

Figure 1. Stations available in ROMAN in the western United States. RAWS stations- triangles; other stations- plus symbols.

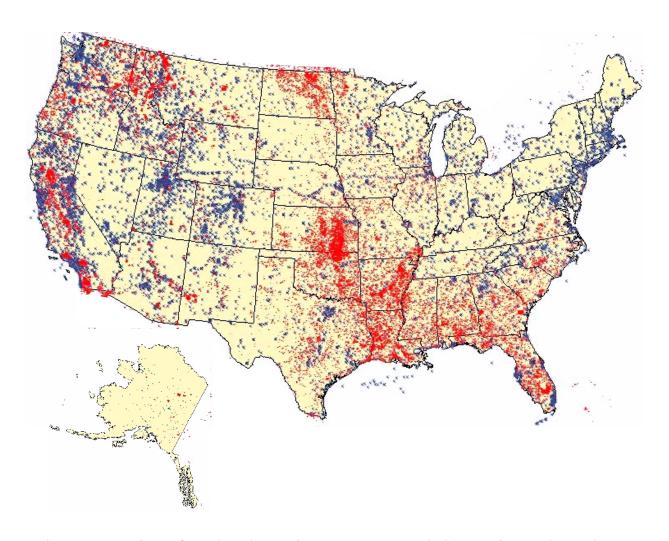


Figure 2. Locations of weather observations (grey cross symbols) superimposed upon locations of fires (red in color image/light grey in monochrome image) detected by MODIS satellites during 2003.

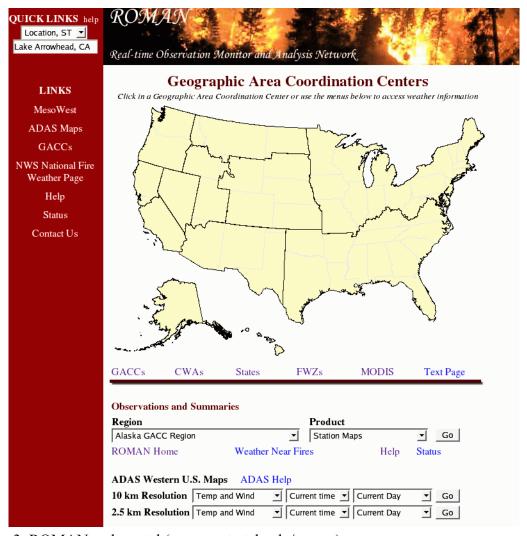


Figure 3. ROMAN web portal (www.met.utah.edu/roman).



Figure 4. Fire weather information around the United States is organized spatially in ROMAN in several different ways: a) Geographic Area Coordination Centers; b) states; c) National Weather Service County Warning Areas; d) National Weather Service Fire Weather Zones; e) MODIS active fire map geographic domains.

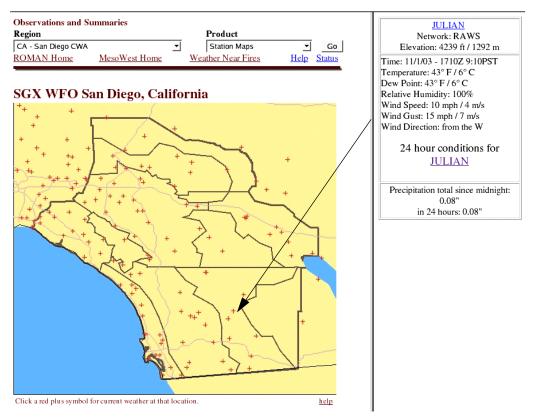


Figure 5. CWA interface for the San Diego WFO. The plus symbols are links to weather information (in this instance Julian, CA was chosen). CWA tabular summaries are subdivided into the forecast zones delineated by gray lines.

