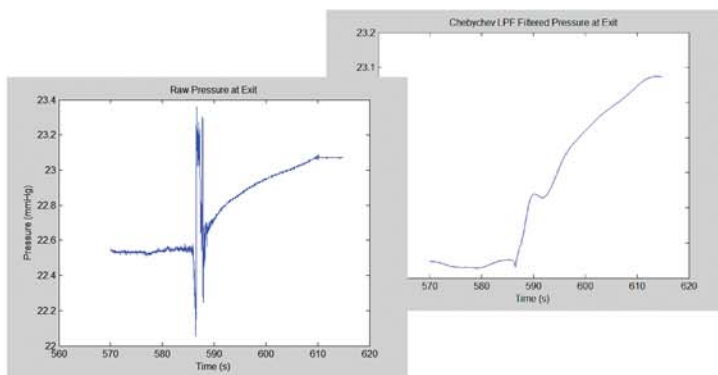


Automatic Opening Device (AOD) and Trajectory Reconstruction System (TRS)

The AOD is designed to capture parachute jump descent data for training and safety purposes. Operating the AOD is easy - it requires pressing of a single arming button prior to departure from the aircraft.

The AOD has been tested on over 500 distinct live and dummy parachute drops from C-130, UH-1, and CH-47 aircraft. These tests were done with the standard T-10 chute, the SF-10A (SOFTPS), the MC-1C, and the new ATPS chutes.

- The AOD records jumper acceleration, velocity and position from the point of departure from the aircraft.
- The TRS also includes MEMS Gyroscopes that measure pitch, roll, and yaw.
- Recorded data is available after the jump for download and analysis through the AOD Analysis Software package.
- Algorithms to automatically deploy the reserve parachute in case of (1) chute failure, (2) partial open condition, and (3) towed jumper are validated. Deployment is accomplished by firing a pyrotechnic actuator that pulls the reserve handle.



Additional AOD Features

- Better than 6 month battery life. Integrated battery self-test.
- Jumper altitude descent estimation is better than +/- 8 feet/second.
- Validated descent rate estimates are available within 4 seconds of departure.

