

Top

Revelations in Haiti

The Side Effects of New Priorities for Remotely Piloted ISR Aircraft

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The RQ-4 Global Hawk, MQ-1 Predator, and other remotely piloted intelligence, surveillance, and reconnaissance (ISR) platforms typically perform combat missions to defeat improvised explosive devices or locate and neutralize enemy forces. However, the US response to the devastating earthquake near Port-au-Prince, Haiti, on 12 January 2010 challenges the paradigm that ISR simply counteracts threats.¹ In response to the Haiti disaster, the international community initiated a massive recovery and relief effort.² The United States alone deployed more than 22,000 military personnel, 30 ships, and 300 aircraft in support of Operation Unified Response.³ The deployed aircraft included several manned and remotely piloted ISR platforms.

Unified Response was the first international deployment of remotely piloted ISR assets in support of a humanitarian operation although some of these assets assisted domestically after Hurricane Katrina.⁴ The RQ-4 and MQ-1 provided time-critical imagery support and overwatch for military and civilian relief workers in Haiti. However, use of these military assets to support humanitarian operations complicates future decisions regarding their employment. A complication emerges when remotely piloted aircraft (RPA) tackle problems beyond their traditional roles of finding, fixing, tracking, and engaging targets. Specifically, such a new role gives policy makers, war

fighters, and the public a different perspective of ISR. Providing humanitarian support via remotely piloted ISR platforms contests the established paradigm by creating debate about when and how to employ these assets. Unified Response reveals that the United States *can* respond to international humanitarian operations with ISR aircraft whenever decision makers choose to do so. Consequently, the operation demonstrates that the ISR community must be prepared to conduct these operations with the necessary manpower, support, and equipment.

The “When” Challenge

The calculus for determining when the United States should employ ISR RPAs is influenced by these aircraft’s operational benefits of rapid deployability, long endurance, and lack of risk to personnel, which may persuade policy makers to use them to aid foreign states when disaster strikes. However, the prospect of using scarce ISR platforms for humanitarian operations creates a quandary for decision makers, who must determine priorities for supporting combat and noncombat operations, and for ISR operators, who must execute those priorities.

For example, the day the Haiti earthquake occurred, the Air Force had deployed an RQ-4 to support combat operations in Iraq and Afghanistan. Because

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Report Documentation Page

Form Approved
OMB No. 0704-0188

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|--|------------------------------------|---|-----------------------------|---------------------|---------------------------------|
| 1. REPORT DATE 2011 | 2. REPORT TYPE | 3. DATES COVERED 00-00-2011 to 00-00-2011 | | | |
| 4. TITLE AND SUBTITLE Revelations in Haiti: The Side Effects of New Priorities for Remotely Piloted ISR Aircraft | | 5a. CONTRACT NUMBER | | | |
| | | 5b. GRANT NUMBER | | | |
| | | 5c. PROGRAM ELEMENT NUMBER | | | |
| 6. AUTHOR(S) | | 5d. PROJECT NUMBER | | | |
| | | 5e. TASK NUMBER | | | |
| | | 5f. WORK UNIT NUMBER | | | |
| 7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Air Force Research Institute (AFRI), Air & Space Power Journal, 155 N. Twining Street, Maxwell AFB, AL, 36112 | | 8. PERFORMING ORGANIZATION REPORT NUMBER | | | |
| 9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES) | | 10. SPONSOR/MONITOR'S ACRONYM(S) | | | |
| | | 11. SPONSOR/MONITOR'S REPORT NUMBER(S) | | | |
| 12. DISTRIBUTION/AVAILABILITY STATEMENT Approved for public release; distribution unlimited | | | | | |
| 13. SUPPLEMENTARY NOTES | | | | | |
| 14. ABSTRACT | | | | | |
| 15. SUBJECT TERMS | | | | | |
| 16. SECURITY CLASSIFICATION OF: | | | 17. LIMITATION OF ABSTRACT | 18. NUMBER OF PAGES | 19a. NAME OF RESPONSIBLE PERSON |
| a. REPORT unclassified | b. ABSTRACT unclassified | c. THIS PAGE unclassified | Same as Report (SAR) | 8 | |

