## Debris Flow-2007/2008 Event Log IOP-8

Lat: 33.94933 N Lon: -118.44217 W Alt: 43 m Truck HD: 100 deg Date/Time SR1 ready for operation: <u>3 Feb 2008 0700 UTC</u>

Note taker: Zac Flamig (CIMMS/NSSL) and JJ Gourley (NSSL)

Time (UTC)	Event
0700	Started IOP-8, echoes still west of burn area
0730	First echoes over burn area
0812	Rain started at radar site
1200	Still raining at radar site, no rain reported at Malibu so far
1552	JJ taking over with Ops
1600	Imagery shows some isolated cells embedded in stratiform precipitation just S of the burn area over the ocean. Max reflectivities $< 40$ dBZ. Light rain continues to fall at the radar site, becoming moderate at times. A check of the Malibu gauge indicates $\sim 0.6$ " fell overnight. Rainfall is now taking on more of a showery appearance than earlier.
1605	I cannot verify that the script to update the radar loops on the website is working correctly. The image files are residing on the smartr computer, but the looping seems ineffective. I will continue to try and debug the script.
1611	I think the loops are being built, but it takes the web page a very long time to load them.
1613	Precipitation is now taking more of a banded appearance with cells lining up in a N-S configuration. Light rain continues to fall at radar site.
1615	Forecast discussion and manually observed winds suggest south wind flows never set up, and thus rainfall rates remained moderate at best over the burn areas. In writing this, however, just witnessed a 747 land to the E as if there were offshore breezes.
1617	Curiously enough, offshore (easterly) winds have indeed setup creating a very peculiar picture on velocity. Easterlies are occurring here at the radar site.
1621	Very strange velocity!!! I believe that southerlies have just set up at low levels over the ocean. Some sort of a small circulation has just setup. Aloft we have westerlies. This is worth checking out later! Need to see why this wind pattern set up and if rainrate are enhanced over the burn areas as a result.
1623	I think a loop of velocity around this time would be very interesting, but can't seem to get a reliable plot on the webpage.
1631	The web loops seems to have gone awry around 1450. In checking file modification times, I think Gordon changed something them. The previous script we would run, update_loops.sh, is now being superceeded as it says in the file. In nay case, the easterlies continue here at the radar site although they have weakened and the rain is very light. The southerly flow still continues out over the ocean.
1634	It is unfortunate that the webpage is having difficulty, because KVTX appears to be out. I wanted to see if KVTX could see the southerly flow over the ocean.

1637	Reflectivity is ~ 25 dBZ max and has a cellular, showery appearance.
1638	NOUS66 KLOX 031555
	FTMVTX
	Message Date: Feb 03 2008 15:55:20
	KVTX RADAR DOWN. NO ESTIMATED TIME OF RETURN.
1658	Rain is still light at the radar site and easterly winds continue.
1715	Low-level anticyclonic circulation still visible on velocity images. Rain is very
	light at the radar, and reflectivity over the burn areas is ~20 dBZ. I think showery
1701	rain will continue for a few more hours.
1721	The winds out over the ocean are now SW according to 1.8° tilt, but still southerly
	at 0.9°very shallow circulation. At the radar site, visibility has improved and winds are calm or very light out of the E. Light rain continues. Aloft winds are
	due westerly.
1732	Reflectivity has dropped to ~ 10 dBZ over burn areas.
1736	Max in sea clutter is to the SW, which is different than I've seen before. Looking
1750	out the window, I see indeed that the waves are coming in from the SW instead of
	W.
1740	From conversation with Dave, I discovered looping of reflectivity and velocity on
	web page works if you pause the loop and then advance it manually.
1742	Loops of reflectivity indicate light showery activity, organized in bands, is still
	impacting the burn areas. Suspect rain is very light because reflectivity values are
	~ 25 dBZ.
1745	Low-level circulation seems to be weakening with time. Rain has ended at radar
1740	site and visibility is improving.
1749 1758	Rain gauge data (MLB) shows rainfall rates have fallen to .05"/hr.
1803	I can see the sun trying to peek through the clouds.  Regional radar and satellite loops indicate we're in a lull. Some showery activity
1003	still evident upstream, but suspect this will become more isolated with time.
	KVTX is still out, thus have decided to continue IOP8 for a bit longer. Will take a
	personal break for a moment to see how the showery activity behaves upstream.
1906	Visibility has worsened and light rain falls at the radar site. Surface winds here are
	onshore, yet planes are still landing from the W. Reflectivity is very weak on
	radar with max values < 20 dBZ, mainly in close proximity to radar site. Also
	surface circulation has diminished with SW winds seen at low-levels.
1909	Regional loops show reflectivity is confined more to land areas, but cloudiness
	looks likely for the foreseeable daylight hours.
1919	Direction of take-off/landings has switched. Visibility improving with light rain
1000	ending.
1922	Very sharp back edge of weak reflectivity area now approaching burn areas from
1025	the NW. Suspect this will end whatever rain is falling there.
1925	MLB indicates 0.69" has fallen thus far with rates approaching 0"/hr with time.
1925	KVTX back up and running.
1949	Here is a snippit of the latest discussion:
	ALTHOUGH SHOWERS ARE EXPECTED TO CONTINUE ON AND

	OFF THROUGH THE DAY, THE CHANCES FOR RAINFALL RATES
	TO EXCEED THRESHOLDS IN THE BURN AREAS IS
	EXTREMELY LOW AND THE WATCH HAS BEEN CANCELLED.
1950	Have decided to end this IOP at 2000 UTC. There is no reflectivity in burn areas
	or upstream of burn areas. Visibility is improving, rain has stopped, and winds are
	increasing out of the W.
2000	IOP8 ends.
2000	101 o chus.