

PROJECT STATUS SUMMARY

- **No Funding for 3rd Episode**
- **Status of CCOS Data**
 - Conference calls with ARB Dec 20, Jan 14
 - Emission Inventories (Jim Wilkinson)
 - Meteorological Data
 - >300 stations in database
 - ~1/3 missing wind speed and/or direction
 - Problems identified for non-CCOS sites (QC issues)
 - Upper air data missing 3 sites, other problems
 - No July 28

PROJECT STATUS SUMMARY

- Data availability → ARB's MM5/FDDA development schedule
 - QA for winds only
 - July/August, September, June
- New July/August dataset delivered early January
 - Upper air problems fixed
 - Other problems remain
 - New problems found
- ARB to re-extract wind data to replace missing values

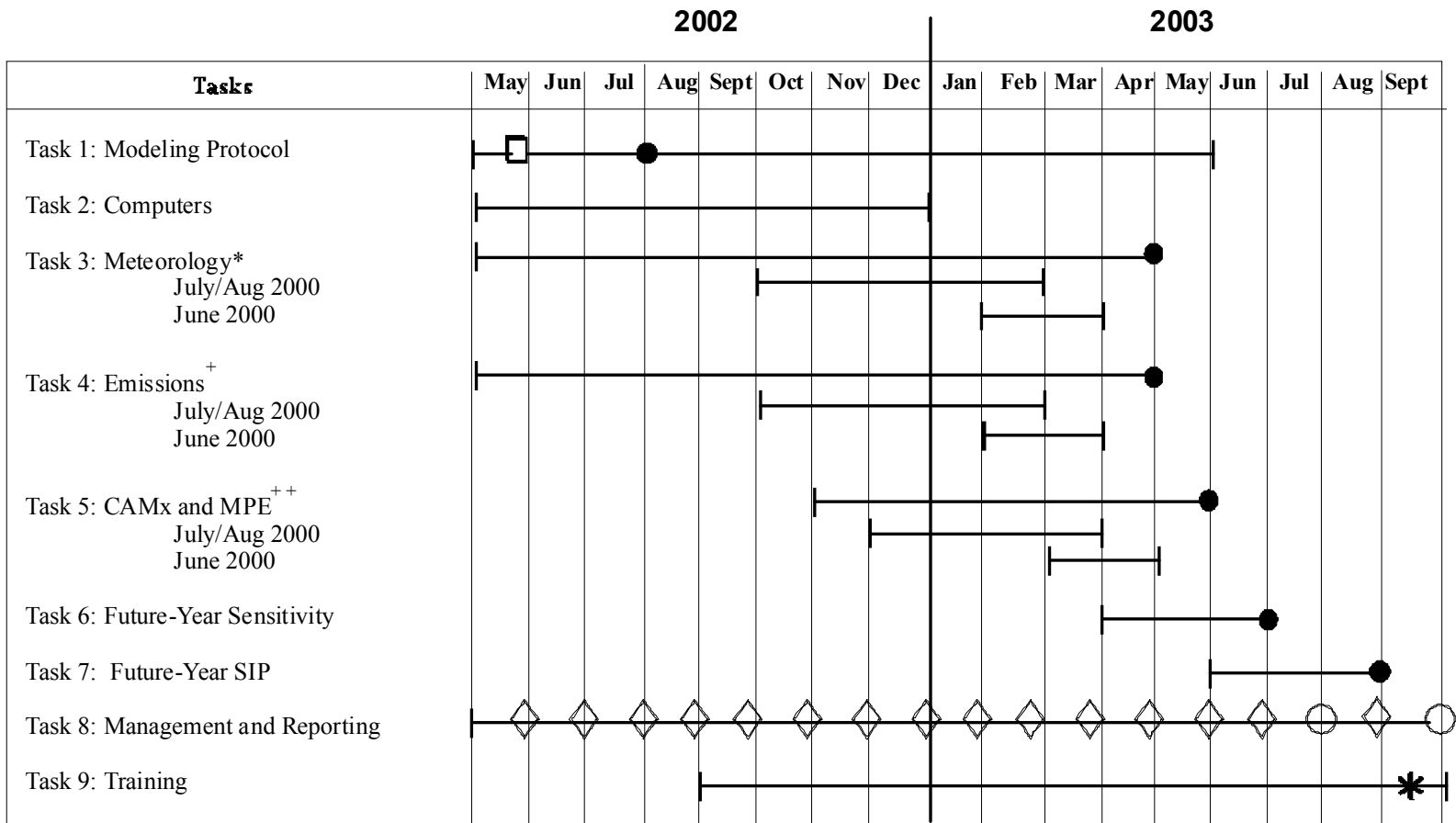
PROJECT STATUS SUMMARY

- New July/August data in late January
- June data in early February
- No QA for temperature, humidity
- Air quality data
 - QA'd July/August data:
 - Surface data: late January
 - Aircraft data: mid January
 - June 2000:
 - non-QA'd data: early February
 - QA'd data: mid February

PROJECT STATUS SUMMARY

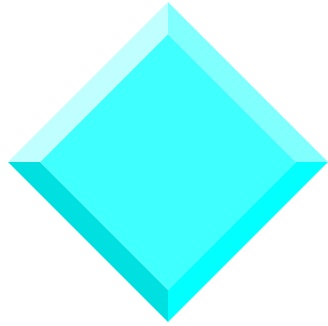
- **Contingencies**
 - Use standard NWS/NCAR data for RAMS
 - FDDA
 - Performance evaluation
 - Use QA'd CCOS dataset if/when available
 - Use ARB 2000 air quality data CD
 - CAMx performance evaluation
 - Use QA'd CCOS dataset if/when available
 - CCOS emissions absolutely required

ENVIRON



□ Kick-off Meeting ◇ Status Meetings ● Task Reports ○ Draft and Final Project Report * Delivery of Computer System

- * Assumes either: (1) No useable CCOS data available, no effort undertaken by study team to rectify data problems, met model evaluated against routine NOAA datasets only; or (2) Clean, validated, useable CCOS data provided for July/Aug episode by late January and for June episode by mid-February.
- + Assumes that CCOS emission inventory problems resolved by late January. CAMx performance will hinge on quality of emissions data as there are no alternative sources for such information.
- ++ Assumes that CCOS air quality data are clean, validated, provided by mid-February. Otherwise, standard California data provided by ARB on CD for 2000 will be utilized alone.



