COMSAT STAR®

SATELLITE TOOLS AND RESOURCES

COMSAT STAR® is a comprehensive suite of analysis tools for planning, managing, and validating satellite communications links. The tools, which include the Antenna Coverage Program (ACP), the Link Analysis Program (LINK), the Propagation Analysis Program (PAP), and the Coverage Analysis Program (CAP) are combined with the Satellite System Database (SSDB)—a comprehensive relational database of satellite system parameters—and powerful calculators for pattern advantage analysis, beacon calculations, and general satellite conversion calculations. Utilities to compute pointing angles, beta factors, and look angles are also included.

BENEFITS

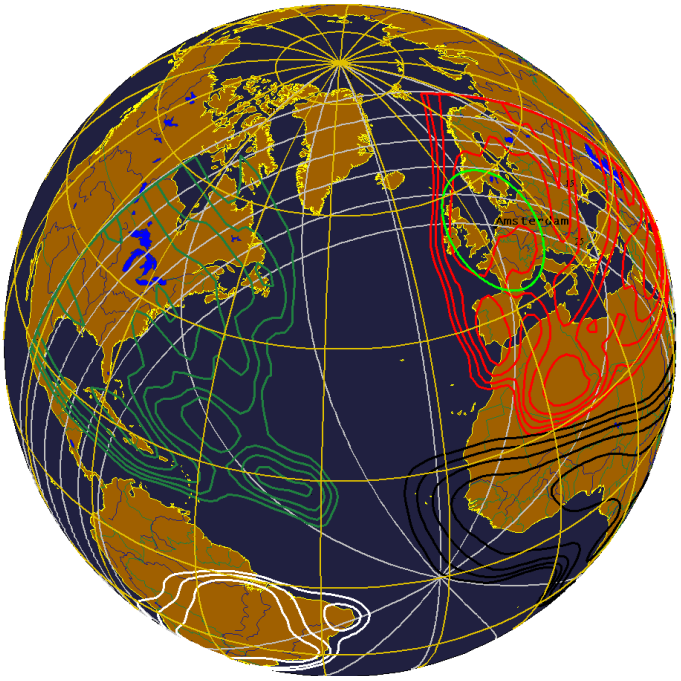
- Quickly determine all possible options for a specified link based on desired end-to-end connectivity, throughput, and frequency band.
- View satellite visibility and beam coverage patterns.
- Conduct end-to-end link budget analysis.
- Accurately compute rain margins using one of several models and the most accurate climatic databases available.
- Perform commonly used satellite communications data conversions in an easy-to-use format.
- Perform long-range planning and generate requirements.