Pres. Barack Obama ordered an aggressive response by the US government to the Haiti disaster, including the allocation of ISR assets to United States Southern Command (USSOUTHCOM) for humanitarian operations in that country, the RQ-4 priority for Unified Response temporarily exceeded that of US Central Command (USCENTCOM) for replacing its RQ-4 aircraft in support of fully engaged combat forces.⁵ It is possible that future priorities may prove more ambiguous, complicating the division of ISR assets between combat and noncombat operations. Competing policy choices between humanitarian and combat operations do not constitute a new concept, but some decision makers do not consider situations like the one in Haiti a military priority at all. Regarding the response to Hurricane Katrina, a domestic disaster, a House of Representatives committee report observed that the military's sole responsibility involved fighting and winning America's wars.⁶ Such thinking reflects an enduring debate concerning the use of weapons of war for operations other than war. However, the new expectation for a US response to international disasters now includes ISR, and any questions concerning its usefulness for humanitarian operations have been answered.

Employing remotely piloted ISR platforms during such operations yields multiple benefits for the United States, not only by enhancing national security but also by increasing US moral authority and strengthening international friendships by assisting people in need. Furthermore, policy makers demonstrate to the American people that their investment in weapon systems is useful for a wide range of missions, including humanitarian operations. Additionally, the military shares information with nongovernmental organizations (NGO), compensating for shortfalls in their capabilities. This symbiosis fosters closer relationships between the military and relief organizations with which the military often partners in a variety of situations.⁷ If policy makers assign humanitarian opera-

tions a higher priority than combat operations in order to attain the benefits mentioned above, then ISR operators should expect an expanded role in future US responses to international disasters.

The "How" Challenges

Like the ISR operators in Unified Response, their counterparts in future situations that require ISR support must overcome several obstacles before they can successfully conduct an expanding mission set which encompasses humanitarian operations. First, these personnel must deal with an increased operations tempo that may strain finite data collection and exploitation capacity. The pool of analysts, as well as their specialized equipment, that dynamically collects and exploits ISR data as usable intelligence represents a critical but limited resource. Therefore, additional, concurrent, multitheater ISR sorties—along with varying mission types (i.e., a mixture of combat and humanitarian operations) that demand different analytical emphases—will likely strain these limited mission-management and exploitation resources. Second, as the Air Force continues to increase the pace of distributed ISR operations, personnel who perform missions will bear additional workloads and psychological stresses.⁸ Third, ISR operators who disseminate unclassified intelligence must deal with the fact that standard declassification procedures for releasing large amounts of data within hours or even minutes of collection do not exist for aircraft like the RQ-4. Operation Unified Response reaffirmed the truism that the effectiveness of intelligence depends in part on its timeliness.

To address the first and second concerns, mentioned above, the Air Force needs to assign a sufficient number of ISR operations professionals to current and emerging scenarios, possibly including humanitarian operations. Moreover, the service should commission a study of ISR operators for the purpose of developing a baseline under-

standing of problems associated with conducting continuous distributed ISR missions. Perhaps future or concurrent studies could concentrate on other types of distributed missions, such as those conducted by space personnel—a community highly experienced in distributed operations.⁹ The third issue justifies combatant commands' establishing uniform declassification standards to alleviate confusion in the event of another Haiti-type disaster that may call for prompt declassification of a substantial amount of intelligence. Additional or changing ISR priorities require a full-spectrum solution that considers not only hardware but also the software, processes, and human aspects of distributed ISR operations.

