

ORBITA

GBAS STATION

ORBITA GBAS Station is the ground-based functional augmentation to GNSS GLONASS and GPS being a part of aerodrome radio communication equipment and used as a source of differential data to provide for ICAO category I final approach manoeuvring, approach and landing of aircrafts.

FUNCTIONALITIES

The station provides:

- Observed GNSS GPS and GLONASS satellites integrity monitoring:
 - satellite SQM
 - satellite signal strength control
 - monitoring of transmitted navigation data (satellite clock malfunction detection using MQM algorithm, ephemeris errors detection)
- Abnormal ionospheric conditions detection
- Generation of differential corrections including GPS and GLONASS satellites integrity data
- GNSS GPS and GLONASS operational capability forecasting
- Transmission of differential corrections, data about GBAS, FAS data, GNSS operational capability forecast over VDB radio link
- VDB radio line diagnostics (using monitor receiver) and automatic redundancy
- Informing controllers on the possibility to perform final approach manoeuvring and precision approach procedures by means of GNSS
- Technical control and monitoring:
 - testing measurements for multipath effect, noise impact and phase measurement jumps
 - diagnostics of reference receivers and other equipment failure

