## Debris Flow-2007/2008 Event Log IOP-5

Lat: 33.94933 N Lon: -118.44217 W Alt: 43 m Truck HD: 100 deg Date/Time SR1 ready for operation: <u>23 January 2008 1220 UTC</u>

Note taker: Ken Howard (NSSL)

Time	Event
(UTC)	A : 1 · · · · · · · · · · · · · · · · · ·
1220	Arrived on site, leveled truck and got all systems up OK
1255	Began data collection. Scatter showers NW of burn areas. Forecast timing of
	precip bands/fetch impacting debris flow areas highly questionable as system is
	nearly stationary and most of the heavy precip action slightly northeast inland and
1400	offshore. Flash flood watch for burn areas.
1400	No change. Full moon mid level strata CU deck overhead
1500	No change.
1600	Activity appears to be moving further west.
1645	Sea clutter becoming more widespread
1754	Small water spout directly west <1km from shore
1758	Regional radar comp analysis loops shows activity becoming more consolidated
	with possible next impulse. However, areas of heaviest precipitation remain well
	northwest of burn areas of interest.
1819	Off shore convective bands now moving closer to coast with increasing echo at
	mid levels over south facing slopes including burn areas.
1845	Onshore reflectivity increasing as larger mass moves closer to shore. Activity
	along south facing slopes continues to increase especially to the north of burn
10.70	areas.
1850	Low cu forming w,e,s while mid level deck continues to thicken w and n
1855	Sea clutter is becoming more predominate ahead of large convective offshore
	areas.
1905	Offshore winds have increased which in part explains the increased SC. CUs
	continues to increase vertically.
1920	Cloud depth increasing over burn areas. Malibu .01 last 6?
1940	BB becoming more pronounced
1950	Light moderate precipitation continuing to move inland with heaviest closer to
	shore since operations IOP began.
1955	GC removing too much over burn areas and coastal terrain.
2024	SPC MD - heavy snow is developing across the mountains of Santa
	Barbara/Ventura/northwestern Los Angeles/Southeastern San Luis Obispo/and
	southern Kern counties. Lowering snow levels and increasing snow
	ratespossibly in excess of 2 inches per hourare expected by 21-23z.
2030	Mod to heavy precip slightly west and south (over coast) of burn areas. BB
	pronounced
2040	Moderate showers continue to develop just south of burn areas in coastal region

2100	7:1,
2100	Light precip at radar.
2109	Quick lunch – Moderate reflectivity offshore expanding and moving east -
	Impressive
2145	Bright band well defined and decreasing in height.
2205	Call from FO asking if we can send velocity. Will check. Stated we (NSSL)
	archives all 3 moments. Requested info about sighting of water spout
2215	Light rain continues at radar
2225	Strong gust winds and moderate precip visibility rapidly dropping.
2230	Vis < 2k and dropping
2231	Circle X Ranch .08 last hour
2237	Intense solid line forming during the last hour with the apex pointed towards LA –
	again very impressive!
2249	SPC meso analysis centered on LAX possibly underplaying precip.
2230	NWS STF Moderate to locally heavy showers are beginning to push into Western
	Los Angeles county. At 215 pm pstNational Weather Service doppler weather
	radar indicated an area of moderate to heavy showers with embedded
	thunderstorms moving into western Los Angeles county from Malibu to Santa
	Monica and north into the San Fernando valley. Rainfall rates with generally be
	around 1/2 inch per hour with locally higher amounts to near one inch in and near
	thunderstorms.
2250	SMARTR and KVTX CREF compare relatively with the exception of SE towards
	LB. SMARTR shows clearly the convective areas along the coast and inland at
	LB. Need to look at SOX to see without SMARTR
2256	Impressive band of moderate reflectivity moving slowly NE towards LAX with
	north section impeding on coastal areas. The velocity field evolution is worth
	further examination with . Band of high reflectivity west of LA along terrain
	gradients.
2301	Velocity couplet directly west at 80km to 4 degrees
2310	Moderate rain at radar with strong winds G25 est. Vis 1 km
2320	Moderate showers over burn area as northern end of band intersects coast.
2338	Wind gust increasing with occasional moderate rain
2340	Circle X Ranch .32/hr ending at 2300 UTC
2358	BB thickness slight greater over ocean compared to inland – possibly a blockage
0000	over land.
0000	.3 at LAX and Santa Monica with .4 at Malibu in hour ending at 2300
0013	Moderate rain at radar vis 500m.
0021	Back edge of band defined in lower tilts with light scatter showers behind.
	Upslope still predominate signal inland. BB remain swell defined. Gust winds
	(<25) and moderate rainfall at radar
0027	One hour rainfall ending at 0000 Circle X Ranch .16; Malibu .07; Santa Monica
	.12; LAX .09; Long Beach .10. Inland amounts of note Beacon Hill .27; Van
	Nuys .14; Simi Valley .2
0035	Gust frequency increasing at Radar
0040	Intensification of activity over the Long Beach
0053	Rainfall at radar decreasing. Activity becoming more scatter west as band appears
	at them detitions. Hearing determine more beauter west as called appears

	married fully inland. A pain payth foring1 and 1in-t- and inint-
	moves fully inland. Again south facing upslope predominate precip orientation.
	BB more pronounced inland. Winds remain gusty but vis increasing.  FLASH FLOOD WARNING
	NATIONAL WEATHER SERVICE OXNARD CA
	446 PM PST WED JAN 23 2008
	THE NATIONAL WEATHER SERVICE IN OXNARD HAS ISSUED A * FLASH FLOOD WARNING FOR THE CORRAL AND CANYON BURN
	AREASEXTREME WEST CENTRAL LOS ANGELES COUNTY IN
	SOUTHWEST CALIFORNIA
	* UNTIL 745 PM PST
	* AT 439 PM PSTDOPPLER RADAR INDICATED HEAVY RAINFALL
	MOVING INTO THE MALIBU AREAINCLUDING CORRAL AND
	CANYON BURN AREAS. RAINFALL RATES WILL EXCEED ONE HALF
	INCH PER HOUR. THIS RAINFALL IS EXPECTED TO CAUSE FLASH
	FLOODING AND DEBRIS FLOWS IN THE BURN AREA.
0101	Rainfall increasing to moderate. Vis dropping.
0114	Los Angeles County Department of Public Works Water Resources Division 6h
	totals fit radar observations and evolution with gauges near burn areas .5 to 1+
	(map saved)
0120	Secondary minor band forming offshore with northern end impinging on and east
	of burn areas.
0130	Light rain with greatly improved vis – here come the jets Minor band along the
	coast. Winds continue to gust
0148	Activity decreasing west to east with decreasing activity over burn areas. Back
	edge well defined moving eastward.
0215	Back edge of precip band east of burn area. No other activity anticipate overnight
	for burn areas. Will continue operating until 0345 to encompass NWS FF warning
	for burn areas
0235	6 h totals ending 0200 UTC Lax .62; Malibu .57; Santa Monica .45; Cicle X ranch
00.45	1.35
0247	No changeactivity slowly moving east
0335	No changeactivity slowly moving east
0400	End IOP5