HMT Event Log

Date: 2-26-06

Note takers: David Jorgensen & Les Showell

Time (UTC)	Event
2245	Arrived on site – light Rain at site – not much in the way of echoes over the ARB – will start data collection at 00 UTC
0001	Data collection started
0041	Rain subsided as band passed to NE
0056	Big rain mass coming in from west
0102	R—to R- at site
0115	Large Rain from 225 to 310 degrees movg NE
0141	Large rain mass to W now has max dbz to 53 or so, moving NE
0156	Leading edge of rain mass now only 20 km to the w
0205	Rain picking up again in intensity – bright band evident on upper tilts – 2nd cloud deck seen on vertical scan
0240	Rain decreasing as band passes over. New band of enhanced reflectivity now 60 km to the SW. Strong bright band on the upper tilts, perhaps 50 dbz max
0304	Rain at site decreasing to R- , band to W now approaching to 20=25 km to the W
0314	Backing up raw files to laptop
0320	Rain increasing again as second back begins to move over site
0328	Rain coming down pretty hard right now as 54 dbz bright band passes overhead
0358	Rain tapering off as band move to NE
0401	Another band oriented more NNE-SSW about 30 km to the W – not nearly as strong of dbz as the previous 2 bands, maybe 45 dbz man
0450	Rain picking up again at site. As next band moves overhead. Band really isn't a band but a mass of echo to the w to perhaps 80 km. Max deb is 50 or so in a cell at 285/70 km
0511	Backup latest raw files
0518	The 0 Vr isopleth appears to have an east-west orientation al low levels indicating a South wind, not great for orographic upslope component. At ranges beyond about 25 km the zero isopleth on the 3.1 deg tilt does swing to the NW indicating some westerly wind aloft.
0654	Rain has ceased at site, echoes have decreased in overall intensity – dense fog has settled in at the site
0742	Not much echo left on the display
0811	Fog has cleared now the wind has picked up considerably and is rocking the truck.
0815	A large mass of echo >35 dbz now occupies the entire w quadrant
1100	Heavy rain has returned to the site – lots of echo to 45 dbz on the lower tilts to the W and N – 50 dbz bright band and upper cloud deck on vertical scan
1140	Backup raw data to laptop
1145	Noticed that there were periods of time when the blanking sector was not active – the radar would transmit 360 into the cab – then it would start working right again

1220	Rain slacked off at site considerably – dense fog has returned and wind has gone calm – echo mass has move to the N – not much echo to W
1224	Echo on vertical scan now almost gone
1391	Another round of echoes to the SW
1355	Les Showell taking over as SMART-R operator – Large rain area 60 km west 260 deg to 300 deb
1400	R began at site
1404	R- began at site
1408	Nice bright band 8 deg to top inside 20 km R- at the site
1427	R began 50 dbz in bright band overhead and 10 km 15.6 deg tilt
1429	Nice bright band 90 deg overhead begin R+ wind 20+ knot gust
1433	Bright band 270 deg to 090 deg @ 20 deg tilt R- began at site
1451	End R- Sc overcast wind 15 with high gust est
1454	No bright band at 90 deg tilt
1455	Same large rain area 240-038 deg from 242 to 32 deg leading edge site out to 20 km small weak echoes sct R- end 1451– Nav computer hung up
1505	Began R-
1530	R- 1.8 deg area heavy R about 5 km out whole area appears to be moving ENE heavy precip area ringing 5 km range mark azm 208-340 deg
1541	R began. Est visibility 1 mile wnd est 15-20 mph
1548	R to R+ at site AT to 5 km
1551	End R+ still R- to R. Visibility 1 mile
1616	Lots of holes from 240-350 deg hvy n-E 15 km R and R+ site, wind 10-15 mph est
1633	R—began
1637	R—ended
1654	R- began. Area filling again to the west – strongest 240-290 deg leading edge 22 km
1710	R—radar appears areas shifting N of 270 deg broken areas 206-270 deg inside 60 km
1715	R- began
1737	3 deg tilt area is broken 191-360 deg site out to 20 km R- 50 dbz echo at 321/10 km
1742	Nice wave echo's all around 18 deg tilt e-w inside 20 km
1746	Wind speed increase 15-20 with higher gusts. Rain off again on again 45 dbz overhead
1751	2.0 deg tilt echo heaviest at 300 deg 75 km – 100 km. Nice wave echo 240 from 20 km into 10 km. light rain to moderate rain on again off again
1756	The "S" echo no more than a km wide just west of site 10 km 50 dbz R-
1800	Tree blockage 310 radial must be very wet again R- to R area decreasing beyond 60 km at 6 deg elev
1803	R began might be R+
1806	R- to R off again on again
1809	Waave echo's from 6-15 deg inside 10 km
1812	Nice area between 170-200 deb out to 60 km R- to R
1814	R to R+ nice bright band overhead – that blockage back
1818	Strongest echo all around 5 km very nice bright band 35-40 dbz overhead
1821	Much blockage in NE quad from wet trees