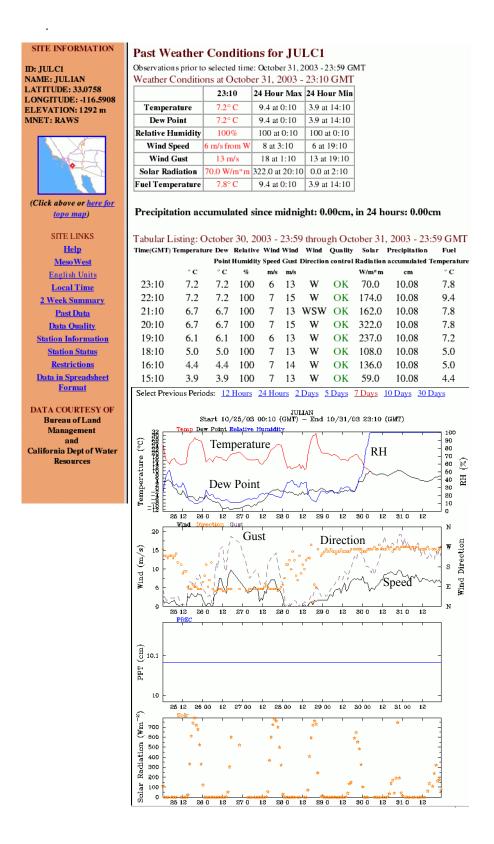


Figure 6. Tabular and time series station displays for Julian CA during the Cedar fire.

Table 1. Weather summary for fire weather zone SGX258 in the San Diego CA CWA. English units are used; see text for details.

Settings: All Networks											_						
Time: 12 :00 UTC	10 / 26	/ 2003											hange	Time			
As of: 12:00 UTC 10/26/2	2003		Sort	by ele	vatio	<u>n</u>	<u>Help</u>			QC I	lag: O	k, Ca	ution,	Susp	ect		
SGX258																	
		Time	e			Curi	rent			24 Hour					Precipitation		
Station	Elev	LOCAL	UTC	ТЕМР	RH	WIND	DRCT	PKWND	MAX T	MIN T	MAX RH	MIN RH	MAX G		3 HR	6 пр	24 111
CAMERON FIRE STA	3442 ft	0400PST	1200	69	6	10	NE	28	86	44	33	4	29	0	0	0	0
CAMPO (AWRS)		0350PST		66	10	16	NNE	-	84	46	42	6	40	-	-	-	-
CNF30 PORTABLE	3399 ft	0320PST	1120	60	11	2	NE	10	81	58	13	4	21	0	0	0	0
<u>DESCANSO</u>	3481 ft	0330PST	1130	67	7	14	NE	27	92	51	28	3	27	0	0	0	0
<u>JULIAN</u>	4239 ft	0310PST	1110	64	14	17	Е	35	84	57	36	10	35	0	0	0	0
MT. LAGUNA	5761 ft	0400PST	1200	55	10	8	NNE	21	76	42	44	7	25	0	0	0	0
OAK GROVE	2753 ft	0400PST	1200	69	8	6	Е	16	94	54	24	3	23	0	0	0	0
PINE HILLS	3599 ft	0310PST	1110	66	25	9	Е	18	96	52	27	25	18	0	0	0	0
RANCHITA	4180 ft	0310PST	1110	58	17	5	ENE	8	81	58	18	11	22	0	0	0	0

Table 2. Observations in the vicinity of geographic place names can be determined. In this instance, Lake Arrowhead, CA was selected at 19:00 UTC 1 Nov. 2003. English units are used; see text for details

