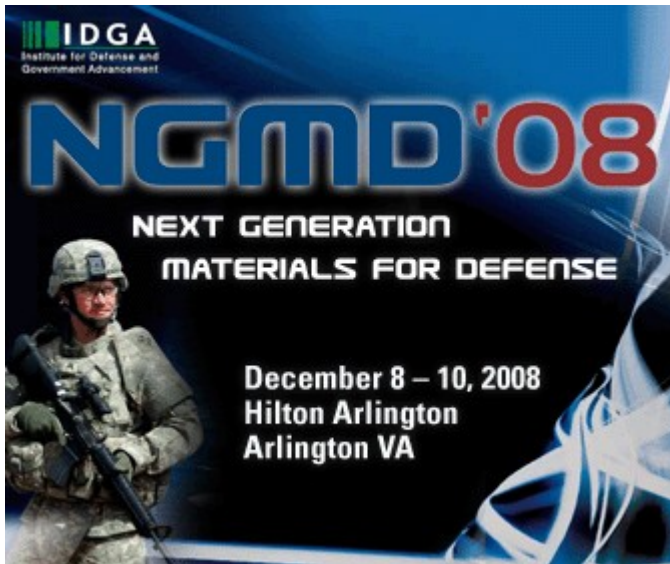


# CENTCOM Looks to Boost ISR Capabilities in 2008-2009

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RU-38 Twin Condor  
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The nature of the current war puts a high premium “persistent, pervasive stare” capability, also known as technical Intelligence, Surveillance, and Reconnaissance (ISR). America has been reminded (yet again) that these tools [cannot replace human intelligence and social networks](#), but when used properly they create significant advantages for a counter-insurgency force. Right now, about 80% of the U.S. military’s aerial ISR assets – from UAVs to planes like the U-2 – are busy in the U.S. Central Command (CENTCOM) area of operations. Most of those are in Iraq and Afghanistan.

Defense Secretary Robert Gates has been pushing the ISR idea. He’s pressing the US military to speed up procurement, and deploy more ISR platforms in theater. He’s also putting his money where his mouth is. A task force was set up, and approval was given to “reprogram” funds from other areas, in order to fund these additional ISR projects. Congressional defense committees have now approved a FY 2008 request to reprogram \$1.2 billion. [According to Pentagon sources](#), these monies will buy 21 manned ISR aircraft,

add to the RQ-11 Raven, RQ-7 Shadow, MQ-5 Hunter, MQ-1 Predator, and MQ-9 Reaper UAV systems in theater, and buy more Scan Eagle UAV detachments for the Navy and Marines.

These changes will do much more than just improve surveillance...



M270 firing M30 GMLRS  
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The nature of modern surveillance and targeting turrets, and the growth of laser and GPS-guided precision munitions within the Army, is changing the nature of battlefield close air support. Laser targeting can cue rounds like the Hellfire missile, carried by many drones. GPS geolocation plus laser rangefinding can pass targets on to M982 Excalibur guided artillery shells, M30/M31 GMLRS guided rockets with a range of 45-55 miles / 70-85 km, or even TACMS missiles fired from MLRS launchers up to 187 miles/ 300 km away. ATK recently tested a [GPS-guided clip-on kit for 105mm artillery](#) shells, and [laser guided 120mm mortars](#) are debuting from several manufacturers around the world.

All of these artillery capabilities are essentially new. Laser-guided 155mm Copperhead shells existed in 1991, but their expense, performance, and low numbers made their use prohibitive. The expense curve for guided artillery has fallen sharply, and is expected to fall further as electronics continue to get cheaper and orders ramp up. Meanwhile, the need for that kind of precision continues to rise. The USA's counter-insurgency doctrine emphasizes the role of allied troops as protectors of the populace, and that role cannot afford indiscriminate targeting.

As these artillery capabilities become more pervasive in the field, they change the way other assets are used. ISR assets, in particular.

An RQ-7 Shadow UAV is too small to carry currently fielded weapons, and a Cessna 208B Caravan can be armed but generally isn't. On the other hand, modern surveillance & targeting turrets plus modern guided artillery weapons mean that they may not have to be armed, in order to become very dangerous. Meanwhile, a UAV like the MQ-9 Reaper can carry fighter-class counter-insurgency weapon loads, as well as its own surveillance equipment. All on a platform that has less situational awareness than a manned Cessna, but can remain on station several times longer than any manned aircraft.

No one element of this mix is "the answer"; it's the overlapping capabilities of artillery, manned aircraft, UAVs, and supporting networks and people that create a cost-effective and battlefield-effective ISR/CAS solution.



IqAF Cessna 208B  
(click to view full)

On the manned ISR aircraft front, a number of candidates suggest themselves as the USA seeks to expand its fleet.

Sikorsky's subsidiary Schweizer makes [the RU-38 Twin Condor](#), with special features that include long endurance, swappable ISR payload slots, and silent operation so surveillance targets receive no warning. [The USA's MARS contracts](#) already add contractor-operated, kitted-out Dash-7 aircraft to enhance its surveillance fleet. The Iraqis have been operating a combination of Seeker observation aircraft and [Cessna's 208B Caravans](#) with some success, and have ordered a dedicated ISR version of the Hawker [Beechcraft King Air 350/C-12](#). Iraq's Seeker aircraft are very unlikely to be chosen for an American role, but every other model mentioned would represent a reasonable choice.

The future can be expected to feature more of the same on the ISR front. Secretary Gates recently approved task force recommendations to reprogram funds in FY 2009 as well. Early foci for that reprogramming reportedly include supporting any additional equipment bought in 2008, and additional personnel to process, exploit and disseminate intelligence gathered. The [Pentagon DefenseLINK release](#) also mentioned "an additional 30 C-12 aircraft" as a specific item; these planes can be used as light cargo/utility aircraft, and can also be equipped with varying levels of ISR equipment for surveillance work.

### Additional Readings

- NY Times (June 22/08) - [At Odds With Air Force, Army Adds Its Own Aviation Unit](#). Project ODIN includes both manned C-12s and UAVs like the MQ-1C SkyWarrior and RQ-7 Shadow. *"The work of the new aviation battalion was initially kept secret, but Army officials involved in its planning say it has been exceptionally active, using remotely piloted surveillance aircraft to call in Apache helicopter strikes with missiles and heavy machine gun fire that have killed more than 3,000 adversaries in the last year and led to the capture of almost 150 insurgent leaders."* See also...
- CASR (June 22/08) – [Counterinsurgency Legacy – US Army Aviation Supports its Own: US Air Force turns out to be too Tardy to be Tactically Useful](#). Excerpts and background the the NYT article. The US Army is reportedly seeking money to raise a similar unit in Afghanistan by late 2008/early 2009.
- Edwards AFB, va Google Cache (My 22/06) – [Engineer takes flight testing to fight, wins award](#). Discusses the C-12 Horned Owl variant, part of Project ODIN.

- Aviation Week (May 8/05) – [Rise in Suicide Attacks in Iraq Propels Search for Better IED Detection](#). Includes details re: the C-12R Horned Owl aircraft, with ventral APY-8 Lynx radars and electro-optical sensors.