*BAAQMD 2004 SIP:
Status Of Emissions Modeling*

James G. Wilkinson

Cynthia F. Loomis

Alpine Geophysics



Overview

- ❖ Data that has been delivered
- ❖ Graphical summary of emissions
- ❖ Tabular summary of emissions
- ❖ Problems
- ❖ Current standing of overall emissions modeling effort

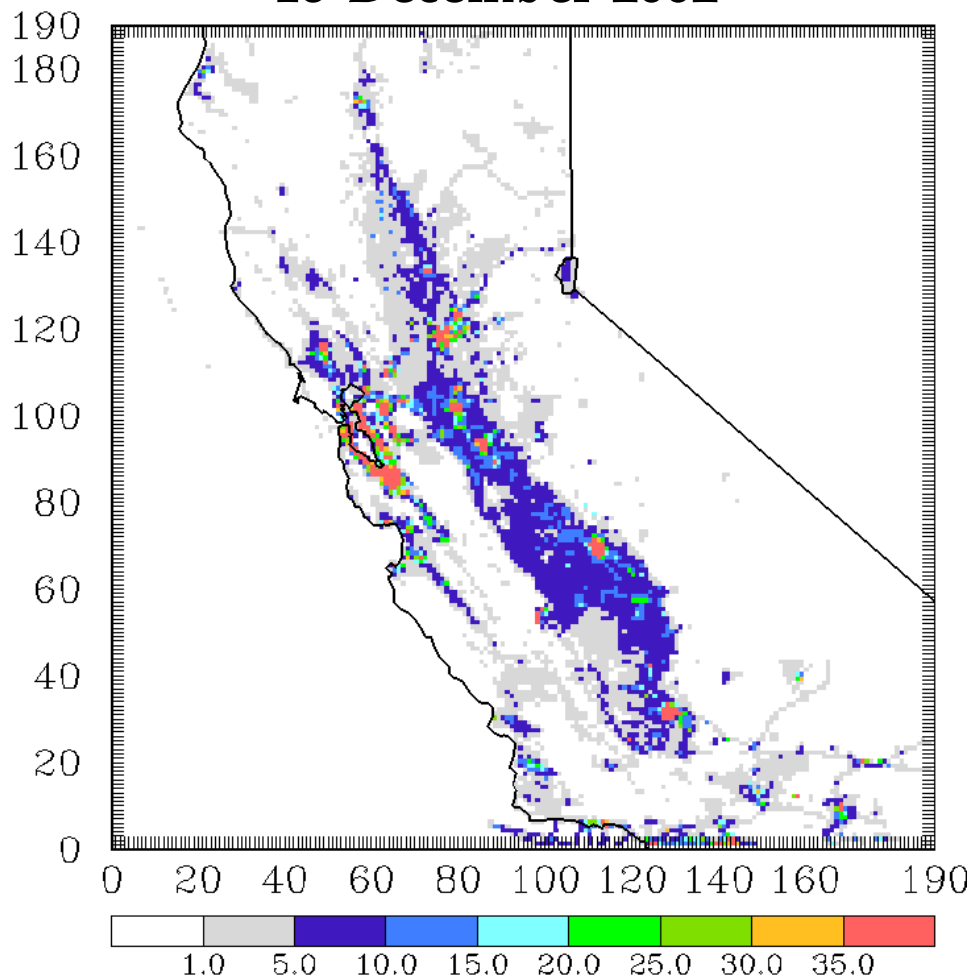


Emissions Data From ARB & BAAQMD

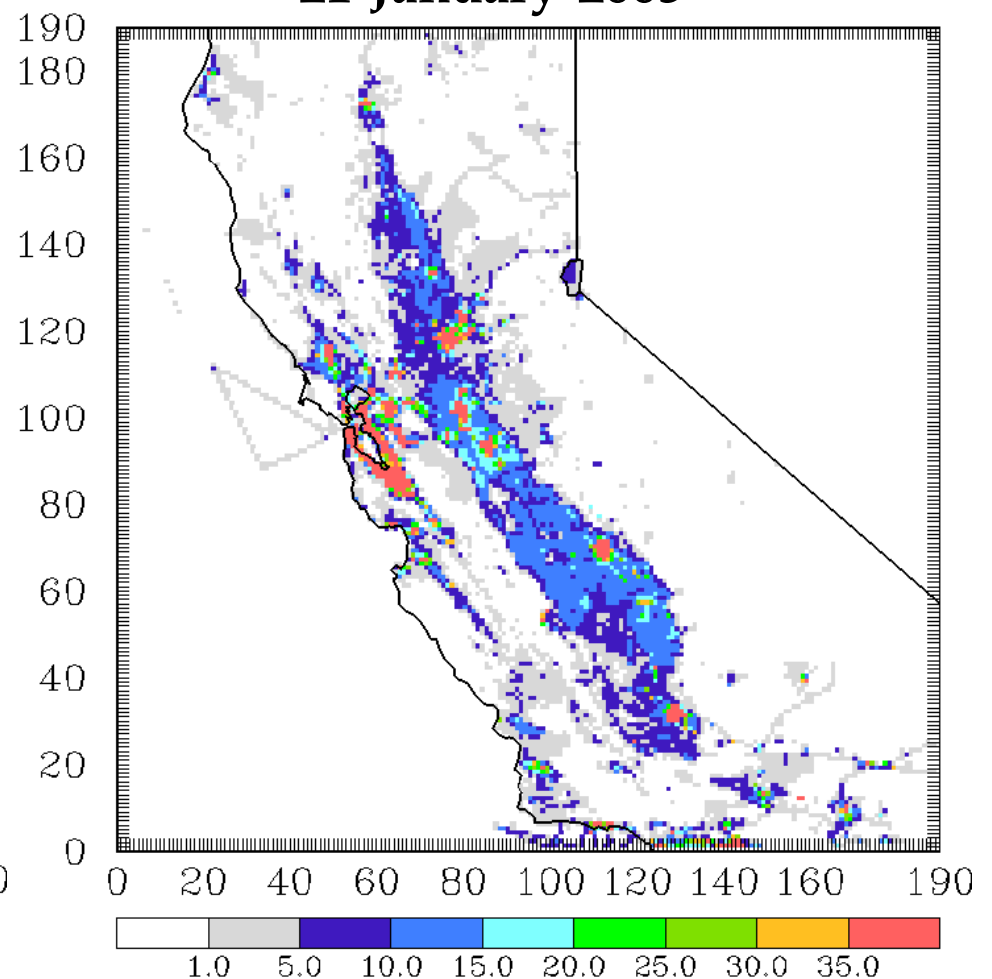
- ❖ Next Round of July-August 2000 Episode (with multiple revisions)
 - Point and Area Sources
 - New 2000-based Surrogates
 - Gridded, Hourly
 - TOG, NOX, CO
 - Day-Specific Wildfire and Prescribed Burn Emissions Estimates
 - Biogenics and On-Road Mobile Unchanged
 - BEIGIS data sets
- ❖ Day-Specific Flare Emissions Estimates for Phillips/Conoco for June 2000