ISR personnel must contend with an upswing in operations tempo. By 2015 the Air Force expects to have at least 380 ISR aircraft, about 50 percent more than its current inventory of 250; this growth—primarily in remotely piloted platforms, combined with the possibility of more Haiti-like contingencies—will drive a need for more personnel to perform analytical, flight, and mission-management duties.¹⁰ In a recent study, the Government Accountability Office identified mission-management and analytical capacities as critical ISR shortfalls, noting that “since 2002, [the Department of Defense] has rapidly increased its ability to collect ISR data in Iraq and Afghanistan; however, its capacity for processing, exploiting, and dissemination is limited and has not kept pace with the increase in collection platforms and combat air patrols.”¹¹ Lt Gen David Deptula, retired, former Air Force A-2 (intelligence), best characterized the situation: “In the not-too-distance [*sic*] future, we'll be swimming in sensors and drowning in data.”¹² RPAs create a need for more analysts since they fly longer sorties than manned aircraft and therefore collect much more data, which analysts must transform into intelligence. The ISR shortfalls identified by the Government Accountability Office are reflected in human terms by the number of ISR mission commanders and analysts available to collect and inter-

pret data from ISR platforms networked to the Air Force distributed common ground/surface system (DCGS).¹³ Not only analysts but also pilots, sensor operators, and mission intelligence coordinators of the 12th and 99th Reconnaissance Squadrons and the 432nd Air Expeditionary Wing feel the effects of increased operations tempos during contingencies such as Unified Response.

The DCGS functions as the brain behind the ISR platforms that supply inputs to the overall system. The platforms, coordinated by ISR mission operations commanders, collect data for DCGS analysts located at worldwide nodes managed by the 480th ISR Wing. This unit managed intelligence exploitation, tasking, and collection for Unified Response while simultaneously supporting global combat requirements by requiring mission operations commanders and analysts to “surge” by working longer hours.¹⁴ Even under normal conditions, analysts do not exploit all of the data collected by ISR platforms. USCENTCOM officials reportedly used “less than one-half of the electronic signals intercepts collected from the Predator.”¹⁵ Surge operations beyond the 12-hour days currently demanded by normal ISR operations are to be expected during ad hoc contingencies; however, more frequent humanitarian contingencies can severely strain our already limited analytical capacity. The Air Force's proposed 50 percent increase in ISR platforms over the next four years will place additional pressures on ISR mission management and exploitation.¹⁶

Because policy makers might have no knowledge of the vast amount of data collected by these additional platforms, they could underestimate the number of analysts needed to transform that information into useful intelligence. The increasing number of aircraft and accelerated usage brought about by humanitarian operations may unexpectedly confront the Air Force with the problem of “too much data and not enough intel.”¹⁷ Consequently, tactical and operational ISR commanders might find themselves in the precarious situation

of choosing between greater personnel workload and diminished mission availability.¹⁸ Although the simple solution would call for more personnel, the use of discretion when deciding whether to become involved in contingency operations will continue to be the key factor in maintaining a proper balance of force structure. In the spring of 2010, the 480th ISR Wing began adding approximately 2,500 intelligence personnel, predicated on USCENTCOM's plan to increase its approximately 40 full-motion-video combat air patrols to 65.¹⁹ However, this expansion does not take into account emerging priorities such as humanitarian operations.²⁰

If the number of contingency operations (such as Unified Response) consistently exceeds projected USCENTCOM levels for the next several years, a faster operations tempo accompanied by surge operations for current DCGS personnel will become more likely. To alleviate the subsequent stress on mission-management and analytical capacities, the Air Force may have to add more ISR operators than the 2,500 currently planned. The Department of Defense has undertaken a study of ways to determine specific numbers of personnel necessary to meet the escalating demand for ISR analysis, but its date of publication remains uncertain.²¹ Even though the military should certainly complete such evaluations in order to attain greater clarity regarding the actual manning dilemmas faced by the ISR community, other problems may exist as well.

ISR operators are subject to psychological stress occasioned by the changing requirements mentioned above. Many ISR operations take place from in-garrison locations throughout the United States every day and around the clock; indeed, the DCGS supports a variety of missions in all six geographic combatant commands. For the 13th Intelligence Squadron, Unified Response added to its many duties, albeit with a humanitarian rather than a combat focus. A sign outside the squadron's operations floor that reads "Welcome to the

AOR [area of responsibility]" reflects the mentality of ISR operators, but sustainment of this "always in the fight" attitude for extended periods may have undesirable psychological repercussions.

