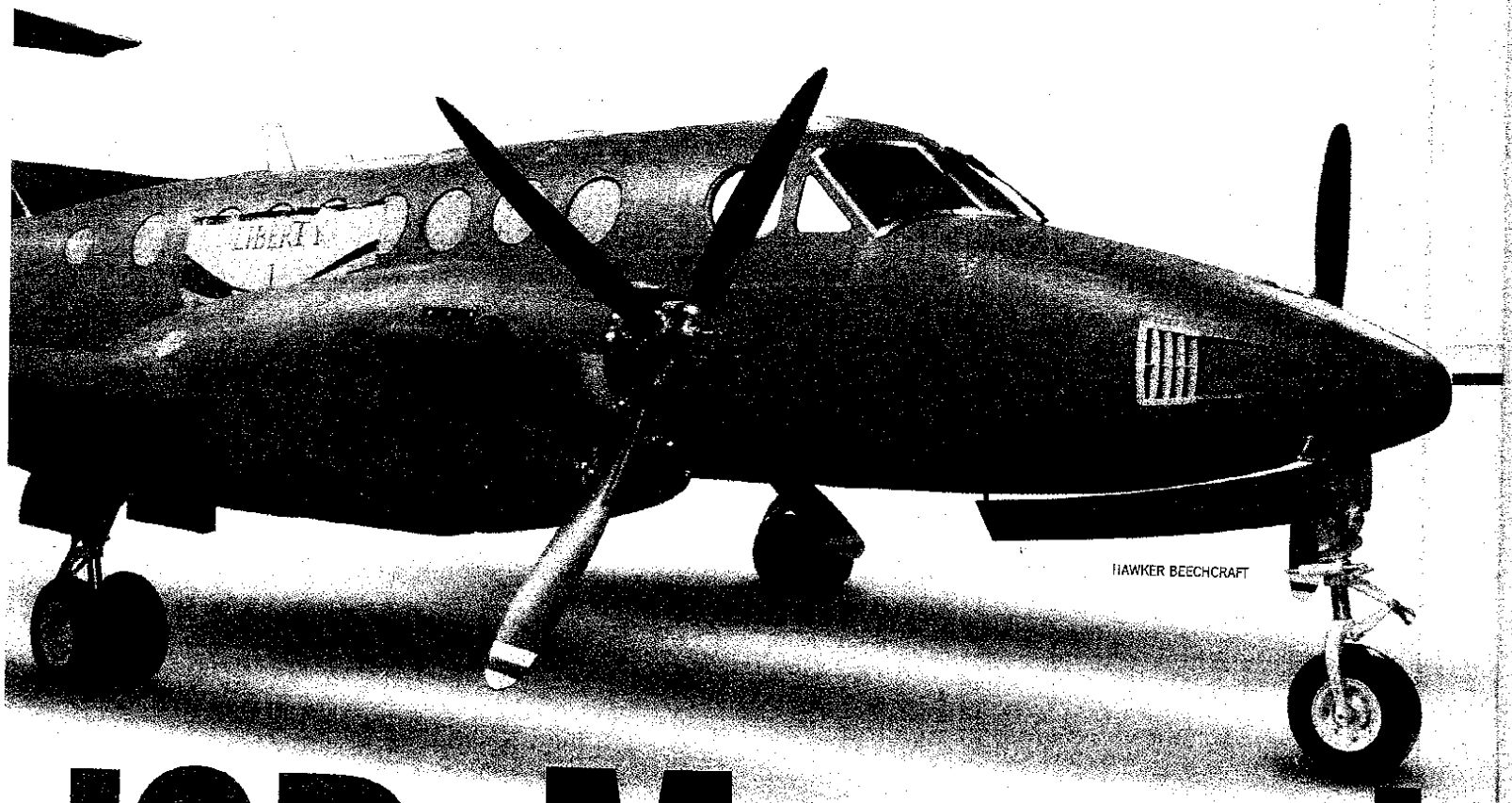


ISR: Manned

By Robert W. Moorman

In April, two top U.S. Air Force generals traveled to the Hawker Beechcraft plant in Wichita, Kan., for the ceremonial delivery of the first Project Liberty aircraft — the C-12 passenger planes the Pentagon is equipping with UAV-style full-motion-video camera pods as part of its intelligence surge to Iraq and Afghanistan.