Area Source NO_x (1600 01-Aug-2000) kg/hr

18-December-2002

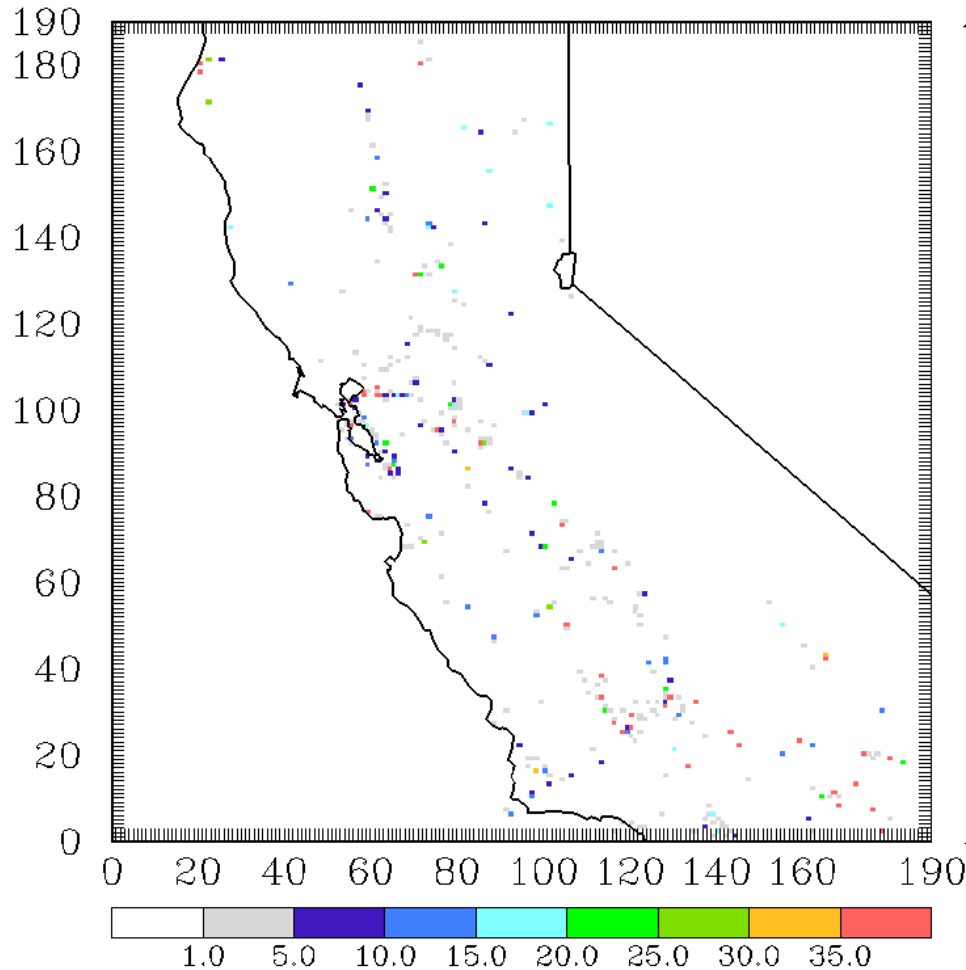


21-January-2003

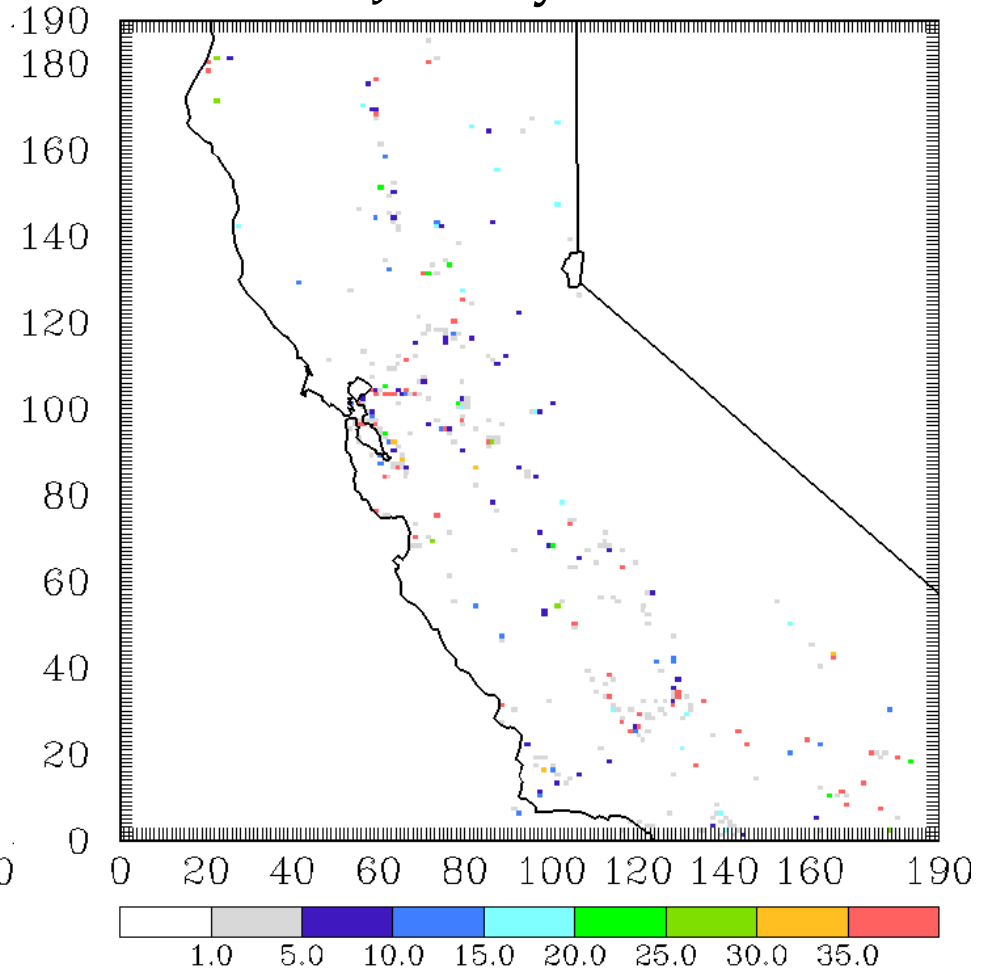


Point Source NO_x (1600 01-Aug-2000) kg/hr

18-December-2002



21-January-2003





Comparison Of Domain Emissions Totals (tons/day)

Source	CO		NOX		PM		SOX		TOG	
	Dec-2002	Jan-2003	Dec-2002	Jan-2003	Dec-2002	Jan-2003	Dec-2002	Jan-2003	Dec-2002	Jan-2003
EGU	17	96	16	57	3	8	3	4	26	34
Other Point	129	147	161	194	48	50	75	96	431	463
Area	633	490	267	193	2,527	2,326	26	13	2,352	2,447
Off-road	3,981	2,474	551	631	48	44	161	24	665	315
On-road	8,832	8,832	1,413	1,413			10	10	764	764
Total	13,592	12,039	2,408	2,488	2,626	2,428	275	147	4,238	4,123

EMS-95 vs. CEFS Emissions Comparison For BAAQMD (tons/day)