Lake Arrowhead CA: Latitude 34.24833 N Longitude -117.1883 W (Placename location provided by: TopoZone) 24-Hour Trend Monitor Settings: 2 -h Summary RAWS ▼ 25 mi Radius Change Settings 24-Hour Changes 18:59 UTC 11/01/2003 OC Flag: Ok, Caution, Suspect Sort by: name or elevation Help Spd Dist/Dir RH Station Info Time Temp DewT Dir Gust 1815Z 10:15PST 33/- 13 31/+9 93/+ 55 SSW/E 12/+ 1 BPFC1 5/+1RAWS 11 mi ENE 99/ BIG PINE FLAT 32/ 6860 ft 1715Z 9:15PST 32/ SSW/ 4/ 9/ DVOC1 1810Z 10:10PST 100/+ 22 SSE / S 11/-6 RAWS 58/+ 5 58/+ 12 5/-6 12 mi W DEVORE 2080 ft 1710Z 9:10PST 56/+ 6 56/+ 14 100/+ 26 SE/S 6/-3 9/-8 50/+ 15 W/S MMKC1 RAWS 1820Z 10:20PST 56/- 3 79/+ 39 4/+ 0 8/- 2 14 mi SE MILL CREEK (BD 1720Z 9:20PST 54/ 51/ 89/ ESE/ 7/ 1820Z 10:20PST 43/+039/+ 12 87/+ 34 W/W 13/+023/- 2 CVEC1 RAWS 16 mi ESE CONVERSE 5617 ft 1720Z 9:20PST 38/ 38/ 100/ W/ 11/ 23/ SSW / SSW 13/-3 FWSC1 RAWS 1820Z 10:20PST 33/-3 31/+ 10 91/+ 38 5/-3 17 mi E FAWNSKIN 6900 ft 1720Z 9:20PST 33/ 93/ S/ 4/ 12/ 31/ LTLC1 1820Z 10:20PST 52/+ 1 52/+ 14 99/+ 38 S/NE 0/- 2 5/- 8 RAWS 17 mi W LYTLE CREEK 2792 ft 1720Z 9:20PST 49/ 49/ 100/ ESE/ 0/ 4/ MNCC1 1820Z 10:20PST 52/+641/+665/+1W/E6/-4 13/- 10 RAWS 19 mi WNW MORMON ROCK 1720Z 9:20PST 53/ 43/ 6/ 10/ 3301 ft 69/ E/ 5/- 28 41/-4 W/SW 2/- 22 GNTC1 RAWS 1830Z 10:30PST 41/+ 17 100/+ 57 22 mi NNE GRANITE MOUNTA 1730Z 9:30PST WSW/ 4721 ft 40/ 40/ 100/ 0/ 5/

Table 3. Fire Weather Monitor display for 1200 UTC 26 October, 2003. All stations in the San Diego CWA that have reported sustained winds in excess of 30 mph (13 m s^{-1}) and relative humidity below 25% during the past 6 h are shown.

Historic Fire Weathe	er Monito	r for CA - S	San Die	go CV	VA (click <u>h</u>	ere to reset to
Settings: 6 -h Summary All N	Networks 🛨	CA - San Diego C	WA		▼	
Thresholds: $\frac{\text{Wind}}{\text{mph}} > \frac{\text{Gust}}{30 \text{ mph}}$	mph	RH <= RH >= 25 %	Precip/6 hrs		AND Ch OR	ange Values
Time: 12 :00 UTC 10 / 2	26 / 2003				Ch	ange Time
As of: 12:00 UTC 10/26/2003	<u>He</u>	<u>elp</u>	QC Flag:	Ok, Cau	tion, Suspec	t
Station	Info	Time	Gusts		Weather	
BNTC1 BEAUMONT	RAWS 2680 ft	0810Z 1:10PST	31	7		
CZZ CAMPO (AWRS)	NWS/FAA 2631 ft	1050Z 2:50PST	40	10		
ECSC1 EL CARISO	RAWS 3038 ft	1000Z 2:00PST	32	9		
FRCC1 FREMONT CANYON	RAWS 1781 ft	1130Z 3:30PST	31	6		
GOSC1 GOOSE VALLEY	RAWS 1529 ft	1055Z 2:55PST	30	7		
JULC1 JULIAN	RAWS 4239 ft	1110Z 3:10PST	35	14		
VLCC1 VALLEY CENTER	RAWS 1371 ft	1010Z 2:10PST	40	5		

Table 4. Maximum/minimum temperature summary for county warning area zone CA058 (San Diego Mountains) preceding the onset of the Cedar fire. Temperature in $^{\rm o}F$.