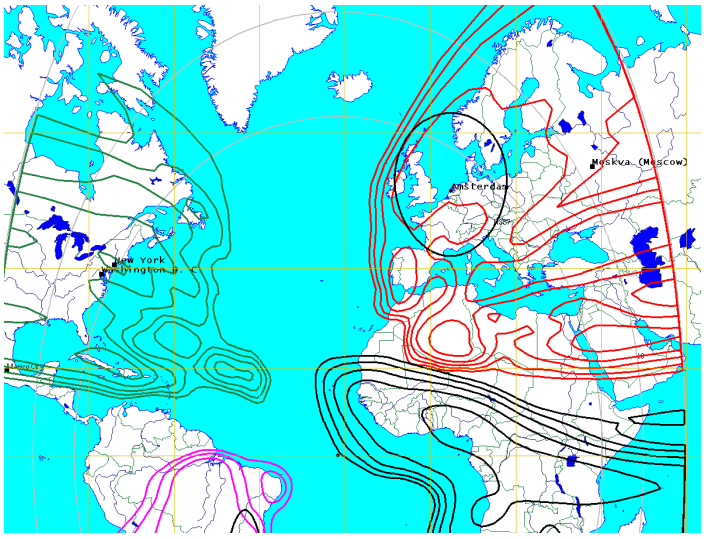
FEATURES

- Generates detailed and flexible link budgets (LINK); computes C/N or transmit EIRP.
- Calculates earth station look angles and beta factors.
- Determines the effects of satellite inclination.
- Calculates rain impairments (PAP) – predicts attenuation due to rain, cloud, melting layer, gaseous absorption, tropospheric scintillation, and low-angle fading. Includes the COMSAT® PAP, ITU, COMSAT® DAH, and Crane models.
- Generates custom coverage maps (ACP), including:
  - satellite antenna gain pattern contours
  - earth station and city locations
  - areas of satellite visibility
  - up-to-date maps with countries, coastlines, rivers, lakes, and political boundaries
- ACP's map viewing capabilities include:
  - rotate and zoom capability
  - orthographic, perspective, equirectangular, and Mercator projections
  - complete control over colors, drawing styles, titles, labels, and geopolitical features (for creating presentations / graphics artwork)

SATELLITE SYSTEM DATABASE

- Store data on multiple satellite systems.
- Store and retrieve satellite, antenna, beam, gain grid, amplifier characteristics, and transponder data.
- Store and retrieve earth station data and modem characteristics.
- Use built-in error checking of related fields to reduce data conflicts.



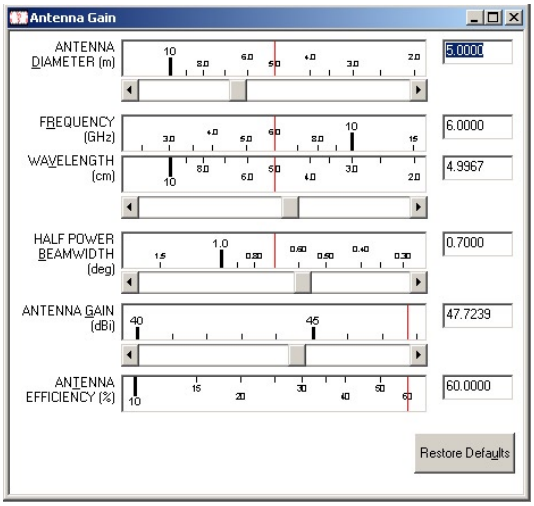


ACP MAP VIEWS

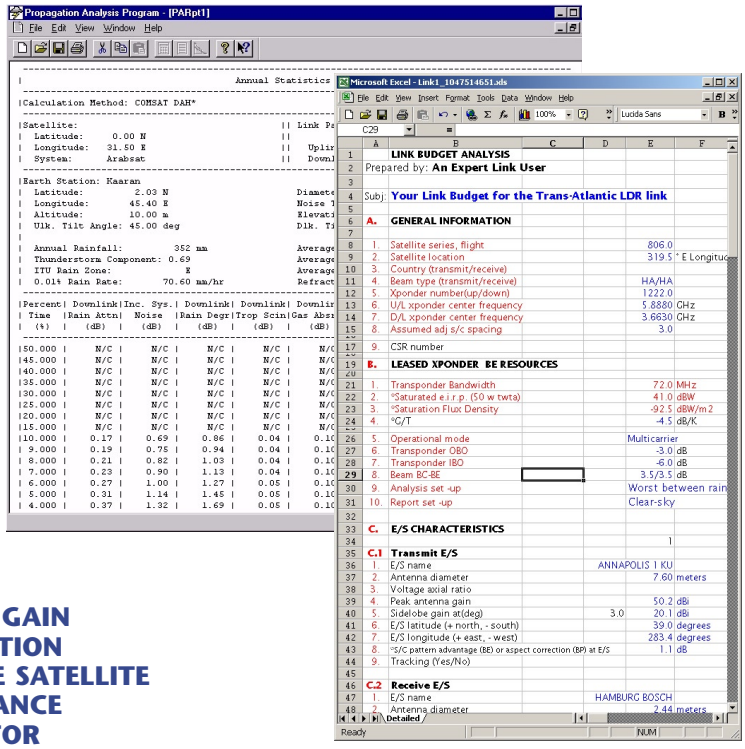
- Whenever possible, STAR automatically populates fields with retrieved data from the database or calculated values.
- Supports Oracle® and Sybase® databases.