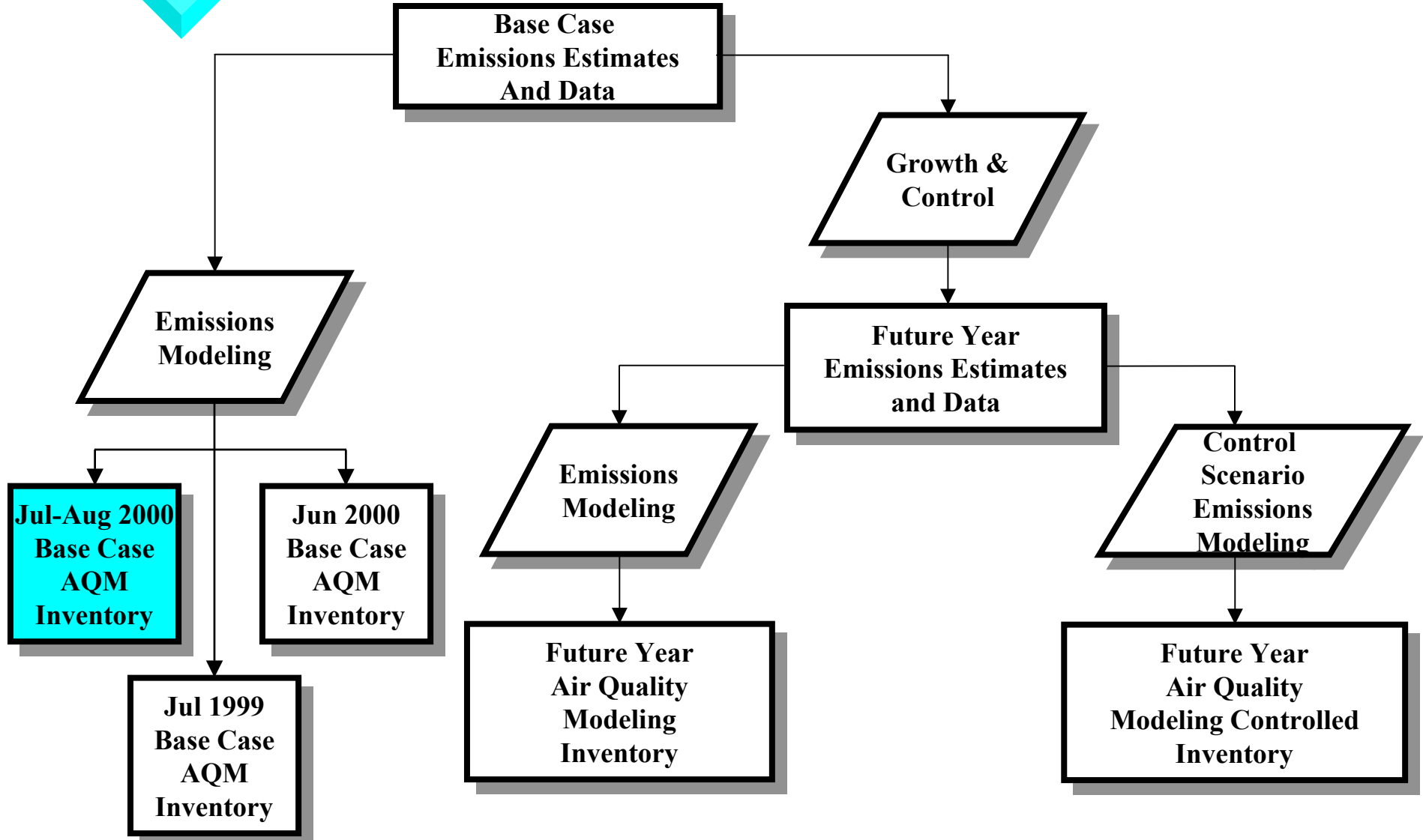
Source	CO			NOX			PM			SOX			TOG		
	CEFS	EMS Dec-02	EMS Jan-03	CEFS	EMS Dec-02	EMS Jan-03	CEFS	EMS Dec-02	EMS Jan-03	CEFS	EMS Dec-02	EMS Jan-03	CEFS	EMS Dec-02	EMS Jan-03
EGU	7	3	17	14	2	23	1	2	3	1	0	1	0	15	17
Other	130	15	26	79	38	60	27	9	11	54	43	63	615	331	361
Area	168	175	20	23	41	17	272	265	351	1	3	0	162	448	390
Off-road		1,071	950		162	213		15	15		23	9		179	115
On-road	2,669	2,059	2,059	512	338	338	24			29	3	3	340	228	228
Total	2,874	3,323	3,072	628	581	651	324	291	380	85	72	76	1,117	1,201	1,111



Problems Fixed & New Problems

- ❖ Fixed: low nighttime area source emissions
- ❖ Fixed: missing day-specific emissions estimates
- ❖ Fixed: day-specific refinery emissions in; however, emissions from two refineries (Vallerjo & Tesoro) not matched to current inventory (emissions are low)
- ❖ Investigating: comparison of CEFS/EMS-95 emissions estimates (appears to be related to inclusion of day-specific data)
- ❖ On-Going: biogenic NO and commercial marine emissions
- ❖ No Progress: on-road mobile source (ARB has asked AG to help on this issue)

Current Standing





Next ARB Updates

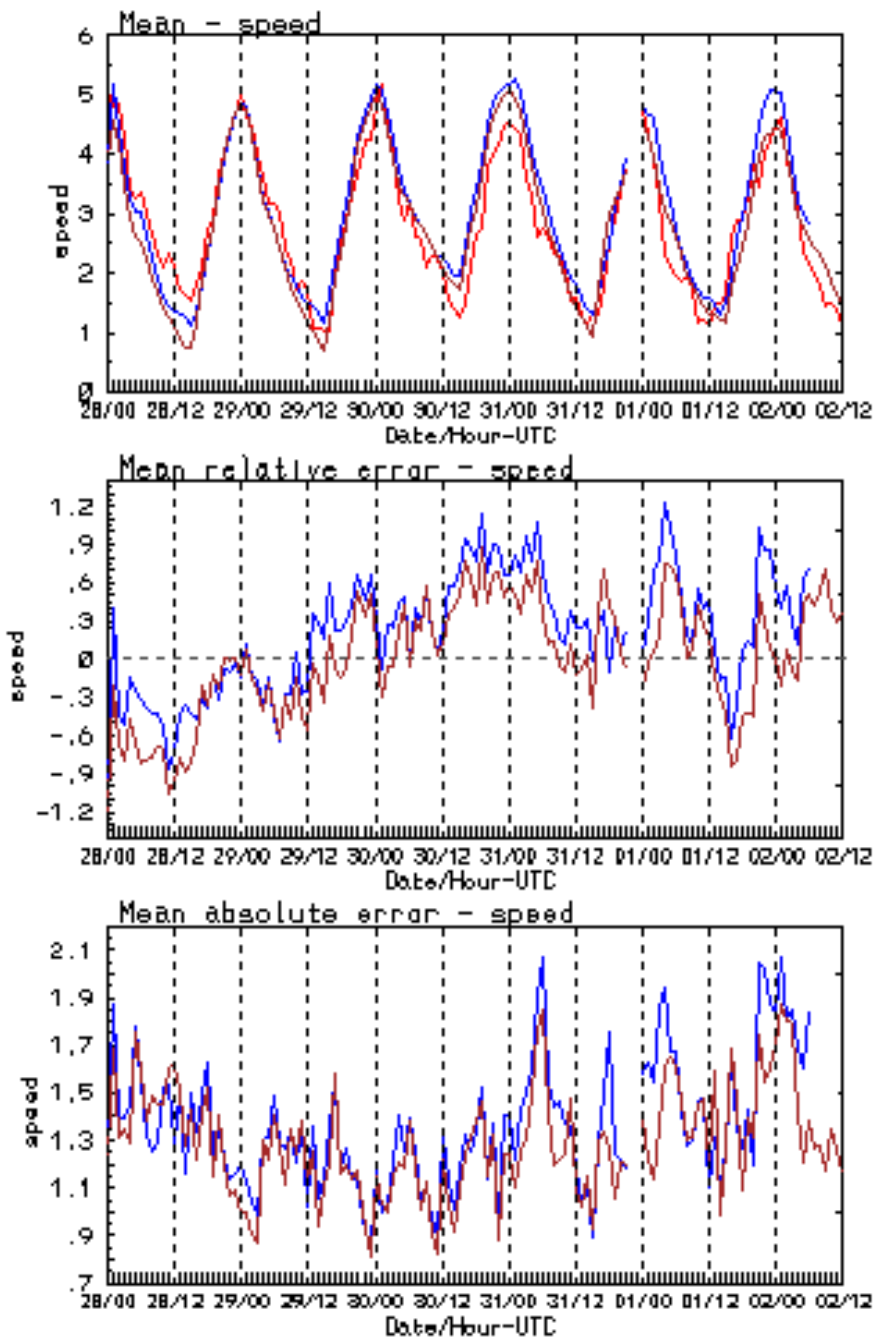
- ❖ New stationary source emissions data by end of month (impact SJV)
- ❖ New on-road mobile source emissions estimates possibly by end of month

