Real-Time Processing System (RTPS)

Airborne Hyperspectral Solutions

Reduce Mission Costs & Risks by **Real-Time**:

- Raw Image Data Backup
- Real-Time Radiometric Calibration
- Diagnostic Alerts

itres

Real-Time Processing System

Raw, Backup, & Processed Data in Hand Before You Land

The RTPS provides real-time (RT) processing/analysis and backup capabilities for your ITRES sensor(s), saving you post-mission time and allowing faster access to the data and derived products.

Origins & Real-Time Analysis

The RTPS originates from landmine detection research conducted with Defense Research & Development Canada (DRDC). A proof of concept test in 2000 demonstrated the ability to successfully perform discriminatory analysis using smart algorithms in real-time using hyperspectral CASI (VNIR) data.

The RTPS is the first to bring these capabilities to a commercial audience, utilizing hyperspectral SWIR, VNIR, and/or Thermal imagery in real-time (or near real-time) from an aircraft.

The RTPS is integrated with our proven Windows™-based data collection software, which features real-time monitoring /analysis of sensor health values, ILS data, and GPS/PPS data from the ApplAnix POS AV™ or NovAtel SPAN™ systems.

RTPS Compatibility

Works with all ITRES imagers (CASI, SASI, TASI, TABI).

Processed Imagery & Backup

When raw imagery is recorded, a copy is automatically radiometrically corrected and recorded to a swappable drive. This 16-bit imagery is calibrated to spectral radiance units, ready for further RT analysis or orthocorrection. Simultaneous backup of the raw data is made to a separate FireWire™ disk to guard against loss.

Automatic Monitoring

The sensor controller software features dedicated status lights which visually alert the user to the status of the RTPS, incoming data streams, & out-of-tolerance sensor health values. Status windows allow further investigation.

System Status Light States:

OK   Transition   Error

itres