A year earlier, U.S. Defense Secretary Robert Gates had used the term "pulling teeth" to sum up his effort to convince the U.S. military to rush ISR equipment to the field. Gates, in the view of most observers, was referring to the pressure he was placing on the Air Force to deliver more Predator and Reaper UAVs.

In that turning-point talk at Maxwell Air Force Base, Ala., Gates announced formation of an ISR task force to find a way around the UAV shortage. Air Force special operations commanders were beginning to fly Predator UAVs; the mainstream Air Force insisted it was pushing hard to fly more of the aircraft. If so, the efforts were not meeting the demand for full-motion video. Within weeks, the Pentagon ordered the Air Force to begin work on a fleet of 37 Liberty aircraft, named after the World War II cargo ships. With an expected cost of $860 million, this fleet of traditionally piloted planes, known as MC-12Ws, would be the largest single element of multibillion-dollar intelligence surge which also includes new sensor pods for UAVs and other equipment.

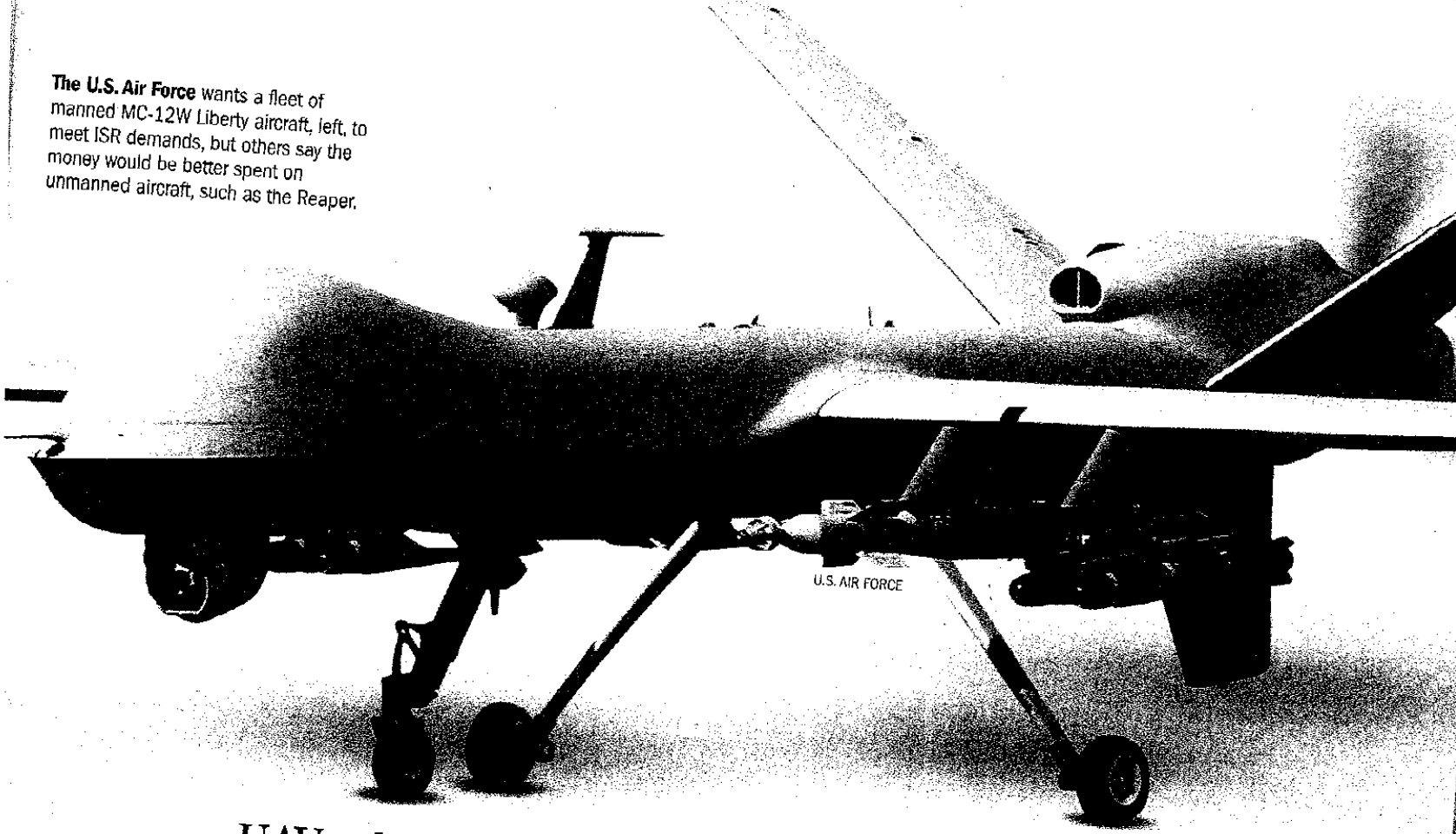
If UAV advocates have their way, congressional deliberations over the 2010 budget will play out much differently than last year, when Congress allocated $460 million for the first of those aircraft with little or no debate. Rather than spend more money on those aircraft or similar proposals, some officials inside and outside of government would rather the Pentagon figure out, once and for all, how to deliver enough UAV coverage to meet the demand for intelligence in Afghanistan and Iraq.