small domain

125 – 120W

35 – 40 N

— rams50-wet — rams50-dry30

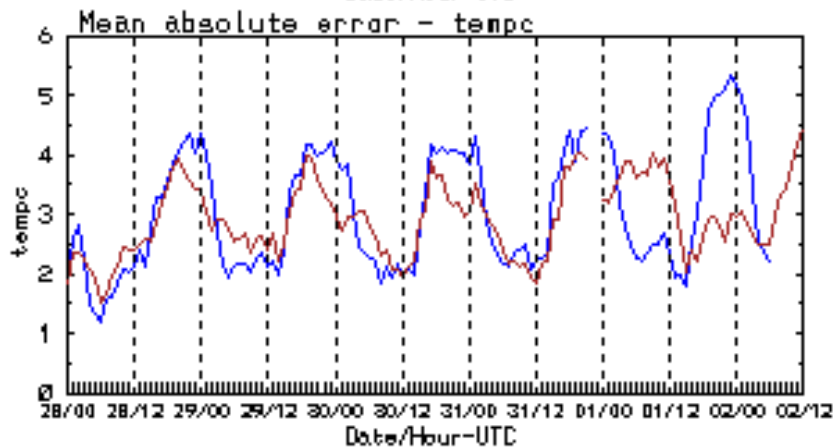
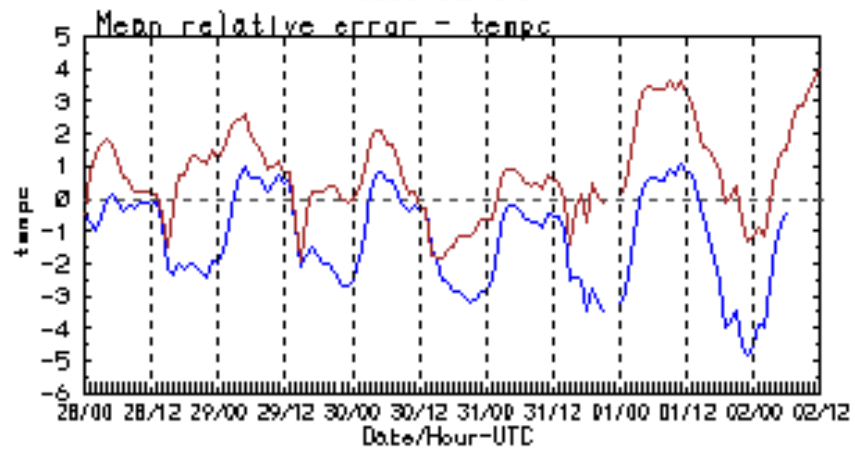
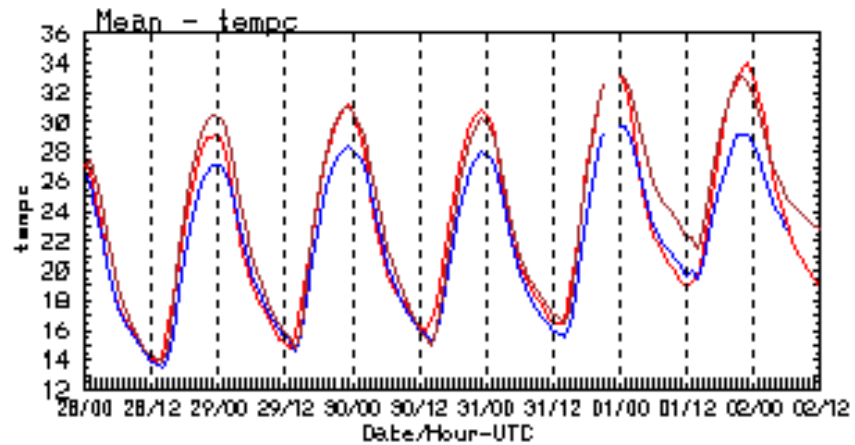


