Press Release: Orbit Logic Delivers Scheduling Software to NOAA to Optimize Search & Rescue Coverage

GREENBELT, MD (April 2nd, 2019) – Orbit Logic announced today that it has delivered scheduling software to the National Oceanographic and Atmospheric Administration (NOAA) to optimize NOAA ground terminal contacts with Mid-Earth Orbit (MEO) satellites equipped to receive search and rescue distress alerts. The solution helps improve the timeliness and location accuracy of distress alerts received by the satellites, leading to faster and more effective responses by rescue personnel. Orbit Logic’s delivered solution will include STK Scheduler for contact schedule optimization, STK Pro for system modeling, STK Coverage for Dilution of Precision (DoP) computations, as well as a custom software plug-in to coordinate computations and generate updated contact schedules on demand.

There are a growing number of MEO satellites equipped to receive search and rescue distress signals. Distress signals received by the satellites get relayed to NOAA ground terminals, which send the signals on to appropriate rescue organizations. The number of MEO satellites on orbit now exceeds the number of NOAA ground terminals, so decisions need to be made about which satellites the terminals should point at to receive relayed distress calls.

Orbit Logic developed a COTS-based solution that uses STK Pro and STK Coverage to compute DoP for all possible satellite contact combinations, then passes this information to STK Scheduler. STK Scheduler uses this information to generate ground terminal pointing schedules optimized to provide the best possible geolocation accuracy of distress signals. STK Scheduler models the system as a set of prioritized communications tasks with weighted preferences for resource (satellite) combinations over time. Scheduler generates a new, optimized contact schedule within seconds, allowing for quick updates as conditions change.

“We are honored to have been selected by NOAA for this important project that automates and optimizes contact scheduling in support of NOAA’s search and rescue mission.” said Alex Herz, president of Orbit Logic. “It is always a good feeling to know that your software is being deployed to help save lives.”
STK Scheduler Gantt View (NOAA SARSAT)

STK Pro Schedule Visualization (NOAA SARSAT)
About Orbit Logic
Orbit Logic (www.orbitlogic.com) specializes in mission planning and scheduling solutions for aerospace and geospatial intelligence. Orbit Logic's operationally proven COTS products create better plans faster with fewer resources for all mission phases. Orbit Logic services are available to configure, customize, and integrate Orbit Logic’s mobile, web-based, desktop, and flight software applications to provide turn-key operational solutions that leverage the latest available technologies to meet customer goals and exceed their expectations.

About Analytical Graphics, Inc. (AGI)
Analytical Graphics, Inc. (AGI) (www.agi.com) provides commercial software for designing, developing and operating missions within the aerospace and national security communities. Our technology and support provide complete insight into the four-dimensional world by using extremely accurate analytical models backed by compelling visual simulations, so that users can make the best decisions about assets that move in space and time. AGI products are available as ready-to-use applications or development tools, and have been adapted to implement unique and open enterprise solutions to some of the hardest problems faced by our customers.

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