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## Global Wars: The new future US killing machines

By: fromPortugal on: 12.12.2005 [14:19 ] (238 reads)



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*Northrop Grumman Corporation (NYSE:NOC) has successfully completed a **simulated exercise that demonstrated the simultaneous control of four X-47B unmanned aerial vehicles (UAVs) during U.S. Navy aircraft carrier operations.***


*The U.S. Air Force/Navy J-UCAS program will demonstrate the technical feasibility and operational utility of "**stealthy**" **land- and sea-based unmanned surveillance attack aircraft**, and provide the Air Force and Navy the option to acquire these systems early in the next decade.*

Northrop Grumman's X-47B J-UCAS Team Simulates Control of Four Unmanned Surveillance Attack Aircraft within Aircraft Carrier Airspace

SAN DIEGO, Dec. 9, 2005 (PRIMEZONE) — Northrop Grumman Corporation (NYSE:NOC) has successfully completed a simulated exercise that demonstrated the simultaneous control of four X-47B unmanned aerial vehicles (UAVs) during U.S. Navy aircraft carrier operations.

The exercise, conducted Sept. 28 at the Naval Air Warfare Center Weapons Division in China Lake, Calif., is part of Northrop Grumman's work on the Joint Unmanned Combat Air Systems (J-UCAS) concepts demonstration program.

Weather

**Baghdad**  

 MO, 12/12  
 +23..+25 °C  
 N, 3 m/s

**Basrah**  

 MO, 12/12  
 +24..+26 °C  
 NW, 3 m/s

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"This is a major milestone for the Northrop Grumman X-47B team," said Scott Winship, Northrop Grumman's X-47B program director. "We demonstrated the integration of multiple X-47Bs into carrier airspace using existing Navy flight and control procedures, which significantly increases the confidence of successfully introducing UAVs into normal carrier operations."

Using a surrogate aircraft which represented one X-47B, three additional simulated X-47B aircraft were successfully controlled during several flights using advanced mission-management software and air traffic control procedures currently used by Navy aircraft carriers.

The air traffic controller provided standard commands to a single mission operator, who in turn ensured all four aircraft safely operated within the simulated carrier's airspace.

The demonstration illustrated the controller's ability to guide all four aircraft through the approach, wave-off and traffic pattern procedures, while accomplishing proper spacing and air traffic de-confliction. The mission operator was able to monitor the entire process to ensure proper command response and advise the controller on aircraft response or performance limitations.

The U.S. Air Force/Navy J-UCAS program will demonstrate the technical feasibility and operational utility of "stealthy" land- and sea-based unmanned surveillance attack aircraft, and provide the Air Force and Navy the option to acquire these systems early in the next decade. **The X-47B design demonstrates a variety of foundational system capabilities including land- and carrier-based operations and automated aerial refueling.** The design also demonstrates key mission-requirement capabilities like **persistent surveillance and reconnaissance, all-weather precision targeting, and precision attack of fixed and mobile surface targets.**

The X-47B is Northrop Grumman's initial air-vehicle configuration for the modular X-47 system, which can support a broad range of advanced unmanned air-vehicle configurations and military operational performance requirements.

Northrop Grumman Integrated Systems is a premier aerospace and defense systems integration organization. Headquartered in El Segundo, Calif., it designs, develops, produces and supports integrated systems and subsystems optimized for use on networks. For its government and civil customers worldwide, Integrated Systems delivers best-value solutions, products and services that support military and homeland defense missions in the areas of intelligence, surveillance and reconnaissance; space access; battle management command and control; and integrated strike warfare.

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X-47 PEGASUS NAVAL UNMANNED COMBAT AIR VEHICLE (UCAV-N), USA

The Pegasus Unmanned Air Vehicle was initially developed under private funding by the Integrated Systems Sector of Northrop Grumman at El Segundo in California. Pegasus received its X-47A designation in June 2001.

The X-47A provided a proof of concept for the Defense Advanced Research Projects Agency (DARPA) and the US Navy UCAV-N program, and is Spiral 0 in the spiral development program which was targeted towards US Navy requirements. A similar program managed by DARPA and the US Air Force covered the development of the Boeing X-45 targeted towards the US Air Force requirement. DARPA announced the Joint Unmanned Combat Air Vehicle (J-UCAS) program to meet both the Air Force and Naval requirements. The Spiral 1 development phase under the J-UCAS program includes the design of the improved demonstrator air vehicles, X-45C and the X-47B.

