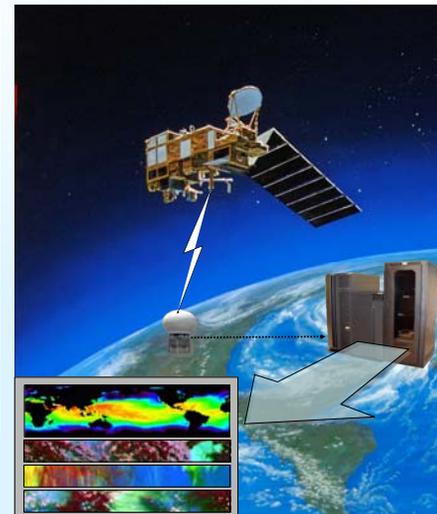
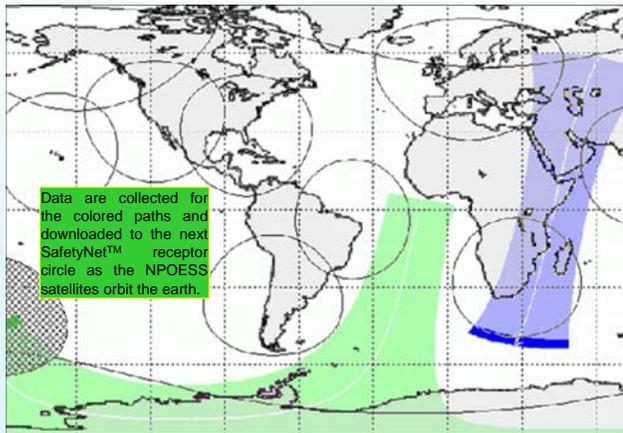


NPOESS' Key to Low Data Latency: SafetyNet™

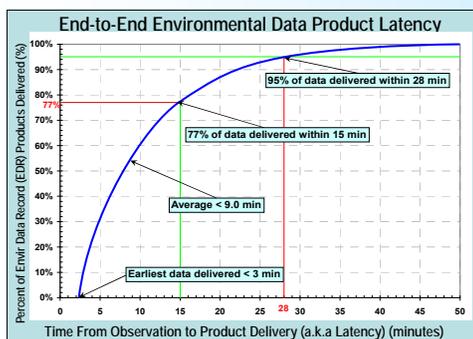
A key feature of the National Polar-orbiting Operational Environmental Satellite System (NPOESS) is the Northrop Grumman Space Technology patented data collection architecture called SafetyNet™. Globally distributed ground receptors (15) developed by Raytheon Company, collect up to ten times as much weather data four-to-five times faster than current polar-orbiting weather satellites. Once collected, these data are forwarded near-instantaneously to US weather centrals via the global fiber optic network for processing in environmental prediction models.



- 15 locations, 10 countries
- Full motion to track polar satellite
- Ka-Band frequency
- Single, receive-only
- Autonomous operations



Reliable and timely collection, delivery, and processing of quality environmental data



Quality

Support environmental analyses for science and operations: 10x more data than DMSP or POES

Support forecast warnings and now-casts: ≤15 minute data latency 77% of the time, under 28 minutes 95% of the time

Latency

Availability

Support operational needs of all users: 99.95% data availability and 94.3% system availability

- All components of a NPOESS SafetyNet™ facility must be located to avoid significant impacts on the following environmental resources
- Land Use
 - Wilderness Areas
 - Natural National Landmarks
 - Water Resources
 - Geology and Mineral Resources
 - Flood Hazard
 - Biological Resources
 - Air Quality
 - Cultural and Historic Resources
 - Farmlands
 - Solid and Hazardous Waste Noise
 - Visual/Scenic Resources
 - Minority/Low-Income Populations

SafetyNet™ -- 15 globally distributed data receptors linked to the centrals via commercial fiber -- enables low data latency and high data availability

