

High Precision GPS Monitoring for the Oil & Gas Industry

Permanent Monitoring of Ground Movements

Advantages

- Continuous surveillance with the highest accuracy
- Early indication of ground movements
- Easy coverage of wide areas
- High repetition rates
- Highest accuracy (up to millimetres)
- Highly reliable and economical, using field proven components

Measuring System

- All GNSS systems
- Offshore on platforms
- Onshore above reservoirs or at facilities
- Own or third party reference stations
- Integration of additional sensors: tidal, pressure, temperature, vibration, strain, level, ...
- Data transfer via satellite-based internet data link
- Remote operability, early warning and alert systems
- Explosion-proof installation available

Services

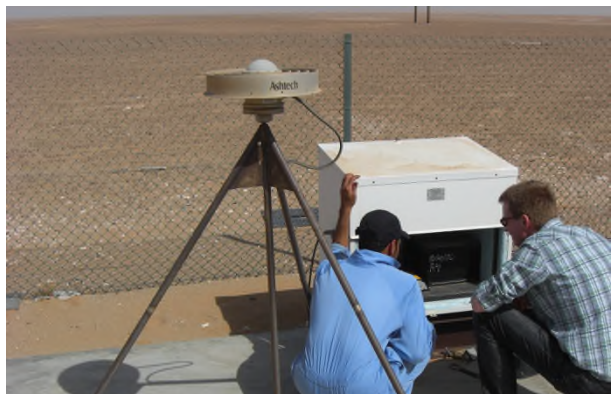
- Installation, start-up and commissioning
- Operation, maintenance and updating
- Advanced data post-processing for highest accuracy
- Online data access and automatic report generation
- Independent control by using different evaluation methods



Fully automatic remote monitoring of oil platform movements and sea level under extreme offshore environment conditions.



GNSS Choke Ring Antenna, mounted on a platform.



Permanent GPS monitoring.

Engineering Surveying

- Basic network setups
- Ground control point work
- GPS surveying
- High-precision 3D measuring of ground and building movements with real-time GPS and use of reference network services
- Special survey
- Customer specific survey
- Deformation analysis and modelling

Pipelines and Pipe Jacking

- All geodetic methods
- Orientation measuring with GYROMAT 2000/3000 and explosion-proof surveying gyroscopes
- Measuring and prediction of break-through points in pipe-jacking
- Precision leveling and traversing
- Check survey and expert reports

Photogrammetry

Radarinterferometry

- Satellite: INSAR, DINSAR
- Satellite: Permanent Scatterer
- Terrestrial radarinterferometry

Terrain and Structure Survey

Seismics

- Stake out in large 2D and 3D seismic projects (>200km²)
- GIS and GPS data processing
- PPV-measurements
- Seismic geomatics office

Monitoring Networks

- Robotic total stations
- GPS / GLONASS / Galileo stations
- Geotechnical sensors
- All communication channels for remote access and on-line features

General Surveying

- GPS and total-station measuring
- Levelling and laser scanning
- Error minimizing data processing

Consulting and Studies

Geodetic Project Management

3D Laser Scanning

- Explosion-proof instruments
- Virtual reality option

Geomatics

- GIS data processing
- Monitoring and network control

Gyroscope Expert Body

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