Maximum and Minimum	Temperature fo	r C	A -	San	Di	ego	CV	VA						
Variable Location		Netwo	ork		Da	ate								
Temperature CA - San Diego CWA	<u> </u>	NWS	and R	AWS	▼ 25	5	1	Octobe	er j	₹ 20	003 🛨			
Sort by elevation	<u>Help</u>	Ok, Caution, Suspect												
		10-	-25	10-	-24	10-	-23 10-22			10-21				
CA058: San Diego County Mountains	Info	Max/	Min/	Max/	Min/	Max/	Min/	Max	Min/	Max/	Min/			
		Time	Time	Time	Time	Time	Time	Time	Time	Time	Time			
CMNC1	RAWS	86	44	90	47	95	46	96	50	96	48			
CAMERON FIRE STATIO	3442 ft	1200	0700	1400	0400	1200	0700	1200	0600	1400	0700			
<u>CZZ</u>	NWS/FAA	86	42	91	48	91	46	95	48	95	48			
CAMPO (AWRS)	2631 ft					1150		1350						
TR119		81	59	84	59	82	62	86	63	88	63			
CNF30 PORTABLE	3399 ft			1320										
DENC1	RAWS	92	27	92	٠.	94	53	97		96	56			
DESCANSO	3481 ft			1430										
JULC1	RAWS	١٠.	56	88		88	60	92	F .	92	56			
JULIAN	4239 ft			1410										
MLGC1	RAWS		41	81		83	43	84	46	85	46			
MT. LAGUNA	5761 ft			1500										
OGVC1	RAWS	94	53	98		97	56	100	56		58			
OAK GROVE	2753 ft			1200										
PIHC1	RAWS	96	51	97		98	53	102	55	103	56			
PINE HILLS	3599 ft			1310										
RCHC1	RAWS	81	59	85	-	89	63	90	00	89	68			
RANCHITA	4180 ft			1510										
Average		86	48	90	52	91	54	94	55	94	55			

Table 5. Precipitation (in) monitor and precipitation summary for the San Diego CWA valid at 1900 UTC 1 Nov. 2003.

