AIME® technology will allow aircraft operators to reduce costs through the removal of other navigation systems from the aircraft.

Northrop Grumman, for over thirty years a leading supplier of avionics equipment for commercial aviation, is pleased to introduce a new technology that addresses the GPS integrity problem: AIME® technology. AIME® (Autonomous Integrity Monitored Extrapolation), integrated with Inertial Reference Systems (IRS), can provide sole means of navigation for commercial aircraft. AIME® is integrated into our LTN-101 Global Navigation Air Data Inertial Reference System (GNADIRS) and certified for use on the air bus family of aircraft. This certification means reliable navigation anywhere in the world enroute, terminal and nonprecision approach without ground-based radio aids or predictive programs.

AIME® technology compensates for the inherent deficiencies of GPS by integrating GPS and IRS in a unique, patented algorithm. AIME® continuously analyzes available satellite and inertial signals. If the data’s integrity is compromised, AIME® automatically uses the aircraft’s position history to maintain accuracy and integrity. On-board predictive Receiver Autonomous Integrity Monitoring (RAIM) programs are not required.

AIME® technology will allow aircraft operators to reduce costs through the removal of other navigation systems from the aircraft (as approved by certification authorities) including VOR, DME, ADF, and LORAN. Further savings will be realized through improved operational procedures both enroute and in nonprecision and precision approaches.
AIME® Technology

Realizing the Promise of GPS

Essential to the success of AIME® technology is the ability to detect and exclude questionable data, which results in high integrity and availability. Extensive flight tests and simulations have established the superiority of AIME® in solving GPS integrity problems over other augmentation schemes, particularly compared to the main alternative, RAIM. As the charts below show, this superiority is due to its consistently higher levels of availability. Unlike RAIM, AIME® software provides 24 hour operational benefits and needs no augmentation.

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For more information, please contact:
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