COMSAT STAR REPORTS

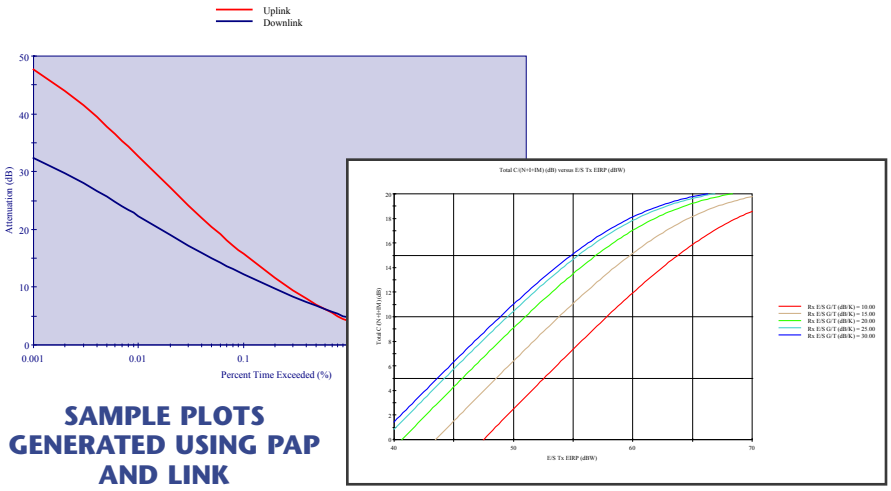
- Coverage analysis reports.
- Antenna coverage plots.
- Link budget summaries.
- Propagation analysis summary.
- Custom reports (easily generated from the SSDB).



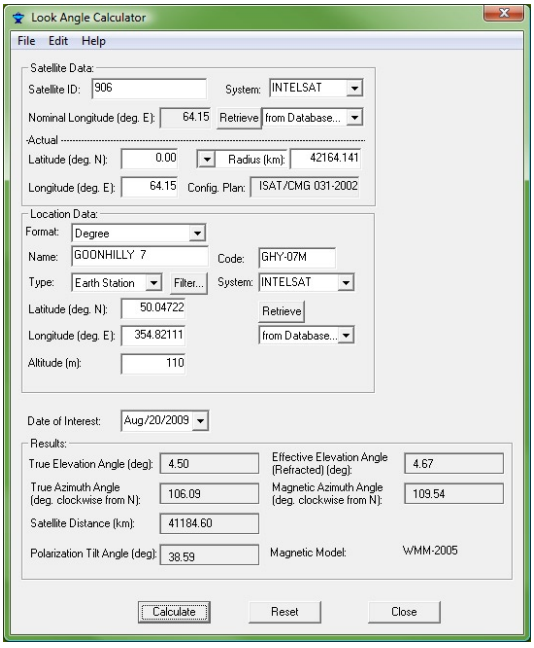
ANTENNA GAIN COMPUTATION USING THE SATELLITE PERFORMANCE CALCULATOR



SAMPLE REPORTS FROM STAR SUITE APPLICATIONS



SAMPLE PLOTS GENERATED USING PAP AND LINK



LOOK ANGLE CALCULATOR

MINIMUM SYSTEM REQUIREMENTS

Windows XP / Vista
100 MB free hard drive space
1 GHz CPU
SVGA video adapter
1 GB RAM
1024 x 768 res / 16-bit color
CD-ROM Drive

Optimal Satcom, Inc.
11180 Sunrise Valley Drive
Suite 200
Reston, VA 20191-5491 USA
Tel: +1 703 657 8800
Fax: +1 703 547 0145
Email: products@optimalsatcom.com
www.optimalsatcom.com

Visit us on the web at www.optimalsatcom.com for more information on our quality software products for satellite communications.

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Software tools, training, and consulting services for the satellite communications industry.

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