

Profiling of Winter Storms (PIOWS)

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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 airpoint)
 - 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