

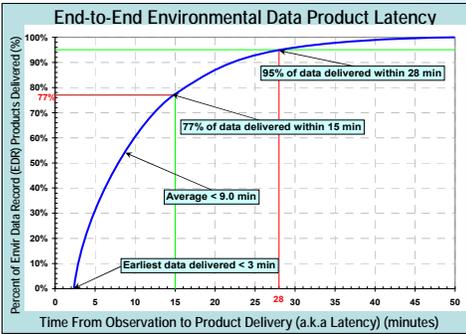
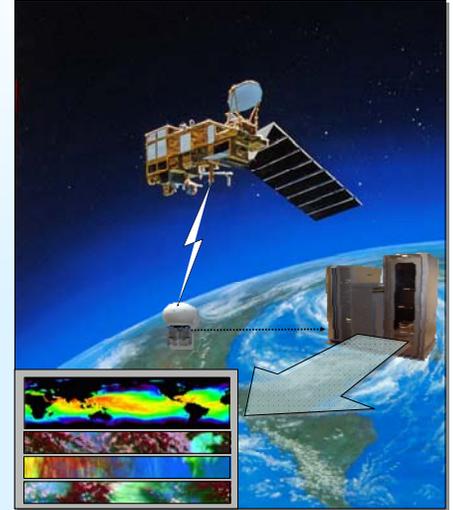
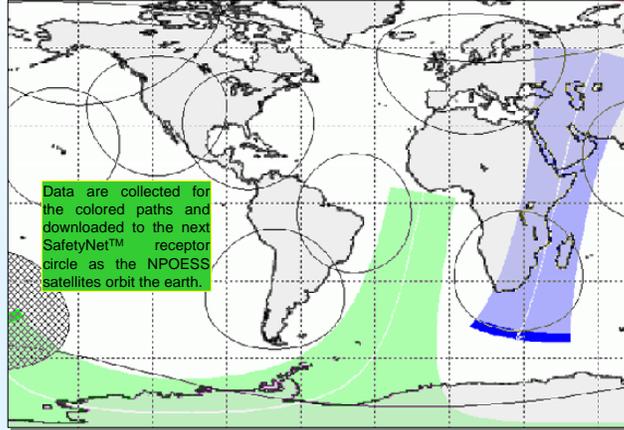
NPOESS' Key to Low Data Latency: SafetyNet™



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



Quality

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

Latency

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

Availability

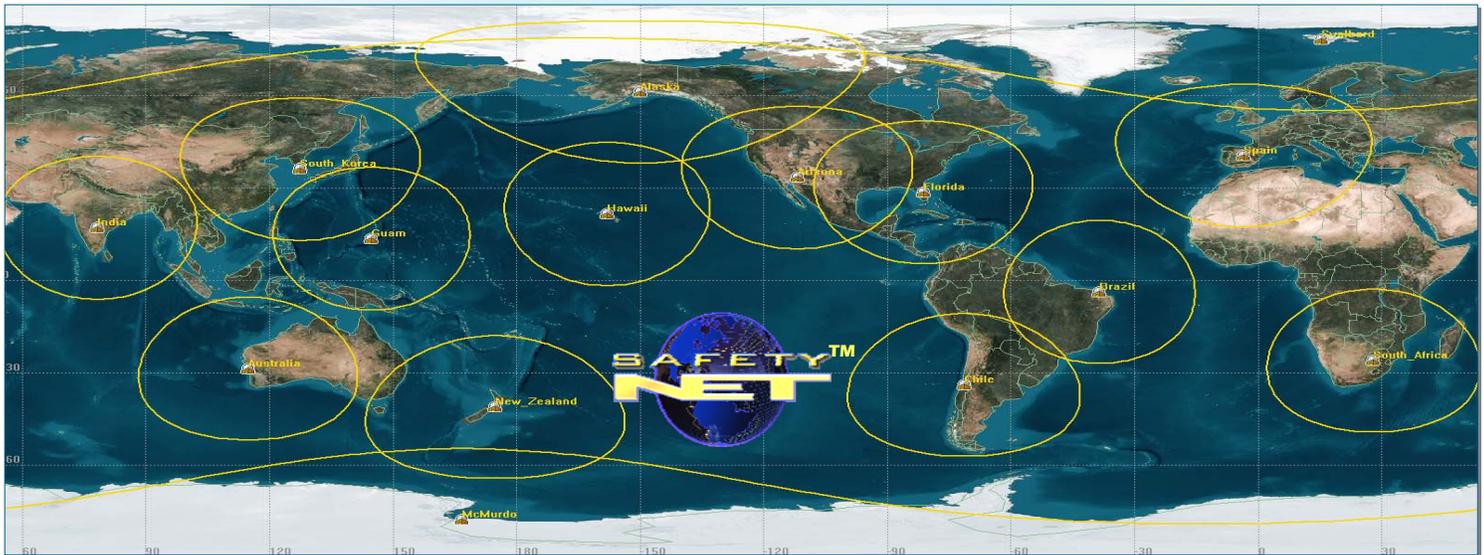
Support operational needs of all users: 99.95% data availability and 94.3% system availability

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

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



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SafetyNet is a Trade Mark of Northrop Grumman Space Technology

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