Ground commanders and Gates had pushed so hard for ISR that it was difficult for anyone to question the Liberty planes.

"Everyone wanted to support the war fighter," one congressional staffer said. Lost, in the view of this staffer, was the big picture. "The ISR Task Force itself said that a Predator is worth at least two-and-a-half C-12s in terms of [full-motion video] productivity — not even considering the life cycle costs of C-12s," the staffer said.

With the White House poised to send up to 10,000 additional troops to Afghanistan beyond the 17,000 authorized in February, the question of how best to expand ISR coverage — by unmanned or manned aircraft — is likely to remain a key policy issue.

In the months since his Maxwell speech, Gates has said both manned and unmanned



U.S. AIR FORCE

The U.S. Air Force wants a fleet of manned MC-12W Liberty aircraft, left, to meet ISR demands, but others say the money would be better spent on unmanned aircraft, such as the Reaper.

UAV advocates question U.S. Liberty aircraft funds

vs. unmanned

ISR would be required. In a nationally televised budget briefing in April, Gates said the Pentagon's long-standing goal to establish 50 continuous Predator and Reaper flight patterns, or orbits, over Iraq and Afghanistan by 2011 would be "permanently funded in the base budget," as opposed to the supplemental war budgets the Bush administration had relied on. Other funds would go toward increasing "manned ISR capabilities" such as the C-12 turboprop aircraft "deployed so successfully" by the Army's Task Force ODIN (Observe, Detect, Identify, Neutralize), Gates said.

Under ODIN, Army C-12s and UAVs have scoured roadways for evidence of improvised explosive devices, and attempted to neutralize them through missile strikes or by identifying members of bombing networks and warning them to stop. ODIN has now begun operations in Afghanistan, a congressional staff member said.

A retired general who asked not to be named said Pentagon officials should rethink the Liberty aircraft program and other efforts that could be on the drawing board. If you're using the C-12s to provide "persistence in ISR coverage, then it is a step backward," he said. "We ought to be advancing the state-of-the-art of autonomous systems."

