SMART-R Event Log
IOP 3 Project: Debris Flow Project

Lat: 34.200610 Lon: -118.350563 Alt: 712 ft. Truck HD: 193 deg
Date/Time SR1 ready for operation: 12 December 2240 UTC
Site: BUR Airport, Burbank CA

Note taker: Katherine Willingham (NSSL)

Time (UTC)	Event
2220	Arrived on site, got computers up and running. Trouble with the antenna again. The antenna would not move without first clicking "home antenna," (which got it stuck last time) and then the antenna got stuck at negative 0.5 degrees. Issue fixed after twice rebooting the computer and a disable/enable of the antenna drives, "stow antenna" button initiated antenna motion. TX Warming…
2300	"Bite CRITICAL ERROR" Have to reboot the computer and try starting again.
2325	Scanning started. Heavy precipitation SE of the radar location moving NW into burn area. *Should have started up earlier, rain already falling at radar location because start-up took too long.
2328	"Error #110: (last was 108) DSP AZ Angles exceed 30 degree span: 134 to 102" Data still being collected after error message, but appears to be rotated on screen approx. 180 degrees, and there were some 'smeared' sections along several azimuths. Stopped scanning and re-scheduled VCP-12.
2335	Scanning restarted, but with same problem of 180 degree data rotation. Stopped scanning. Reset antenna, and re-locked heading from file.
2341	Data collection re-commenced: data now at correct orientation and live feed looks good. Heavy rainfall with embedded convection moving over the burn area. Very disappointing that radar start up difficulty and antenna errors prevented earlier data collection.
2343	Embedded convection of 50dBZ over burn area visible at 6.4 EL. Local radio news reports some homes have been evacuated in the burn area for the safety of residents.
0005	Spoke with Dave Jorgensen on my cell: NWS had tried to call the cell in SR2. They had report of a debris flow, and wanted to make sure the radar was running. Turns out the cell in SR2 was off, this has been corrected.

	Data is displayed on real-time SR2 web site OK.
0011	NWS issued Flash Flood Warning for Station Fire burn in central LA County: *UNTIL 615 PM PST * AT 405 PM PST...LOCAL LAW ENFORCEMENT OFFICIALS REPORTED FLASH FLOODING WITH MUD AND DEBRIS FLOWS ON THE ANGELES CREST HIGHWAY ABOUT 8 MILES NORTH OF INTERSTATE 210. NOTE: data was collected before and after the time of this reported debris flow.
0040	Next wave of rainfall now visible oriented N/S 40-60km east of radar location at low elevation angles. Heavy rain continues over burn area, embedded convection of 50dBZ in a few places.
0105	At 5:05 NWS issued Flash Flood Statement: 505 PM PST SAT DEC 12 2009 ...A FLASH FLOOD WARNING REMAINS IN EFFECT UNTIL 615 PM PST FOR THE SOUTHERN HALF OF THE STATION FIRE BURN AREA IN CENTRAL LOS ANGELES COUNTY... AT 500 PM PST...LOCAL LAW ENFORCEMENT OFFICIALS REPORTED FLASH FLOODING AND DEBRIS FLOWS OVER THE STATION FIRE BURN AREA ALONG HIGHWAY 2 IN THE VICINITY OF MILE MARKER 23. SURROUNDING CANYONS ARE ALSO REPORTED TO BE FLOODING.
0150	Precipitation mode has transitioned into more showers, and less widespread.
0212	NWS has re-issued the Flash Flood Warning: 612 PM PST SAT DEC 12 2009 THE NATIONAL WEATHER SERVICE IN OXNARD HAS ISSUED A * FLASH FLOOD WARNING FOR... THE STATION AND MORRIS BURN AREAS IN CENTRAL LOS ANGELES COUNTY

