



### *Applications:*

- High grade real time monitoring and in-depth analysis of dGPS system performance
- Real-time positioning of vehicles or vessels, including waypoint navigation facilities.
- Recording of raw GPS and RTCM data for past-mission processing, trip replay and data analysis.

### *Key Features:*

- Runs as full 32 bit application on Windows 2000, XP, Vista, Win7 (32&64)
- Applies RTCM corrections from a third party supplied differential link to raw pseudo-range data provided from the Altair receiver. Altair therefore uses raw rather than preconditioned data for an in-depth analysis of true dGPS system performance.
- Use of a separate Altair GPS receiver also enables a performance comparison with primary receiver whilst the sharing of a common antenna, wherever feasible, will assist Altair to indicate the presence of multipath or signal attenuation.
- Performs a comprehensive statistical analysis on all observables to assess the validity of all received data being applied in Altair's weighted least squares position solution.
- Comparison between up to 2 external dGPS system positions and the computed Altair position.
- Scalable map display of Altair and external system position input data, including Altair position error ellipse.
- Altair system 3D error ellipse wire-frame display.
- Integrated audio-visual system performance alarms relating to satellite constellation, differential link integrity, system precision and external position comparisons alert the operator to potential positioning problems.
- Simultaneous monitoring and optional recording of up to 6 reference stations from up to 2 different RTCM sources.
- User selectable multiple reference station position solutions for comparison with the primary system
- Recording and time tagging of all available data sources in a single proprietary format file for post-mission data replay and analysis. 'What if' scenarios can be tested for different SV or reference station combinations.
- Comprehensive investigative tools available to assess dGPS performance, including decoding and displaying of all SV and RTCM messages, F Test and W Tests, SV Signal Strength time series, DOP time series, Marginal Detectable Error (MDE) and External Reliability time series, spheroidal height time series, SV sky view chart.
- Highly portable dGPS QA/QC system when used on notebook computer equipment. Ideal where weight or space restrictions is an issue, such as helicopter transportation.
- Outputs standard NMEA data string for use by external systems such as radar, echo sounder etc.
- Interfaces to external gyro for accurate offsetting of antenna position to another reference point such as rig drill stem, Navigation Reference Point [NRP), fathometer transducer etc.

### *Minimum Recommended System Requirements:*

PC: 1 GHz Pentium or AMD desktop or notebook computer running Windows 2000/XP/Win7, with 40Gb HDD, 1 GB RAM, CDROM, suitable data exchange/transfer medium and sufficient disk storage for project data.

Integrated 6, 8 or 12 Channel 'Motorola' GPS receiver: (Optional Trimble 4000 receiver).

8 port serial card for Desktop PC or 4 port PCMCIA serial card for Notebook or Multiple USB serial ports. Altair software and Software license or Dongle.