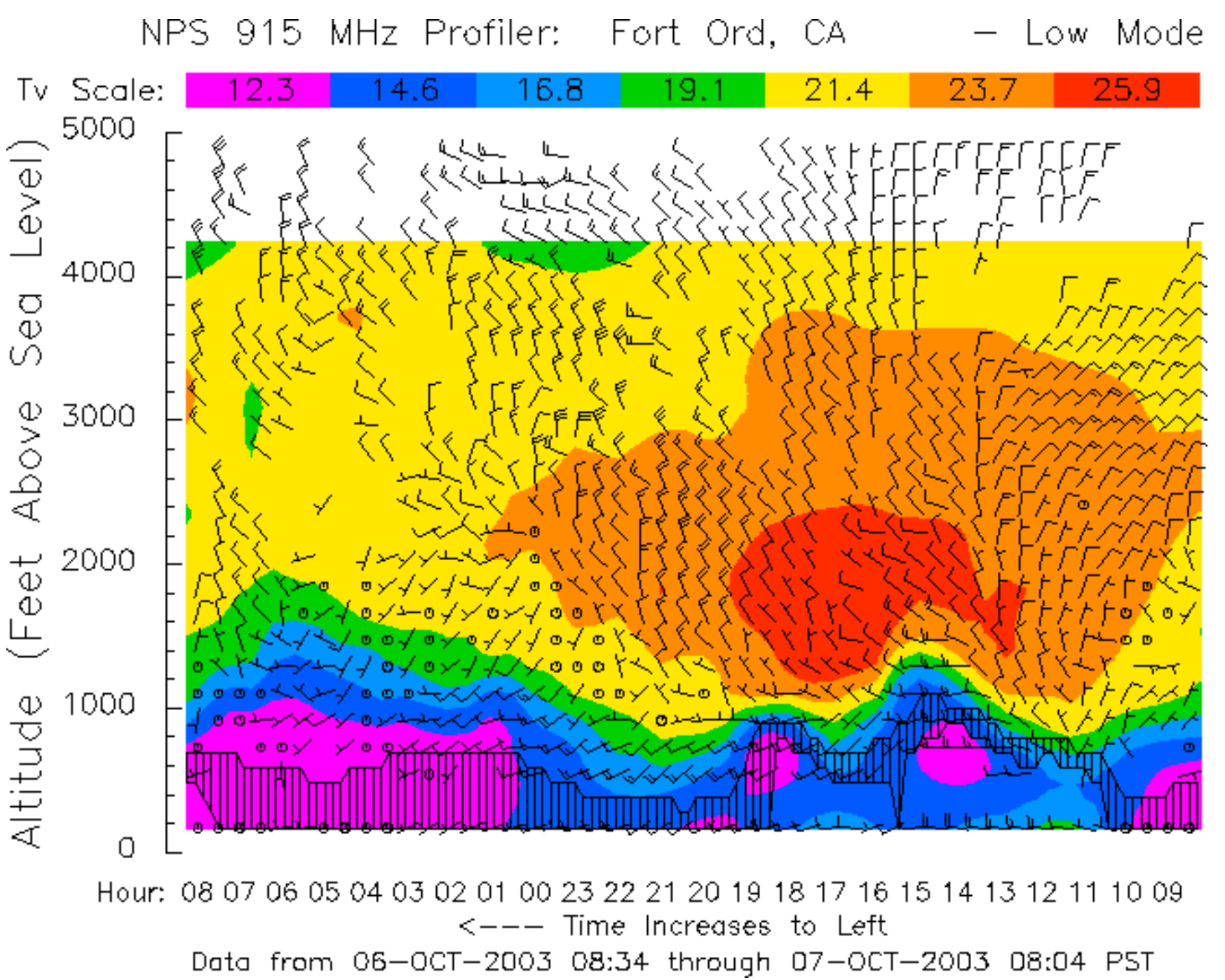

GVY 915 MHz Profiler: Grass Valley, CA – Low Mode
Data courtesy NOAA/ETL, Regional Weather and Climate Applications Division
Altitude (m MSL)
2500
2400
2300
2200
2100
2000
1900
1800
1700
1600
1500
1400
1300
1200
1100
1000
900
800
700
600
500
400
300
200
100
0
Hour: 20 19 18 17 16 15 14 13 12 11 10 09 08 07 06 05 04 03 02 01 00 23 22 21
<--- Time Increases to Left
Data from 05–OCT–2003 21:00 through 06–OCT–2003 20:00 UTC
Image generated by Department of Meteorology, Naval Postgraduate School


