Profiling of Winter Storms (PIOWS)

Raubet al

Operations
Operations - 1

- **Instrumentation**
  - GPS Drop sondes – survey flight required
  - CPI – No spares
  - CSI – User operated
  - Drop sondes – student assistance

- **Flight Planning**
  - ATC limits on flight tracks
  - Limited to U.S. air space
  - Predefined drop sonde locations
    - 24-hours advance notice on pattern A, B, …
    - 2-hours advance finalize route (in air may be possible)
  - Single crew – crew duty limitations
Operations - 1

Single crew – crew duty limitations

14-hour crew duty day (problem: timing of weather)

12-hour rest between crew days

35 flight hours per 7 days (not a problem)

110 flight hours per month (not a problem)

24-hour warning for change from day-to-night and night-to-day schedule
Operations - 2

- **SatComm**
  - Upgraded system being installed
    - Higher bandwidth (128 kbits/sec)

- **Weather**
  - In flight icing can degrade some measurements
  - No option for pre-flight de-icing (missed flights)
  - Provision for diversions to alternate sites
  - No EOL forecasting
  - No supplemental C-130 cabin heating for off hours
Operations - 3

Access to Guard Base at Peoria (Guard side of the airport)

- C-130 in hangar
- RAF escort required thru gate and on ramp (e.g. students)
- U.S. citizens or green card holders only
- Two hour pre-flight (sans tail deicing)
- Reflective vests for night ramp access (RAF provided)
Data / OPS Center

- Project OPS Center in Champaign
  - Real time data displays
  - Real-time Command & Control

- Standard EOL Data Center @ hotel
  - Communication links to Champaign
  - EOL support staff
  - Outside Data Transfer

The end