

**NORTHROP GRUMMAN**



## News Release

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### Northrop Grumman and SELEX Galileo Celebrate 15 Years of Leadership In Infrared Countermeasures Technology Achievements

FARNBOROUGH – July 21, 2010 – In July 1995, a team of Northrop Grumman Corporation (NYSE: NOC) and SELEX Galileo engineers convened in Silverknowes, Edinburgh to begin development of a new, revolutionary infrared countermeasures system. This new system, developed for the U.K. Ministry of Defence, was intended to protect military pilots from the threat of shoulder-fired, heat seeking missiles, otherwise known as man-portable air defense systems (MANPADS).

The resultant Directional Infrared Countermeasures (DIRCM) system, developed and jointly produced by the two world-leading defense electronics firms, transformed military aircraft protection capabilities for both the U.S. Special Operations Command and U.K. Ministry of Defence. Today, 15 years later, the DIRCM system continues to set the standard for military aircraft protection.

In ceremonies today at the Farnborough International Air Show, officials of both companies marked the 15<sup>th</sup> anniversary of the DIRCM program by donating a DIRCM transmitter assembly previously flown on a Royal Air Force (RAF) aircraft to the RAF Museum in London. Participating in the ceremony were: Jim Pitts, corporate vice president and president of Northrop Grumman's Electronic Systems Sector; Steve

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Mogford, chief executive officer, SELEX Galileo; Jeff Palombo, sector vice president and general manager of Northrop Grumman's Land and Self Protection Systems Division; and Peter Dye, director general, Royal Air Force Museum.

"The U.K. Ministry of Defence originated DIRCM technology with their first investigations into the feasibility of producing a DIRCM system in 1989," said Palombo.

Northrop Grumman was competitively selected for the DIRCM development contract and shortly thereafter formed a strategic alliance agreement with SELEX Galileo, a Finmeccanica company, to further develop and produce the systems.

"DIRCM systems have been saving lives and are renowned for protecting U.S. and allied troops around the world from shoulder-launched, heat-seeking missile threats. The Northrop Grumman-SELEX Galileo team is well recognized as the industry leader in the production of DIRCM systems," Palombo added.

The combat-proven system functions automatically by detecting a missile launch, determining if it is a threat and activating a high-intensity laser-based countermeasures system to track and defeat the missile.

"We take pride in these 15 years of partnership with Northrop Grumman. The lessons learned from the design, manufacture and support of over 1,500 DIRCM systems, have allowed us to improve existing transmitter reliability and reduce its size and weight. We have exploited these experiences in the development of ECLIPSE, and look forward to further years of success," said Mogford.

The results of recent U.S. government reliability and characterisation tests on ECLIPSE have demonstrated the maturity of the Northrop Grumman-SELEX Galileo team's latest infrared countermeasure system that has been designed to meet the U.S. Army CIRCUM program requirement.

Today, the Northrop Grumman-SELEX Galileo team provides the most experienced laser IRCM development and production capability in the industry; with five generations of DIRCM systems developed, over 1,600 pointer trackers, and 1,750 lasers produced for 500 aircraft installations on 50 different aircraft types, including large and small fixed wing, rotary wing and tilt wing platforms.

SELEX Galileo is a leading provider of sensor systems delivering to its customers a distinctive benefit in airborne mission critical systems and a full ISTAR capability. With industrial presence in the UK, Italy and the U.S., the company builds on 60 years of experience on proprietary technologies to respond to the needs of those on the front line.

Northrop Grumman Corporation is a leading global security company whose 120,000 employees provide innovative systems, products, and solutions in aerospace, electronics, information systems, shipbuilding and technical services to government and

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