NCAR ISS Measurements and Data Processing for the DYNAMO Campaign.

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NCAR / EOL operated two ISS (Integrated Sounding Systems) for the DYNAMO campaign. The ISS were deployed as part of an NSF facility request lead by PIs from the University of Miami, Colorado State University and others. The two ISS were deployed on the island of Diego Garcia and on-board the R/V Revelle, along with a wide variety of other instrumentation from many other groups. Both ISS used 915 MHz boundary layer wind profiler radars, radiosonde soundings, GPS integrated water vapor, basic met sensors and sky cameras. The Diego Garcia ISS also included RASS, a surface met station with 10 m tower, solar radiation and a ceilometer. The presentation will discuss instrumentation issues, data processing procedures, and some preliminary results. Despite a long and challenging campaign, the major instruments remained fully operational for the entire project, however there were some outages in auxiliary instruments such as rain gauges and solar sensors on Diego Garcia. On the Revelle, the wind profiler was susceptible to sea clutter in the lower range gates, and a correction routine is being devised. Both sites were affected by local surface heating, from the island and lagoon in the case of Diego Garcia, and from the ship superstructure and smoke plume on the Revelle.