Location		Network		Date				Hour(UT	TC)	Location		Networ	k	Date					our(U'	_ ′		
CA - San Diego CWA		▼ RAWS	•	Currer	nt 🛨	Novemb	er 🔻	2003 19:00	Change S	CA - San Diego CWA		RAWS		<u>▼</u> Curr	ent 🛨 🛭	lovember	₹ 200	03 🛨 1	9:00 🛨	C	Chang	
Last updated 19:31 UTC 11	1/2003				S	ort by e	levation	He	:lp	Valid 10/2/2003 19:00 through 1	Valid 10/2/2003 19:00 through 11/1/2003 19			Sort by elec				vation Help				
CA042: Orange County C	oastal Areas											P	recipitat	ion tota	l in the p	ast:	D	ays sinc	e daily	total (of:	
Station	Info	Time	1 HR	3 HR	6 HR	12 HR	24 HR	Since Midnight	Since 1300L	CA042: Orange County Coast	al Areas	,					,			,		
CAPC1	RAWS	1830Z 10:30PST	0	0	0.05	0.62	0.63	0.55	0.63	Station	Info	2 days	5 days	7 days	10 days	30 days	0.01"	0.10"	0.25"	0.50"	1.0	
BELL CANYON	699 ft	1030Z 10:30F31	U	U	0.03	0.02	0.03	0.55	0.03	CAPC1	RAWS	0.63	0.68	0.68	0.68	0.68	0	0	0	0	20	
FRCC1	RAWS	1830Z 10:30PST	0.01	0.01	0.01	0.24	0.24	0.15	0.24	BELL CANYON			0100	0100	0100	0100	-	_		-	1	
FREMONT CANYON	1781 ft	10302 10301 51	0.01	0.01	0.01	0.21	0.21	0.15	0.21	FRCC1 FREMONT CANYON	RAWS 1781 ft	0.24	0.24	0.24	0.24	0.24	0	0	182	201	20	
arena a pr										FREMONI CANTON	170111											
CA043: San Diego County		Time	1 110	2 110	c IID	12 110	24 110	C: 101111	C: 1200T	CA043: San Diego County Co	actal Areac											
Station	Info	I me	1 HK	3 HK	о нк	12 HK	24 HK	Since Midnight	Since 1300L	Station State of the state of t	Info	2 days	5 days	7 days	10 days	30 days	0.01"	0 10"	0.25"	0.50"	1 0	
LSFC1 LSF LAS FLORES	RAWS 98 ft	1840Z 10:40PST	0	0	0.09	0.12	0.12	0.12	0.12	LSFC1	RAWS					-				_	+	
LSI LASTLORES	7011									LSF LAS FLORES	98 ft	0.13	0.21	0.21	0.21	0.21	0	0	316	316	31	
CA048: San Bernardino a	nd Riverside	County Valleys	The I	nland	Emni	·e															_	
Station	Info	Time					24 HR	Since Midnight	Since 1300L	CA048: San Bernardino and I	Riverside Co	unty Va	lleys -Tł	ne Inlan	d Empire	è						
BNTC1	RAWS									Station	Info	2 days	5 days	7 days	10 days	30 days	0.01"	0.10"	0.25"	0.50"	1.0	
BEAUMONT	2680 ft	1910Z 11:10PST	0	0.05	0.08	0.20	0.20	0.20	0.20	BNTC1	RAWS	0.22	0.22	0.22	0.22	0.22	0	0	_		Τ.	
CLHC1	RAWS	1910Z 11:10PST	0	0	0.04	0.11	0.11	0.11	0.11	BEAUMONT	2680 ft	0.22	0.22	0.22	0.22	0.22	U	U	_		L	
CLARK	1719 ft	1910Z 11:10PS1	U	0	0.04	0.11	0.11	0.11	0.11	CLHC1	RAWS	0.11 0.	0.11	0.11	0.11	0.11	0	0	182	201	20	
CNAC1	RAWS	1850Z 10:50PST	0	0	0.01	0.28	0.28	0.26	0.28	CLARK	1719 ft						_	ļ.	102	201	1	
CORONA	640 ft	16502 16501 51			0.01	0.20	0.20	0.20	0.20	CNAC1 CORONA	RAWS 640 ft	0.28	0.28	0.28	0.28	0.28	0	0	0	201	20	
	RAWS	1820Z 10:20PST	0	0.09	0.13	0.15	0.15	0.15	0.15	CNSC1							-			-	+	
	1949 ft			-						CRANSTON	RAWS 1949 ft	0.15	0.15	0.15	0.15	0.15	0	0	201	201	20	
CRANSTON		1910Z 11:10PST	0	0	0.01	0.31	0.34	0.29	0.34	DVOC1	RAWS	-					-	-		-	+	
CRANSTON DVOC1	RAWS			-	-		-			DEVORE	2080 ft	0.34	0.34	0.34	0.34	0.41	0	0	0	182	18	
CRANSTON DVOC1 DEVORE	2080 ft				0.03	0.19	0.20	0.16	0.20	TSCC1	RAWS						<u> </u>				1	
CRANSTON DVOC1 DEVORE TSCC1	2080 ft RAWS	1900Z 11:00PST	0	0	0.05					TEMESCAL (CNF)	1125 ft	0.20	0.20	0.20	0.20	0.20	0	0	182	201	20	
CRANSTON DVOC1 DEVORE TSCC1 TEMESCAL (CNF)	2080 ft	1900Z 11:00PST	_			0.31	0.34	0.29	0.34	TEMESCAL (CNF)	112311									1		
CRANSTON DVOC1 DEVORE TSCC1 TEMESCAL (CNF) MAXIMUM	2080 ft RAWS 1125 ft	-	0	0.09	0.13		0.34	0.29	0.34	MAXIMUM	-	0.34	0.34	0.34	0.34	0.41					_	
CNSCI CRANSTON DVOCI DEVORE TSCC1 TEMESCAL (CNF) MAXIMUM ZONE AVERAGE MINIMUM	2080 ft RAWS 1125 ft	1900Z 11:00PST	_	0.09		0.31 0.21 0.11	0.34 0.21 0.11	0.29 0.19 0.11	0.34 0.21 0.11			0.34	0.34	0.34	0.34	0.41						

Weather Near Fires



Click on a GACC name below to see a map of active fires

<u>Alaska</u>	No Fires 💌	submit
Pacific Northwest	No Fires <u>▼</u>	submit
Northern California	Ord (Contained)	submit
Southern California	CEDAR <u>•</u>	submit
Western Great Basin	No Fires <u>▼</u>	submit
Eastern Great Basin	Swift_Creek_WFU (Contained)	submit
Northern Rockies	No Fires <u>▼</u>	submit
Rocky Mountain	Cherokee_Ranch (Contained)	submit
Southwest	SKI_RUN _	submit
<u>Eastern</u>	No Fires 🔻	submit
Southern	PHINNEY_HILL <u></u>	submit

Figure 7. ROMAN Weather Near Fires entry page.