small domain

125 – 120W

35 – 40 N

— rama50-wet — rama50-dry30

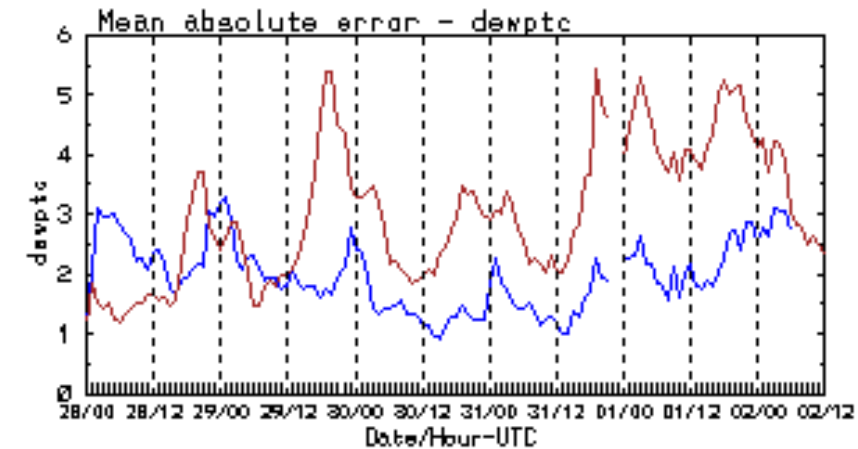
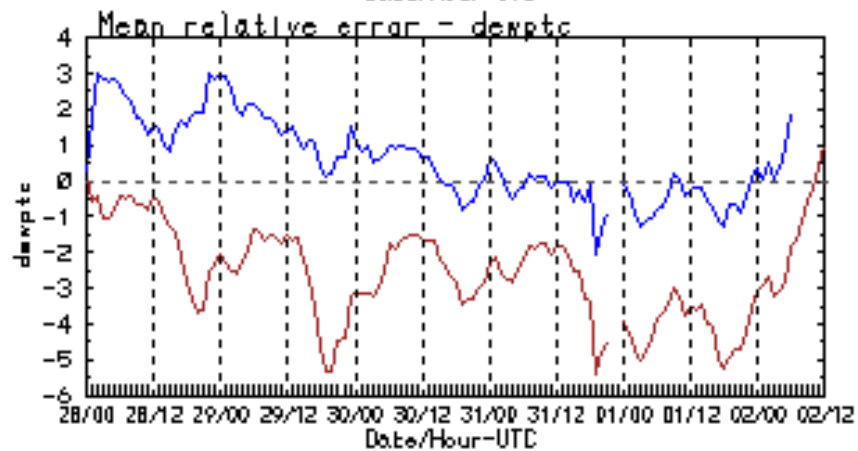
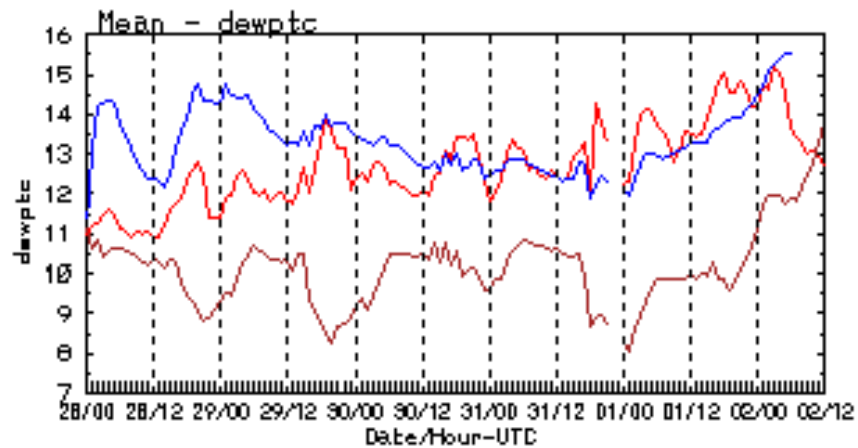


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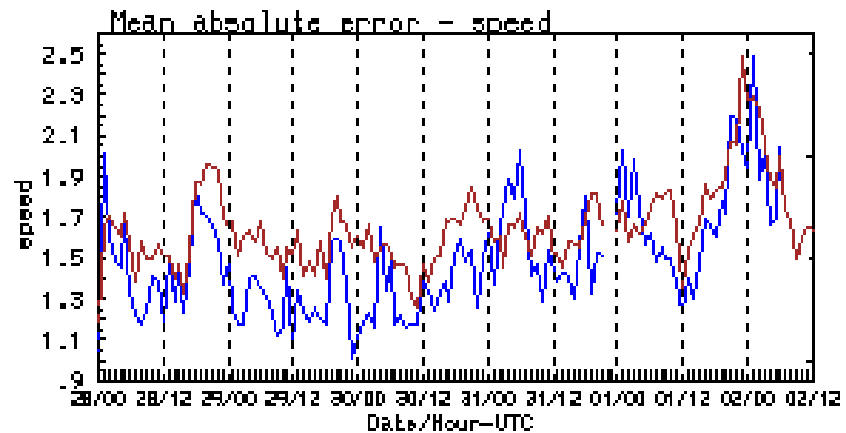
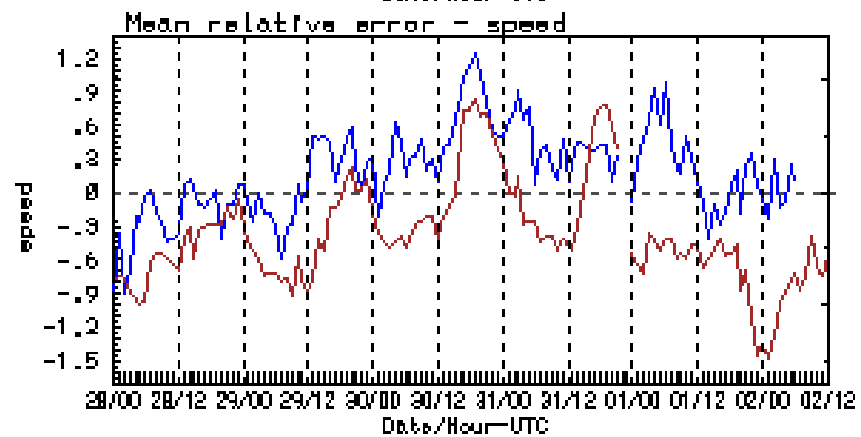
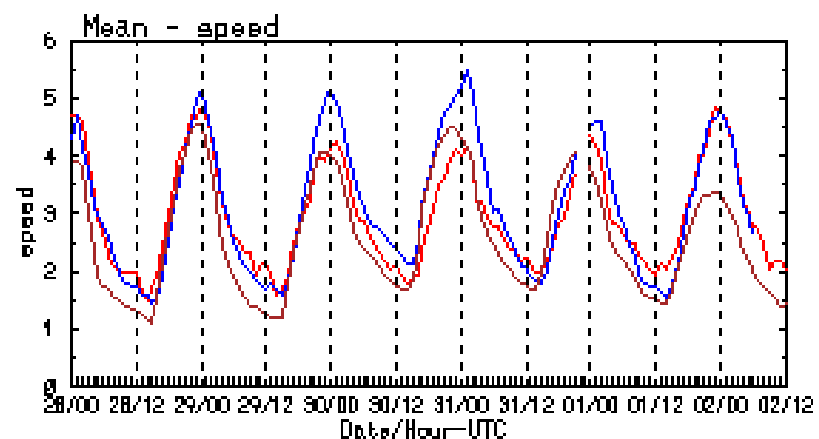