There are other concerns. Army pilots fly ISR-capable C-12s such as those used by Task Force ODIN. As such, "it's illogical to then develop an [Air Force] ISR C-12 — the MC-12W," the congressional staffer said. That approach amounts to creation of another ISR "tribe," he said. Task Force ODIN, for example, has relied on Army aircraft and UAVs instead of Air Force Predators. Better, in this staffer's view, would be to apply ISR coverage through a joint forces air component commander.

Officially, the Air Force and Army support the C-12 acquisition. "The Air Force supports the C-12 program because it provides immediate support to the ground forces and increases our ISR capabilities," said Air Force Lt. Col. Tadd Sholtis, a spokesman for the secretary of the Air Force. "The secretary, Congress, joint commanders and, despite reports to the contrary, the Air Force, have emphasized the importance of expanding ISR capability." The MC-12 acquisition, Sholtis said, is a "viable — although not the only — solution to the Air Force's ISR needs."

Pressed, Sholtis said: "Yes, we need more [UAVs], which is why through the budget process we've programmed to buy more. I just don't want to promote a misconception that buying more platforms alone makes ISR available."

Whether manned platforms are being acquired to supplement UAVs for ISR coverage, fill the void until more UAVs are manufactured and delivered, or both, are questions not yet fully answered. In his Maxwell speech, Gates seemed to see the controversy coming. He planted himself on the side of UAVs even while laying the groundwork to

buy more manned ISR aircraft. He recalled standing "by flag-draped coffins" at Andrews Air Force Base during his tenure as CIA director from 1991 to 1993 to salute those who had died gathering intelligence that could have been gathered by UAVs. "In 1992, however, the Air Force would not co-fund with CIA a vehicle without a pilot," he said.

At the same time, some in the Army continue to stand by their piloted ISR aircraft. "These manned platforms are more effective than unmanned platforms currently," said Army Lt. Col. James Cutting, the service's unmanned air systems division chief. "They don't replace the requirement for the unmanned systems, nor does the unmanned system replace the requirement for manned systems. They are complementary, not contradictory. I will acknowledge there is some overlap."

Some officials say it time to consolidate ISR management under one roof, from acquisition to operations.

Cutting, who recently returned from his second deployment in Iraq, said there has been "phenomenal growth" there in the use of unmanned systems by the Army and Marines, and there remains an "insatiable demand" for aerial reconnaissance to aid ground commanders.

The greatest demand is for Predator and Reaper-class UAVs because these aircraft fly high enough to see over the horizon, they are large enough to carry Hellfire missiles in addition to their sensors and they can stay in the air longer than manned aircraft.

Most Predators and Reapers are controlled remotely by Air Force pilots at Creech Air Force Base, Nev. Over the last several years, the Air Force special operations community and the Army have been developing their own Predator-like forces.

Since last year, the Air Force's 3rd Special Operations Squadron, which is part of Air Force Special Operations Command, has been in the process of moving 250 personnel from Nellis Air Force Base, Nev., to a permanent Predator control facility at Cannon Air Force Base, N.M. A spokesperson declined to provide details about the move, beyond saying it would be completed shortly.

Having a Predator squadron within U.S. Special Operations Command "permits the development of Predator tactics, techniques and procedures specifically to support special operations," the Air Force Special Operations Command said in a prepared statement. It also allows Predator operators and the 3rd Squadron to "habitually train and operate together."

The Army also plans to field its own Predator-class UAVs — to be called Extended Range Multi-Purpose (ERMP) UAVs, or Sky Warriors. As part of its contribution to the ISR surge, the Army plans to send four preproduction "quick-reaction-capability" versions of these aircraft to Iraq and/or Afghanistan shortly. A second platoon would be sent in 2010, said Lt. Col. Shawn Gresham, the Army's ERMP product manager.

Unlike the Air Force, which controls its Predators from halfway around the world, the Army plans to control its Sky Warriors from ground stations located close to where the aircraft are flying, so that UAV operators live and work with the soldiers they are supporting. The final version of the ERMP will have an automated, differential-GPS-based landing system to accommodate non-pilot operators. Testing of the new auto-land system has produced mixed results.