	* UNTIL 900 PM PST * AT 610 PM PST...DOPPLER WEATHER RADAR INDICATED MODERATE TO HEAVY SHOWERS MOVING INTO THE BURN AREAS. RAINFALL FOR THESE BURN AREAS HAS ALREADY APPROACHED OR EXCEEDED BOTH SHORT-TERM AND LONG-TERM USGS THRESHOLDS FOR FLASH FLOODING WITH DEBRIS FLOWS. THE HEAVY SHOWERS AND POSSIBLE THUNDERSTORMS WILL CONTINUE TO BRING ADDITIONAL FLASH FLOODING AND DEBRIS FLOWS...WITH LOCAL RATES IN EXCESS OF ONE HALF INCH PER HOUR LIKELY THROUGH 9 PM PST.
0300	NWS Flash Flood Warning continues… 657 PM PST SAT DEC 12 2009 ...A FLASH FLOOD WARNING REMAINS IN EFFECT UNTIL 900 PM PST FOR THE STATION AND MORRIS FIRES IN CENTRAL LOS ANGELES COUNTY... AT 650 PM PST...NATIONAL WEATHER SERVICE DOPPLER RADAR CONTINUED TO INDICATE MODERATE TO HEAVY SHOWERS OVER THE WARNING AREA...WITH ADDITIONAL SHOWER ACTIVITY UPSTREAM. RAINFALL RATES OF ONE QUARTER TO ONE HALF INCH PER HOUR WILL CONTINUE THROUGH EARLY EVENING...WITH LOCALLY HIGHER RATES EXPECTED NEAR HEAVIER SHOWERS AND THUNDERSTORMS. IN ADDITION TO SHORT TERM THRESHOLDS BEING MET...LONGER DURATION THRESHOLDS HAVE ALSO BEEN REACHED ACROSS BOTH THE STATION AND MORRIS BURN AREA. DURING THE PAST 12 HOURS...SANTA ANITA DAM (IN THE MORRIS BURN AREA) REPORTED

	2.16 INCHES...WHILE MOUNT WILSON (IN THE STATION BURN AREA) REPORTED 2.71 INCHES. EARLIER THIS AFTERNOON...THERE WERE REPORTS OF FLASH FLOODING AND DEBRIS FLOWS ACROSS HIGHWAY 2 IN THE STATION BURN AREA...BETWEEN MILE MARKERS 26 AND 39. IN ADDITION...CALIFORNIA HIGHWAY PATROL REPORTED A MUD AND DEBRIS FLOW ALONG HIGHWAY 39...ABOUT 1 MILE NORTH OF SIERRA MADRE AVENUE.
0700	Rebooted archive computer after files stopped sending. Gap in real time on web site from 0610 to 0650. Precipitation has almost stopped entirely across the radar viewing area. Skies are now partly cloudy, with a low level patchy Cu field and the temperature is getting colder. Winds here have shifted to the east. However, to the north, there is another front of rainfall visible in 88D radar imagery and on satellite. There is the distinct possibility of another round of rain here over the burn site, especially with the onshore flow the upslope component. There is a long bank of thicker low stratus clouds visible to the north. Will play it safe, and leave the radar running to wait and see.
0740	Some light echoes beginning to show up on the far eastern portions of the radar range. Keeping the radar up and running was good. With the already reported debris flows, any additional rainfall in the burn area could be quite hazardous.
0745-0800	Left briefly to grab some refreshment during this break in the rainfall. All systems check out ok upon return.
0800	Data not sending out: Rebooted archive computer again, data stream now ok. Increasing cloudiness at radar site.
0824	Rainfall started at radar site. Line of convection of 35-50dBZ moving north starting to cross burn area, visible on 6.4 EL and higher.
0900	Heavy rainfall now affecting burn area and radar site. Looks like this will be another few hours of rainfall at least.
1115	Shutting down, front has passed and clouds are clearing.
1140	Lifted feet up 4 inches so truck is sitting on the wheels again. Stowed antenna pointing at transmitter cabinet.

For the entire IOP the rotation angle was off by about 17 degrees, i.e., need to add 17 degrees to all azimuths. Needs to be corrected in the UF files.