1822	5 deg tilt strongest echo 190-230 out to 60 km 20 km wide R- to R end R+ fog visby ½ mile
1827	Wind 20-25 est R- R still bright band
1843	Vr display +13 to -13 m/s looks great. Back R- to R
1848	Nice bright band all the way around. 55 dbz 10 deg tilt to vertical
1857	At 5 deg tilt echo decreasing to the west still nice bright band on east side. Wind gust +30 est R- to R continuing – wind really picked up this ob
1900	0.5 deg tilt through 5 deg tilt sct area echoes out to 60 km to the west. Things have shifted NE through SE back to R-. Bright band still there on 90 deg tilt
1925	1.3 deg tilt echo very sct 220-040 deg. 5.1 tilt 270-040 deg R--. 10 deg tilt 310 deg. Transmitter not shutting off over cab.
1941	Called Tonia to add $ to cell phone. R- to R once again
1958	Back to R- fog ¼ mile visibility
2006	All areas precip has decreased
2009	R- - vsby 1/8 mile fog
2014	R- vsby ½ fog
2033	R- - 2028 R-
2031	New area 220-240 deg love tilts good area inside 20 km 040-220 deg @ 10 deg tilt abv.
2038	Wave echo all around inside 10 km. R fog ½ mile vsby.
2100	Area filling in again 22-350 deg 1.5 deg tilt R- R at site 4 deg tilt good area 360-040 out to 60 km
2130	Jorgensen back at SR1
2200	Rebalancing truck
2254	Rebooting compter to fix cab blanking problem
2256	Heavy rain at site
2300	Data collection started again – but the radar transmitter is not blanking over the cab
2342	Large mass of echoes to the west 50 km – not moving any closer
2350	Backing up data to Nav computer
0028	Echoes surrounding site – no rain here or much in the ARB – light precip <35 dbz on upper tilts
0030	Line of fairly moderate strength echoes (50 DBZ) about 40 km to the wnw (NCFR?)
0042	Small rainshower going overhead = moderate rain – part of a small NE to SW line of dbz ~45
0057	Line of enhanced reflectivity at 40 km not approached the radar much – seems to be moving NNE tangential to the radar – there is now a mass of echo farther to the west ~80-100 km
0115	The low-level zero Vr isopleth runs straight East-West, indicative of southerly flow – not much upslope component if that is true. Some of the low scud clouds over site are moving south to north too.
0118	Must be near the bottom of the synoptic trough axis – even the upper tilts show little westerly flow
0127	Small cell overhead – moderate rain at site – line of echoes that were ~40 km to the west have dissipated or moved northward – small cellular echoes now dominant feature over ARB
0129	Perhaps some graupel falling on the roof of the truck

0145	Large mass of 45-50 dbz echoes to the west 60-100 km getting no closer to ARB with time – seem to be moving S to N
0148	Another small cell giving R+ rain at site – max dbz about 50
0151	Spotty cells to 53 dbz to N and W
0227	Echoes growing in areal extent around site – rain mass 60-100 km to the west not approaching
0236	Very extensive echoes 40-45 dbz from 210 deg through 060 deg from stie to 100 km. R+ rain at site. Bright band to 55 dbz in a ring 17 km around site at 10 deg tilt
0239	Gusty winds at site – very strong bright band on vertical scan to 55 dbz
0253	Extensive stratiform echo out to 60 km all quads. Bright band to 55 dbz on upper tilts. Moderate to heavy rain at site
0302	Very strong gust shook truck
0314	Bright band intensity decreasing on vertical beam now only 35 or so
0340	Rain has stopped at site. Most extensive mass of stratiform echo to 45 dbz now from 270 to 360 40 km out to 100 km. mass of strat rain 360 to 060 20-40 km range on 5 deg tilt.
0347	Only scattered and weak cells remain within about 40 km of radar on lower tilts. Rain seems to be winding down all quads
0400	Most echoes within 60 km scattered weak convective looking cells.
0420	Very distinct NCFR to the west 80-100 km
0441	At 76 km range the 0.9 deg tilt had a max reflectivity in the NCFR of about 60 dbz
0504	NCFR now at 60 km range
0520	NCFR now at 50 km range max dbz still about 60
0534	Pretty big wind gust – truck is rocking
0535	NCFR looks a bit weaker as it trucks on eastward through the valley max dbz only high 50s now instead of low 60s
0545	NCFR is 30 km away
0556	NCFR leading edge is only 20 km away – max dbz uppder 50s – holding together well as it moves eastward = sfc winds here at Foresthill are gusting to perhaps 30 knots & rocking SR1 – R+ rain at site now
0613	Leading edge of NCFR just now getting to site – winds have picked up and rain is increasing greatly. Maybe even some small graupel.
0618	NCFR directly overhead
0648	Sfc wind has really picked up post NCFR – leading edge is now about 25 km to the east
0652	Northern end of the NCFR nearly out of the ARB. Some post NCFR rain, mainly stratiform, but not many echoes to the west.
0706	Moderate intensity rain (45-48 dbz) still over the ARB but echo free to the west of here
0750	Some light rain still over the ARB, mostly anomalous propagation to the W
0902	Small slow moving instability showers continue over the ARB – one has been over the site for the last 30 minutes
0950	Short line segments of 45 dbz oriented SSW NNE in ARB
0956	Security fence down all around the property from high winds – lots of broken branches too
1033	Rain has ceased. After conferring with XPOL we're securing SMART-R and terminating data collection.

1040	All raw sigmet data backed up to laptop and to Nav computer