"It's not perfect yet," Cutting said, "but it's really good."

While the Pentagon is adding more manned ISR-capable platforms to the mix, General Atomics Aeronautical Systems, maker of the Predators, Reapers and Sky Warriors, says it has production capacity to spare. The company, a privately owned subsidiary of General Atomics, recently moved into a 1.5 million-square-foot final-assembly facility.

The new facility will "about double our capacity as far as floor space goes," said Thomas Cassidy, president of the company's Aircraft Systems Group. Doubling production will require adding a few hundred more people to the current engineering and production work force of 3,400 and another 300 to 400 employees to help make the Lynx Radars carried by UAVs and traditionally piloted planes.

The San Diego-based company on average produces just over 2½ Predator B Reapers and one Sky Warrior per month. Cassidy said the company could conceivably produce up to 36 Predators-class aircraft monthly. When the company moved to the new assembly site in February, the facility was operating at 30 percent capacity.

General Atomics also expects brisk demand for the pure-jet-propelled version of the Predator, called the Avenger or C version. The company flew it for the first time in April. The aircraft is slightly larger and faster than the Reaper, and is designed to carry a "wide-area surveillance" system within its internal bay for "special mission applications," the company said.

As to the acquisition of C-12s by the Air Force, Cassidy didn't mince words: "I can assure you it has nothing to do with our capability to deliver the airplanes. That is not the issue," he said.

Four years ago, the Air Force was only buying two Predators per year. "Now it is buying three per month," Cassidy said. The company was slated to deliver its 200th Predator in April.

Last year, the U.S. Government Accountability Office sparked a controversy within the military over whether General Atomics was able to meet the growing demand for its aircraft. The GAO concluded that the U.S. Navy was justified in picking a version of the Northrop Grumman Global Hawk UAV as the aircraft for its Broad Area Maritime Surveillance system, which by 2019 would cover most of the world's major oceans. Lockheed Martin and General Atomics had proposed a maritime version of the Predator called the Mariner. In rejecting a bid protest by Lockheed Martin, GAO noted reports of "poor past performance on very relevant work, including prior GA-ASI contracts for Predator-related work." In addition, the report citied problems in "managing workload" and with "properly staffing a project."

In an earlier interview, Cassidy said much of the criticism was "absolute nonsense" and the rest reflected a slice of time almost two years ago, during the BAMS competition. Many improvements have been made since. "We are ahead of schedule on everything, all the production. We have been ahead of schedule for a very long time," he said then.

Complicating attempts to field more Predator-Reaper UAVs is a growing need for additional pilots to fly them.

Air Force policy has dictated that only experienced Air Force pilots be allowed to fly UAVs, but the service has a test program underway to train new officers to fly UAVs as their first and only aircraft. Another proposal calls for training retired commercial airline pilots to fly UAVs. Asked about this proposal, an Air Force spokeswoman said only, "This is not confirmed as of yet."