big domain

125 – 110W

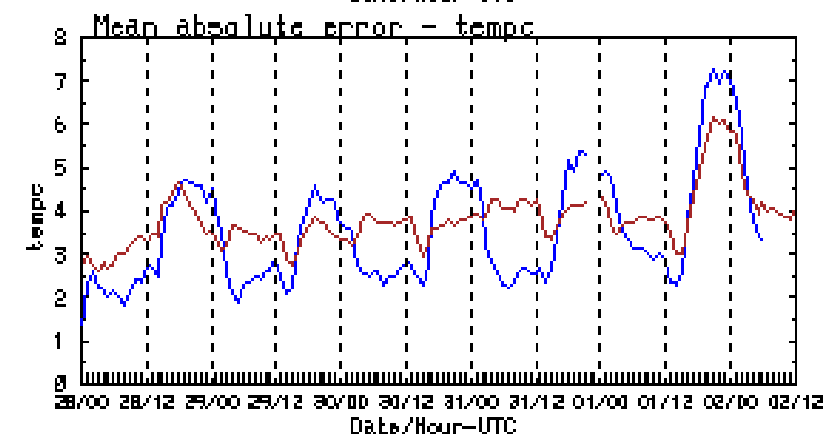
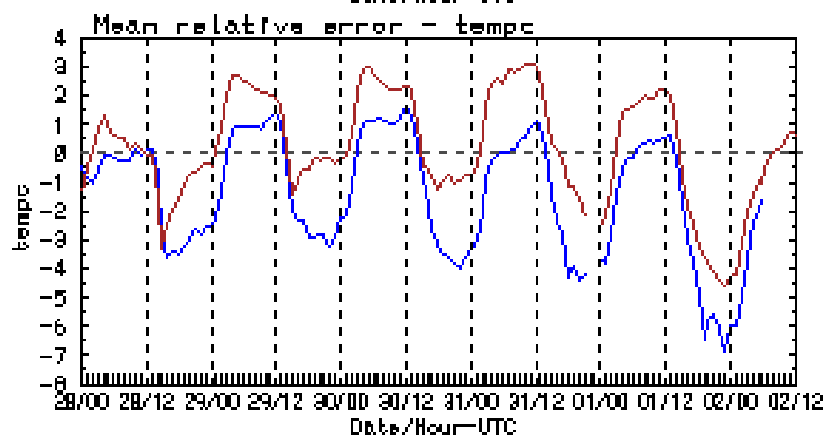
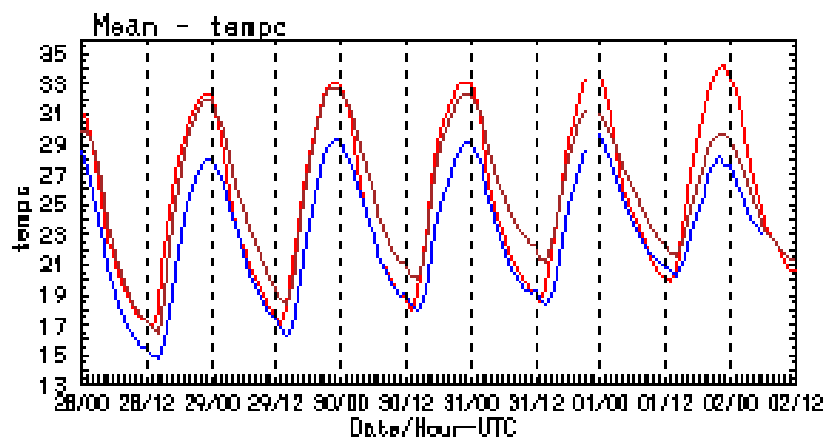
30 – 45 N

— rama50-wet — rama50-dry30



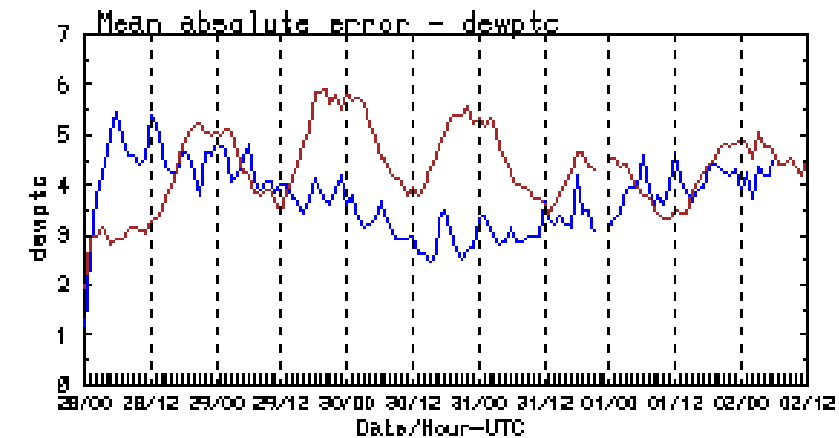
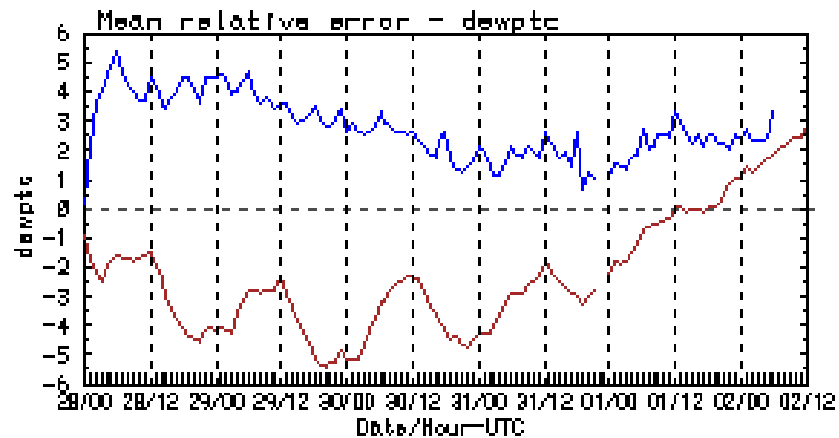
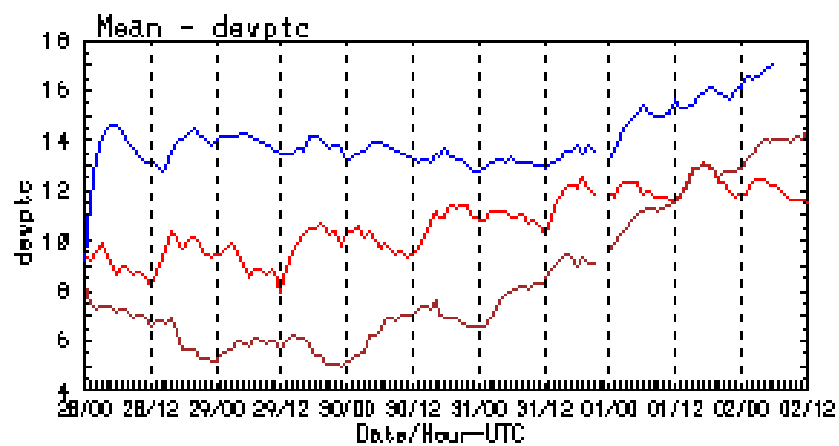
big domain
125 – 110W
30 – 45 N