CCO 915 MHz Profiler: Chico, CA — Low Mode
Data courtesy NOAA/ETL, Regional Weather and Climate Applications Division
Tv (deg C): <7 8 10 12 14 16 18 20 22 24 26 28 30 32 >33
Altitude (m MSL)
1500
1400
1300
1200
1100
1000
900
800
700
600
500
400
300
200
100
0
Hour: 14 13 12 11 10 09 08 07 06 05 04 03 02 01 00 23 20 21 18 17 16 15
<--- Time Increases to Left
Data from 06-OCT-2003 15:00 through 07-OCT-2003 14:00 UTC
Image generated by Department of Meteorology, Naval Postgraduate School


NPS 915 MHz Profiler: Fort Ord, CA — Low Mode
Tv Scale: 12.3 14.6 16.8 19.1 21.4 23.7 25.9
Altitude (Feet Above Sea Level)
5000
4000
3000
2000
1000
0
Hour: 08 07 06 05 04 03 02 01 00 23 22 21 20 19 18 17 16 15 14 13 12 11 10 09
<--- Time Increases to Left
Data from 06-OCT-2003 08:34 through 07-OCT-2003 08:04 PST

CB-3 Forms

Purpose: To provide outlook for future burn status.

Procedure:

- Burner completes form
- Burner submits form to district
- District forwards form to ARB
- ARB contacts district with 48-, 72-, 96-hr trend
- District makes 24-hr decision
- District and Burner coordinate outlook

Controlled Burn "Notices" (24-hr decisions, 48-hr forecasts, 72-hr outlook, and 96-hr trends)

State of California
Air Resources Board
Planning and Technical Support Division
Meteorology Section
P.O. Box 2815
Sacramento, CA 95812

Name of Burn: PW#3 Gin Flat
Organization responsible for Burn: Yosemite NP
Natural Ignition (FURB?) __Yes / __No
Active during Month: Cct Year 2003
Burn Window - Start: 10/4/2003 End: 10/31/03

County: Mariposa/Tuolumne | Mean Elevation (ft.): 6200 | Overnight? x Yes / __No
District: Mariposa/Tuolumne | Min. Elevation (ft.): 5720 | Total Acres 7188 | Tons/Acre: 18.5
Air Basin: Mountain Counties | Max. Elevation (ft.): 6680 | Acres/Day <250 | Percent treated:
Meridian: Humboldt / x Mt. Diablo / __San Bernardino | *Latitude:* | *Longitude:*
Location(s) T 2S R 20E Section(s): 0 | T R Section(s): 0
Location of nearest sensitive area Aspen Valley is 3 / N (miles/direction) from the bur
Crane Flat is .5 / SW (miles/direction) from the bur
Special Circumstances: Multi-day x (# of days: 28) Large (>250 acres) __ ARB SMP Approval
Comments (prescription/burn window/notification/et Burn will be done slowly, similar to a natural ignition between April to Jul and September to December, 2002

District: Contact's Telephone Numb (209) 966 - 2220 **& Date Smoke Mgmt Plan Reviewed:**
Land Manager: Telephone Numb (209) 372 - 0491 **Weekend Numbe** ( ) -
District Contact's e-mail: **Land Manager's e-mail:** dan_buckley@nps.gov

			District will Determine Yes/ No			Provided to District By ARB Duty Meteorologist						
	Issued		24-hr Decision			48-hr Forecast		72-hr Outlook		96-hr Trend		
Date	Time PST	By	Valid Date	Yes/No	By D or C*	Valid Date	Fav/Unfav (L,M,H/X)**	Valid Date	Fav/Unfav (✓ or X)	Valid Date	Fav/Unfav (✓ or X)	Comments
1			2			3		4		5		
2			3			4		5		6		
3			4			5		6		7		
4			5			6		7		8		
5			6			7		8		9		
6			7			8		9		10		
7			8			9		10		11		
8			9			10		11		12		
9			10			11		12		13		
10			11			12		13		14		
11			12			13		14		15		
12			13			14		15		16		
13			14			15		16		17		
14			15			16		17		18		
15			16			17		18		19		

Communication

- Daily Conference Calls
  - FWC Redding/Riverside
  - Air Resources Board
  - District Staff
  - Burners
- Update ARB with progress of burn
- Feedback