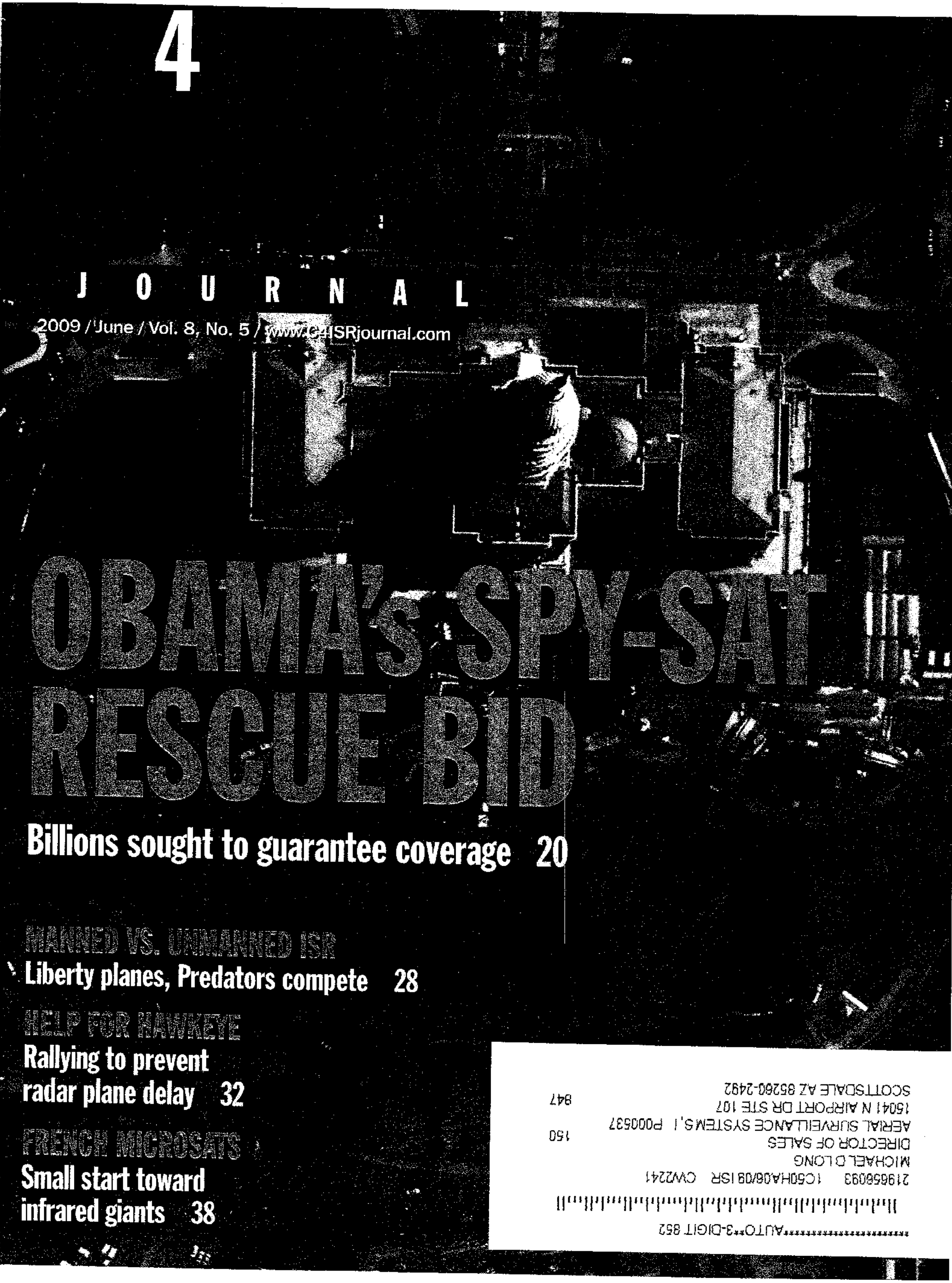
The Army allows enlisted personnel and warrant officers to fly UAVs. Gates has said the policy of only allowing pilots to fly UAVs "may require rethinking."

Rethinking, perhaps. But the Air Force is reluctant to change that policy, particularly as it relates to flying in a combat area of operations, said a number of experts. Some flexibility might be found in allowing nonofficers to fly UAVs in friendly operations areas, according to one official.

To answer these questions and others, some officials say it is time to consolidate ISR management under one roof, from acquisition to operations. The proposal has resurfaced since the Air Force first floated the concept in 1993.

"If you want to optimize the acquisition, development and fielding of ISR systems, it is worthwhile to go back and take a look at the structure," the retired general said. "If we're going to share information, you have to explore this kind of structure." ■

Ben Iannotta contributed to this report.



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