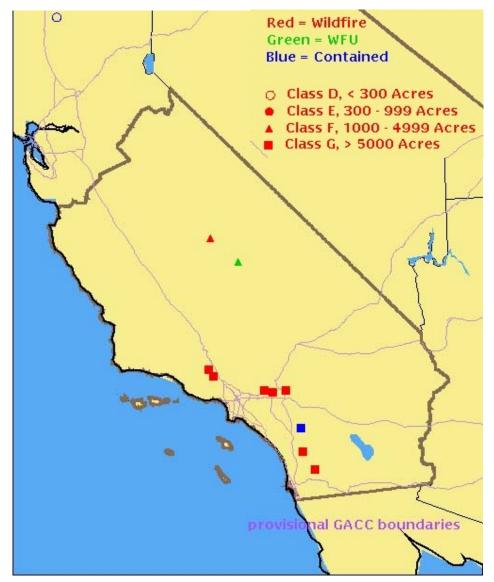


Figure 8. Locations of major fires on 1 Nov. 2003 for the southern California GACC.

Table 6. Weather in the vicinity of the Cedar fire. The total acreage refers to the final estimate rather than the size of the fire at 1200 UTC 26 October.

CEDAR Fire: Latitude 32.986 Longitude -116.728 280278 acres (Fire location provided by: TopoZone) Historic 24-Hour Trend Monitor (click here to reset to current time)														
Settings: 2 -h Summary RAWS														
Time: 12 :00 UTC 10 / 26 / 2003 Change Time														
24-Hour Changes 12:00 UTC 10/26/2003 Sort by: name or elevation Help QC Flag: Ok, Caution,														
Station	Info	Dist/Dir	Time	Temp	DewT	RH	Dir	Spd	Gust					
PIHC1	RAWS	(LENE	1110Z 3:10PST	66/+ 15	29/+ 12	25/- 1	E/SE	9/+ 8	18/+ 12					
PINE HILLS	3599 ft	6 mi ENE	1010Z 2:10PST	61/	25/	25/	N/	4/	17/					
GOSC1	RAWS		1155Z 3:55PST	77/+ 28	5/- 22	6/- 36	ENE/S	15/+ 15	26/+ 26					
GOOSE VALLEY	1529 ft	9 mi NW	1055Z 2:55PST	77/+ 27	8/- 20	7/- 35	ENE/N	13/+ 13	30/+ 30					
JULC1	RAWS	10 1115	1110Z 3:10PST	64/+ 8	14/- 12	14/- 17	E/S	17/+ 17	35/+ 34					
JULIAN	4239 ft	10 mi NE	1010Z 2:10PST	64/	17/	16/	E/	17/	34/					
ANEC1	RAWS		1150Z 3:50PST	75/+ 13	3/- 18	6/- 15	ENE / SE	9/+ 9	28/+ 20					
ALPINE	2041 ft	11 mi S	1050Z 2:50PST	75/+ 11	7/- 17	7/- 14	NE/ENE	7/+ 6	20/+ 12					
DENC1	RAWS		1130Z 3:30PST	67/+ 40	1/- 26	7/- 91	NE / NW	14/+ 14	27/+ 27					
DESCANSO	3481 ft	11 mi SE	1030Z 2:30PST	68/+ 15	5/- 13	8/- 16	NNE / WSW	7/+ 7	22/+ 18					
MLGC1	RAWS		1200Z 4:00PST	55/+ 13	-1/- 22	10/- 34	NNE/NNE	8/+ 8	21/+ 21					
MT. LAGUNA	5761 ft	19 mi ESE	1100Z 3:00PST	57/+ 16	1/- 19	10/- 33	WSW/NE	5/+ 5	21/+ 21					
RCHC1	RAWS		1110Z 3:10PST	58/- 5	13/- 8	17/- 3	ENE/N	5/+ 1	8/+ 2					
RANCHITA	4180 ft	20 mi NE	1010Z 2:10PST	58/	15/	18/	E/	4/	8/					
VLCC1	RAWS		1110Z 3:10PST	78/+ 28	9/- 27	7/- 52	SSE / N	3/+ 3	28/+ 26					
VALLEY CENTER	1371 ft	23 mi NW	1010Z 2:10PST	82/	4/	5/	NNE/	13/	40/					
CMNC1	RAWS		1200Z 4:00PST	69/+ 23	-1/- 17	6/- 24	NE/S	10/+ 10	28/+ 24					
CAMERON FIRE S	3442 ft	24 mi SE	1100Z 3:00PST	68/+ 19	-2/- 19	6/- 22	NE/S	14/+ 14	29/+ 25					
NS086	RAWS		1150Z 3:50PST	84/+ 28	10/- 46	6/- 92	NE/N	10/+ 8	17/+ 13					
SAN MIGUEL	463 ft	25 mi SSW	1050Z 2:50PST	74/+ 18	25/- 30	16/- 82	NNE/SSW	2/- 1	6/+ 2					

