

# ABLE

## Airborne Broadband Link Evaluator

Airborne Broadband Link Evaluator (ABLE) is a GUI-driven simulation tool that provides global coverage planning, analysis, and visualization capability for mobile terminals using broadband links on commercial transponded satellites. ABLE, initially developed for airborne applications, is also being expanded to allow analysis of maritime and terrestrial terminals. ABLE was developed using a modular approach, which allows it to be easily modified to support both existing and emerging waveforms, satellites, and terminals.

### Features

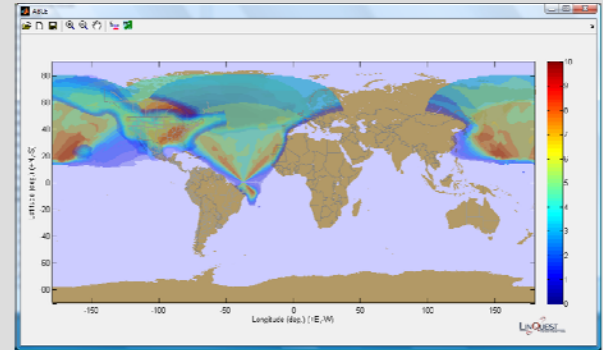
ABLE performs detailed point-by-point link budget calculations to evaluate forward and reverse link data rates over a region. Several features are provided to allow analysis of system design, coverage, and capacity including:

- Multiple terminal antenna models
- Multiple waveform models and the ability to add new waveforms
- GXT pattern import to allow use of commercial satellite provider beam data
- Ability to save, recall, and easily change any parameter to see the impact on system coverage areas
- Google Earth export – allowing rich graphical output with overlays that can be easily manipulated and shown to customers

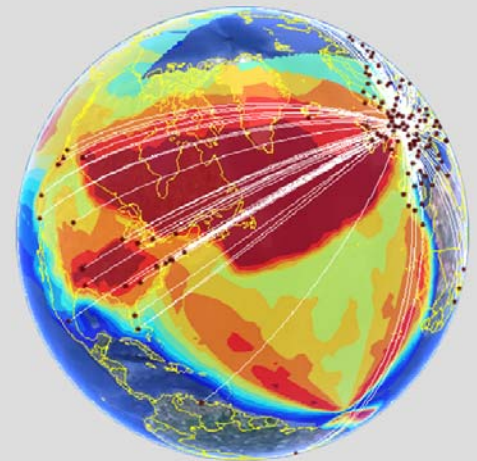
### Applications

ABLE supports system analysis and design of satellite communications networks with terrestrial, airborne, and maritime terminals.

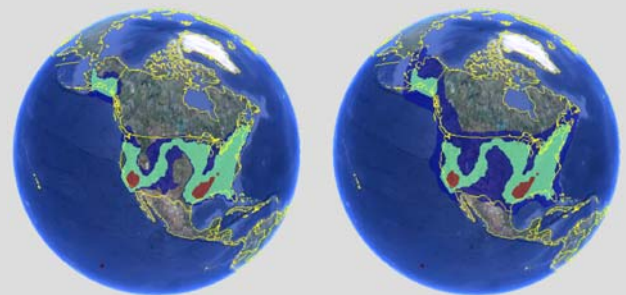
- Airborne satellite communication network design
- Selection of satellites, transponders, and carrier parameters
- Network, terminal performance characterization
- Operations support



*Airborne Broadband Link Evaluation*



*Showing Coverage Areas and Aircraft Routes (Google Earth Export)*



*Showing Impact of Two Different Waveforms*