

MAX Logbook

IOP #	4
Crew Members	Melissa Gonzalez-Fuentes Zeb Leffler
Arrival Time/Date (UTC)	March 31, 2023 at 1819 UTC
Latitude	34.655203
Longitude	-87.349702
Heading	90 deg
Cab Blanking	N/A
Elevation (m)	177 meters
Fully Operational Time/Date (UTC) <i>*List any non-operational equipment below*</i>	March 31, 2023 at 1858 UTC
Departure Time/Date (UTC)	April 1, 2023 at 0831 UTC

Scan Strategies, Observations, Equipment Issues, Notes, etc.

Time (UTC)	Observations/Notes
1819	Arrived at CTD
1858	Fully operational
1900	<p style="text-align: center;">Began BL Clear Air Scans</p> <p style="text-align: center;"><i>***Will change to rapid cycle scans when convection is within 60 km of location***</i></p> <p style="text-align: center;"><i>**Scanning Strategy Listed Below**</i></p> <p style="text-align: center;">Scan Rate: 17/18 deg/sec (set to 19 deg/sec) Pulse Width: 0.8</p> <p style="text-align: center;">Elevation Scans: 0.7, 1.3, 2.0, 2.7, 3.7, 5.0, 7.0, 9.0 (total time = ~3:00 <i>**RHI Scans Listed below**</i></p>

	MoDLS: 48 deg (true north) 360 deg (true north)
1935	Stopped scanning to check issue with RHI scans
1958	Sounding Launched by Sounding Team
2000	10-m Surface Observations T: 23 C, Td: 14.7 C, WSPD: 5.0 m/s, WDIR: 195 deg, Sky: BKN, Partly Cloudy
2003	Resumed Scanning after checking Angle Off-Set Issue <u>SCANS PRIOR TO THIS TIME ARE NO GOOD DUE TO ANGLE OFF-SET WAS NOT SAVED, ORIENTATION WAS INCORRECT</u>
2048	Light precip
2100	10-m Surface Observations T: 22.8 C, Td: 15 C, WSPD: 6.0 m/s, WDIR: 170 deg, Sky: BKN, Partly Cloudy
2130	Sounding launched
2143	Clearing to our west, sun is out
2200	10-m Surface Observations T: 22.5 C, Td: 15.8 C, WSPD: 5.0 m/s, WDIR: 185 deg, Sky: BKN, Partly Cloudy
2200	Michael Mercier UAH OMC visited site
2300	10-m Surface Observations T: 22.3 C, Td: 15.8 C, WSPD: 5.8 m/s, WDIR: 185 deg, Sky: BKN, Partly Cloudy
2300	Sounding launched
0000	10-m Surface Observations T: 22.2 C, Td: 16.0 C, WSPD: 6.5 m/s, WDIR: 155 deg, Sky: BKN, Partly Cloudy
0002	Sounding launched
0100	10-m Surface Observations T: 22.0 C, Td: 16.1 C, WSPD: 8.0 m/s, WDIR: 195 deg, Sky: BKN, Partly Cloudy

0100	Sounding launched
0200	10-m Surface Observations T: 22.2 C, Td: 16.2 C, WSPD: 7.2 m/s, WDIR: 193 deg, Sky: BKN, Partly Cloudy
0200	Sounding launched
0218	Dish stopped spinning during RHI Error mentioned it wasn't able reach elevation Stopped at azimuth of 359 deg and elevation of 1 deg Will see with the next RHI if error persists
0228	Radar dish will spin however will not go above 1 deg. Have been trying to resolve the issue to no success with Preston's and Dustin's advice.
0254	Shut down computers and rebooted and still unable to change the elevation
0300	10-m Surface Observations T: 22 C, Td: 15.8 C, WSPD: 9.5 m/s, WDIR: 200 deg, Sky: BKN, Partly Cloudy
0300	Sounding launched
0305	Per Dustin Phillips' words: <i>Ok. It appears we have lost the elevation amp or motor. It will require further troubleshooting back at swirl. Nothing further can be done in the field. This is unfortunate. @Kevin Knupp do you want to operate at the 1 degree elevation angle the rest of the iop? This should not cause any further issues to the system. We will just need to set the scan to only ask for the elevation it is stuck at.</i>
0311	15 m/s gust
0312	BEGAN SCANNING AGAIN <i>***Will only be conducting PPIs from now on at a constant elevation of 1 degree because the dish will not go past 1 deg in elevation***</i>
0331	15 m/s gust
0400	10-m Surface Observations T: 22.3 C, Td: 16.2 C, WSPD: 7.7 m/s, WDIR: 199 deg, Sky: BKN,

	Partly Cloudy
0405	Sounding launched
0407	16 m/s wind gust
0500	10-m Surface Observations T: 22.3 C, Td: 16.9 C, WSPD: 10 m/s, WDIR: 196 deg, Sky: BKN, Partly Cloudy
0500	Sounding launched
0600	10-m Surface Observations T: 22.5 C, Td: 17.5 C, WSPD: 10 m/s, WDIR: 193 deg, Sky: BKN, Partly Cloudy
0604	Sounding launched
0625	Stopped Scanning
0628	***TOWER LOWERED AHEAD OF APPROACHING SEVERE THUNDERSTORM WARNED STORM/TORNADO WARNED STORM***
0633	Began scanning again
0655	Light precip beginning ahead of convective line
0700	10-m Surface Observations T: 22.3 C, Td: 17.9 C, WSPD: 7.2 m/s, WDIR: 225 deg, Sky: OVC; precip moving in
0719	Constant lightning, heavy precip
0732	Very heavy rain associated with reflectivity core, constant lightning, winds jumped from 3 m/s to 9 m/s
0744	Rain behind convective line arrives
0748	Heavier rain arrives, lightning, winds gusting up to 8 m/s
0800	End of operations
0800	MAX will be left at CTD and elevation issues will be dealt with later
0810	MAX Tearing Down

