



## CLOUD, AEROSOL, AND PRECIPITATION SPECTROMETER (CAPS)



### SPECIFICATIONS:

- Multiple Instruments in one flight canister, covering a sizing range from  $0.5\mu\text{m}$  to  $1550\mu\text{m}$ , plus Hot-Wire LWC sensing, Temperature and RH
- Cloud and Aerosol Spectrometer (CAS) section uses forward-scatter and back-scatter techniques to measure particles from  $0.5\mu\text{m}$  to  $50\mu\text{m}$
- Cloud Imaging Probe (CIP) section uses a fast 64-element photodiode array to generate 2-Dimensional Images of particles from  $25\text{-}1550\mu\text{m}$ , as well as sizing in 1-Dimensional Histogram form, and includes housekeeping data
- Liquid Water Content: Hot-Wire sensor measures up to  $3\text{g}/\text{m}^3$
- Airspeed and Altitude measurements from the heated Pitot tube
- Temperature sensor measures ambient air,  $\pm 1\text{C}$
- Relative Humidity measurement via the Honeywell Humicap
- Output: Ethernet or high-speed serial RS-422 and RS-232 interfaces
- PADS or PACS software packages are powerful data-analysis tools to display, record and play back data from any DMT instruments
- Calibration Fixtures: Spinning Disk unit for the CIP and Glass-Bead calibration fixture for the CAS are included
- Power: 28VDC: 10A for probe system, and 45A for anti-ice heaters
- Weight: probe and canister: 45 lbs./20.4kg
- System: includes the spectrometer, flight canister, lab-based data system, test cables, software, spinning disk CIP calibration tool, CAS calibration glass bead dispenser, shipping case, one day of training at DMT's facility, and one year warranty