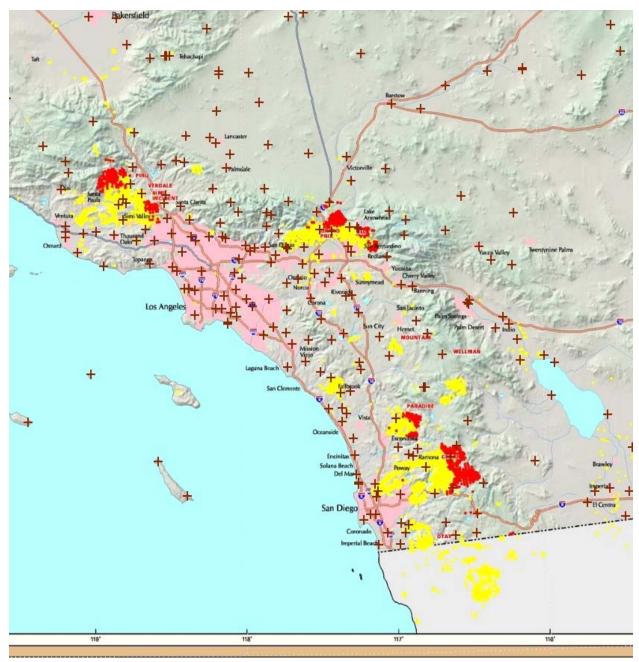


Figure 9. ROMAN MODIS interface. Superposition of ROMAN station locations (plus symbols) upon MODIS active fire map on 29 October 2003. Light shading denotes previously burned areas while dark shading denotes areas burning within the past 24 hours. The ROMAN MODIS interface allows access to station information and current weather information by selecting one of the plus symbols.

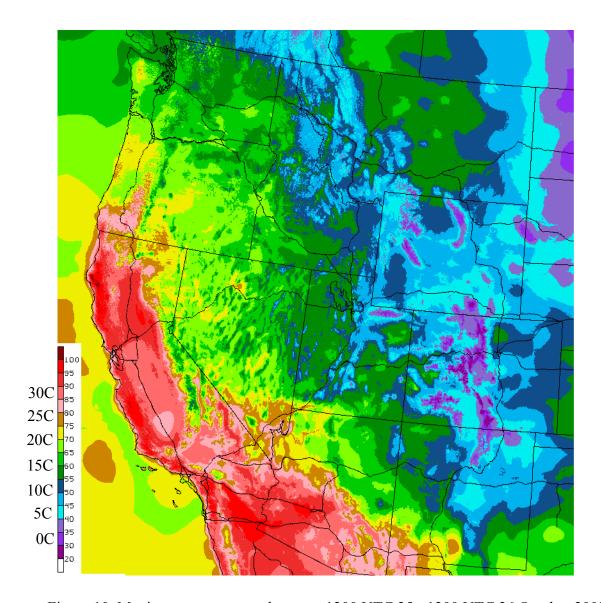


Figure 10. Maximum temperature between 1200 UTC 25 - 1200 UTC 26 October 2003 based on hourly ADAS 2.5 km analyses. Temperature plotted according to the scale at the left.