In LVC First, Northrop Grumman and US Air Force Link Fifth- and Fourth-Generation Fighters

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JOINT PACIFIC ALASKA RANGE COMPLEX, Alaska, Aug. 8, 2016 (GLOBE NEWSWIRE) -- Northrop Grumman Corporation (NYSE:NOC) and the U.S. Air Force have achieved the first integration of fifth- and fourth-generation fighter aircraft – a critical capability to prevail in combat – during a live, virtual and constructive (LVC) training event.

As part of Distant Frontier training at the Joint Pacific Alaska Range Complex, Northrop Grumman integrated two virtual F-22 Raptor fifth-generation fighters to fly and train alongside four live fourth-generation F-16 Fighting Falcons.

The F-16 aircraft were from the Air Force's 80th Fighter Squadron based at Kunsan Air Base, Korea, operating out of Eielson Air Force Base. The F-22s were operated by members of the 90th Fighter Squadron from simulators at Joint Base Elmendorf–Richardson in Anchorage.

They trained for air-to-air combat against four live F-16s from the 18th Aggressor Squadron based at Eielson Air Force Base.

"The 353rd Combat Training Squadron with great support from Northrop Grumman is spearheading efforts to integrate LVC elements into day-to-day training. As adversaries continually improve their capabilities, the ability to add LVC is critical to best train and prepare F-22 pilots for dealing with the full complement and degree of threats," said Col. Brian E. Toth, the 354th Operations Group commander at Eielson Air Force Base. The group's component units include the 353rd Combat Training Squadron and 18th Aggressor Squadron.

"LVC is vital for fifth-generation aircraft. It provides realistic threats and is capable of evolving to meet future training requirements," said Toth.

A predecessor to the large-scale, joint Red Flag-Alaska advanced aerial combat training exercise hosted at Eielson Air Force Base, Distant Frontier provides unit-level training for local and deployed units to enhance tactical interoperability.

"No aircraft goes to war alone. With our increasingly joint and networked approach, fighter integration training is extremely consequential to effective execution in combat," said Martin J. Amen, director, satellite and network operations, Northrop Grumman Mission Systems. "Although Distant Frontier is a small-scale training event, with this achievement Northrop Grumman has demonstrated that we can provide full-spectrum combat training and truly transform the way pilots train to fight."

The live F-16 and virtual F-22 participants were linked by the LEXIOS (LVC Experimentation, Integration and Operations Suite) system developed by Northrop Grumman. Through LEXIOS, virtual aircraft operated by actual aircrew members participate in the same airspace alongside their live counterparts via networked simulators at full security levels. Constructive – simulated forces in a simulated environment – components can also be used to augment the battlespace with a full complement of threats.

"The ability to provide combat air forces with LVC training at this level of realism as threat environments become increasingly complex and networking needs escalate is significant, particularly when we can also provide cost savings to the Air Force," said Amen.

Northrop Grumman is the prime contractor for the Air Force's Distributed Mission Operations Network (DMON), a system that enables dissimilar aircraft platforms located across the globe to seamlessly interoperate and train together in a realistic virtual environment. Northrop Grumman has been working on the Combat Air Forces Distributed Mission Training Operations and Integration program since its inception in 1999. LEXIOS builds and integrates elements of the DMON and enables live interaction.

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