ATD Presentation for RIME Planning Meeting, Sept 2001

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• Surface Systems
• Remote Sensing Systems
• Airborne Systems
• Allocation Process
• Schedules

ATD Systems: Automated surface weather station deployed at 88N in Arctic Ocean Experiment, July 2001

ATD Systems: ISFF at South Pole Station, Dec 2000 – Jan 2001

ATD Systems: Multiple Antenna Wind Profiler at Storm Peak, CO, Jan-Feb 2001

ATD Systems: Automated weather stations at SHEBA ice camp, 1998

ATD Systems: C-130 at Thule, spring 2000
ATD Systems: C-130 Remote Sensing Systems

Present remote sensing capabilities:
- Passive 7-channel Vis/IR – pod
- Passive 2-channel microwave – cabin
- Two-wavelength Raman lidar – pod
- GPS dropsonde – pod

Future remote sensing possibilities:
- Doppler cloud radar – pod
- Hyperspectral imager – pod
- Other?

Who uses ATD systems?

- Agency: 10%
- Joint: 10%
- NCAR: 24%
- Univ: 56%

High-resolution thermodynamic and wind data from the NCAR Dropsonde

Presently used on >20 research aircraft.
- Automated pod launcher on NASA ER-2
- Expect good sensor performance and good GPS winds in Antarctica.

ATD Systems: Equatorial Deployments

- Request/Allocation Schedules:
  - In sync with NSF/ATM schedules - winter/summer submission for spring/fall decisions;
  - System allocations 6 - 12 months out;
  - Letter of intent/advance reservation 12 - 18 months out.