The roll out ceremony of **the proof-of-concept X-47A vehicle was in July 2001** and the **first flight was successfully completed in February 2003.**

**The X-47B is a larger variant of the X-47A. In August 2004, DARPA awarded the contract to Northrop Grumman for three X-47B demonstrator UCAVs and an operational assessment phase to last from 2007-09.** In addition to developing the air vehicle and the vehicle's autonomous control systems, the contract also covers the development of a UCAV mission control system.

The vehicles will demonstrate the feasibility of meeting navy and air force UCAV performance requirements **The performance parameters include the capability of sustaining a 2-hour loiter time at a target distance of 1,850km, and also a combat mission radius of 2,400km (1,000nm) with a mission payload of 2,040kg.**

**Construction of the X-47B began in June 2005 and the first flight is scheduled to take place in October 2006.**

#### X-47 PEGASUS AIR VEHICLE

The airframe is a stealthy planform design. It is diamond-kite shaped with a 55° backward sweep on the leading edge and a 35° forward sweep on the trailing edge. The X-47A has a wing span of 8.47m and is 8.5m long; the dimensions of the X-47B have yet to be finalised.

Scaled Composites Inc of Mojave, California, were contracted to manufacture the all-carbon composite airframe. The air vehicle has no tail or vertical fin. Instead of a traditional rudder for yaw control, the upper and lower surfaces are each fitted with two sections of moving surfaces. A large elevon is clearly visible at the mid-section of each trailing edge.

**The vehicle is robustly built for carrier take-off and landings and uses a conventional wheeled take-off and landing with an arrestor hook.** The retractable tricycle type landing gear consists of a single nose wheel, twin wheel main landing gear and a fully retractable arrestor hook. Smiths Aerospace is providing the landing gear for the X-47B.

#### X-47 PEGASUS AVIONICS

The Pegasus is equipped with an avionics suite supplied by BAE Systems Platform Solutions of Johnson City, New York. The Avionics and Vehicle Management Computer performs flight control processing, autopilot control, engine control processing, mission command and control, navigation, and other functions.

The computer features an embedded, open-architecture CsLEOS real-time operating system which uses "brick-wall" time and memory partitioning to allow multiple applications to run on the same system without interfering with each other. The system also provides multiple scheduling modes, allowing users to switch between different schedule profiles in real-time.

The navigation systems include the United States Navy Shipboard Relative Global Positioning System (SRGPS) automatic landing system.

#### X-47 PEGASUS ENGINE

The Pegasus is powered by a single Pratt and Whitney Canada JT15D-5C turbofan engine rated at 14,19kN. The air vehicle carries 472kg of fuel but has a maximum capacity of 717kg of fuel for long-range operations or for increased loiter times.

[link](#)

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*With economic power, US making more and more sophisticated killing machines.*

*If the world gives US the time to build all the weapons they are dreaming to build, US can think in retaining their supremacy in more years to come.*

*When will US break in economic terms? because if they don't, they will teach anyone that have the "arrogance" to think it can act*

against US wishes.

Comments by FromPortugal

1 comments

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### The US

by Mike-Malaysia on 12.12.2005 [15:32 ]

can build sophisticated weapons, but I would hazard a guess that countermeasures to this fly by wire tech can be rendered sueless by simple technology. I refer to signal jamming. There was a report on this forum a few days ago that Libya managed to block large numbers of signals. What's to stop someone from doing something similar to knock out such planes?. Of course the signal jammers would be detectable and therefore targets themselves but still, a few good anti-aircraft missiles near the signal jammers would be a reasonable proposition as well as providing general border defense.

I get the point of the article though. There are powerful weapons that are in the R&D stage that would give the US a potent first strike capability.

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Qahtan Square,  
Baghdad

Nov 25: One by  
roadside bomb in  
Samarra

Nov 25-26: Sunni cleric  
kidnapped, shot, in  
Basra

Nov 24: 20-31 by suicide  
car bomb, Mahmudiya

