

GIANT

GPS Interference and Navigation Tool

The Global Positioning System (GPS) Interference and Navigation Tool (GIANT) is a many-versus-many constructive and repeatable GOTS simulation tool that computes GPS/GNSS and other navigation system performance and mission impacts in a benign or electronic combat environment.

Features

GIANT is regularly upgraded to reflect the continuing evolution of the GPS enterprise architecture and its augmentations, GNSS, Navigation Warfare (Navwar), and network-centric technologies.

- Current/future user equipment and platforms, satellites/pseudolites, and interference/jamming databases
- Signal environment (J/S and C/N), static/moving jammers
- GNSS performance, including maps and integrated charts (e.g., DOP, CEP, and SEP) satellites in field of view
- Communications satellite line-of-sight planning
- Terrain effects – LOS detection and signal attenuation
- Export to Google, GeoTIFF, JPEG, BMP, and PNG
- Real-time data feeds and constellation status
- User-friendly setup and scenario visualization
- Comprehensive documentation and training

Applications

GIANT originated in 1996 to support the Navwar analysis of alternatives and has been applied to hundreds of analyses by numerous civilian and military user communities: acquisition, test and evaluation, training, and operations.

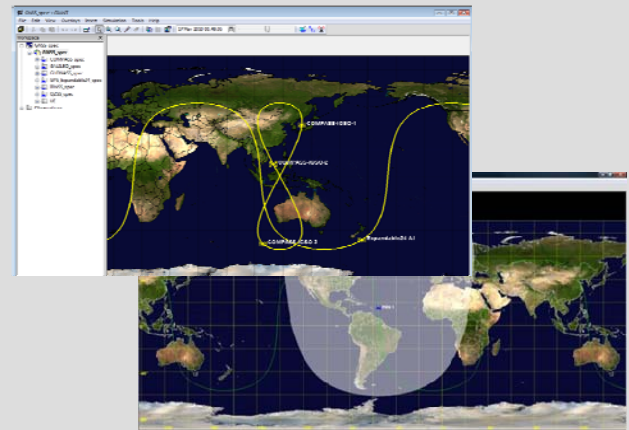
- Navwar analysis: EA, EP, and ES with advanced threats
- JCIDS/AoA Support: performance trade-off, CONOPS development, military utility analysis, and decision support
- GPS analyses: interference and anti-jam, relative nav, flex power, spot beam, M-code, and weapons effects
- Test and evaluation support: planning, predictions, and V&V
- Operations support: GPS Operations Center (GPSOC) prediction and analysis, warfighter mission planning, and AOC weapon system baseline (10.1)



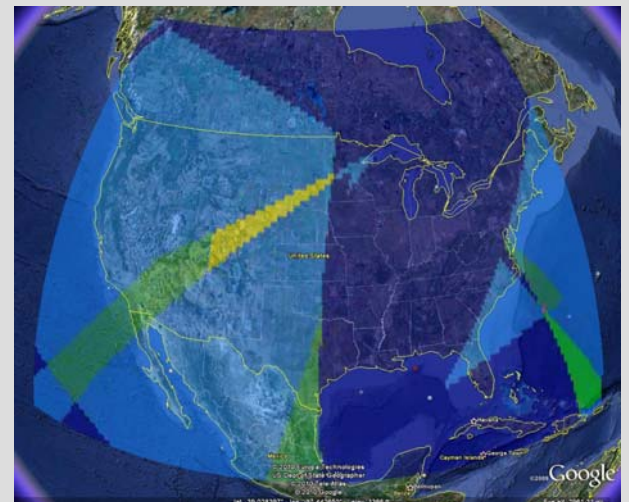
www.giantsw.com

SMC/XR and CCB managed
AF Standard Analysis Toolkit
AFSPC SARP and M&S Toolkit
AF MSRR

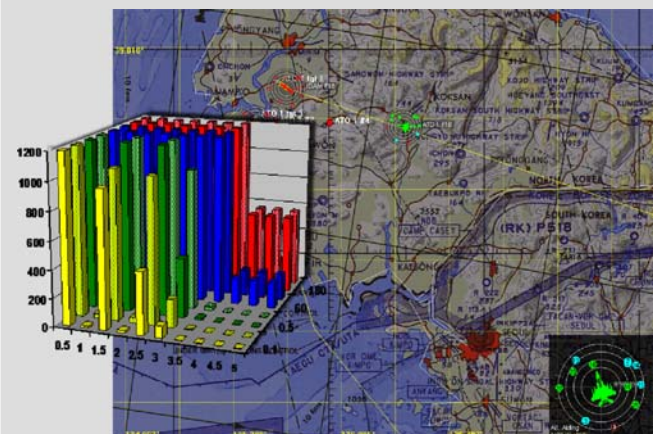
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*GNSS MS&A (GEO, MEO, LEO)
Earth coverage and Spot Beam display*



Google Earth Visualization



Mission Level Analysis