— rama50-wet — rama50-dry30

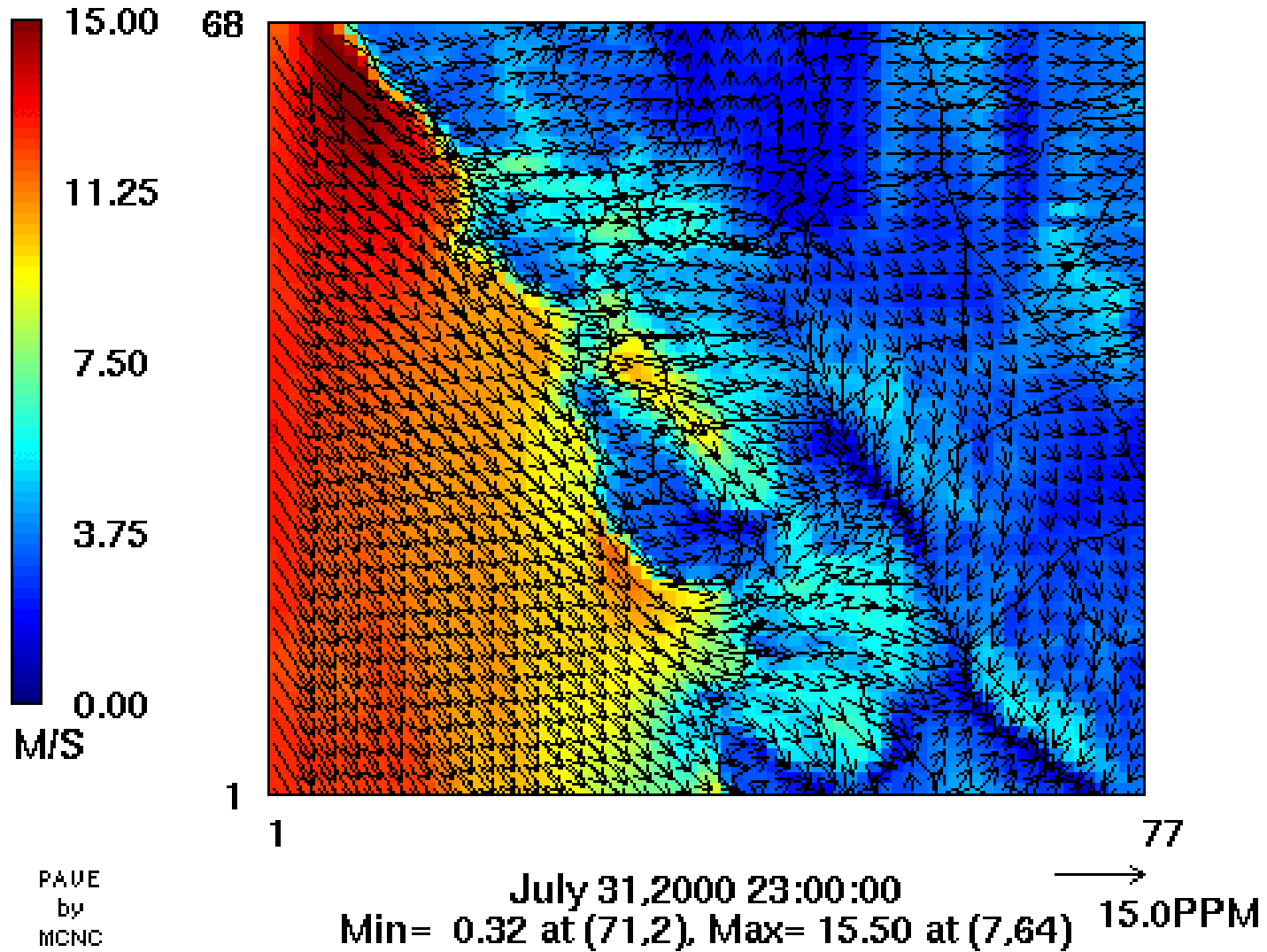


big domain
125 – 110W
30 – 45 N

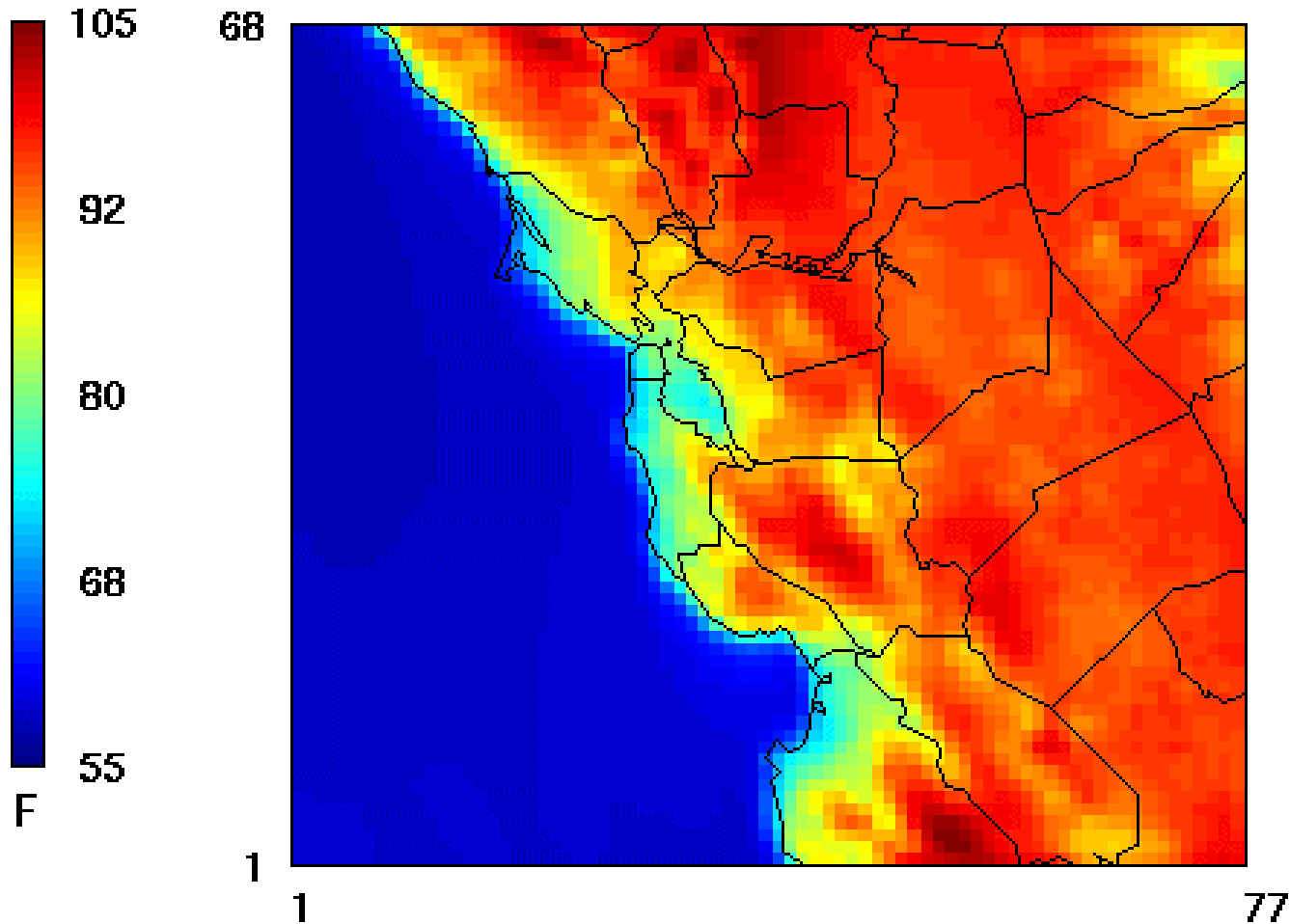
— rama50-wet — rama50-dry30



Layer 1 WINDS



Layer 1 Temperature



PAVE
by
MCNC

July 31, 2000 23:00:00
Min= 58 at (5,49), Max= 105 at (54,3)

PBL Depths