The US Army commissions an annual report detailing stressful incidents that affect Soldiers' mental health. Studies assessing data from 2007 through 2009 identified multiple deployments as a major contributing factor to mental problems among Army personnel.²² ISR operators, who are "always on," may possibly face *some* of the same concerns as individuals who deploy multiple times, but no data details the short- and long-term mental health issues associated with DCGS operations. Thus, commanders may someday confront a festering problem that could adversely affect their ISR operators.

Clearly, those commanders should invest in a study similar to the Army's to gauge the likelihood of mental health issues among persons who conduct combat operations from their home station. Such a study should address ISR operations, but commanders might consider expanding it to include other individuals, such as space and missile personnel who conduct distributed operations. It should also deal with ISR operators who spend several years conducting uninterrupted combat and non-combat missions. The findings might help identify potential mental health problems associated with DCGS operations—specifically, the attitudes and reactions of ISR operators to stressful situations in combat and noncombat environments. Regardless of the scope and scale of such a project, the Air Force should recognize mental health concerns as its operations increase in number and vary in scope.

Even without definitive data to document these matters, some commanders seek ways to assuage psychological stress. One initiative grants high-level security access to chaplains who support ISR operators in highly classified operating environments. Air Combat Command, which manages the pilot, sensor operator, and mission intelligence coordinator force, has taken similar

steps by granting clearances to mental health professionals, thereby expanding their access to assist operators in restricted duty areas. The side effects of including spiritual and mental health support personnel on or near operations floors remain unknown. Their presence could even inadvertently increase the pressure on task-saturated operators, who might view them as a distraction during time-critical moments. However, these initial steps will go a long way toward identifying and mitigating long-term stressors that affect people working in distributed operations, as have previous US Army research efforts in the forward operating environment.

Solving the personnel-related matters discussed above will not be enough to ensure that critical intelligence reaches the intended audience during humanitarian operations. Senior leaders must also address problems with the systems and processes that ISR operators rely upon to disseminate critical information. Declassifying sensitive information and identifying the associated delivery architecture during future humanitarian operations require planning to determine how best to deliver this information to operators who lack security clearances. Initially, security classification guidance and procedures for transmitting information to on-scene operators during Unified Response were convoluted.²³ For about the first week of operations, guidance changed repeatedly before it stabilized: virtually all electro-optical imagery was to be unclassified and transmitted through unclassified media.²⁴ Declassifying massive amounts of data and intelligence from remotely piloted ISR platforms so quickly was highly unorthodox, but personnel should expect it for future humanitarian operations. The situation in Haiti may have simplified the decision to declassify data and intelligence, yet guidance may differ considerably in case of humanitarian operations in more politically sensitive locations.

Releasing unclassified images may not prove feasible when the United States con-

siders assisting states like China, Russia, or Syria. Despite their likely apprehension about the United States flying traditional “spy” aircraft over their territory, such countries might permit overflights of ISR aircraft in case of a severe disaster, but the United States might follow more restrictive rules for imagery declassification and architecture than it did in Haiti. The broader implication is that combatant commands must establish uniform declassification standards and processes that provide for the release of large amounts of intelligence within hours or minutes of collection. If a uniform declassification process is not feasible across combatant commands, then each command should establish criteria and procedures for releasing information according to its regional standards, possibly even detailing initial country-by-country declassification guidance that ISR operators can follow during disaster response. To prepare for future operations, we should clarify processes and enhance tools to deliver unclassified information to NGOs now.

Unclassified reporting standards for the DCGS may represent the most appropriate solution for future humanitarian operations since they would offer the architectural framework for delivering unclassified data. Although disseminating unclassified intelligence is not a traditional function of current ISR operators, members of the 13th Intelligence Squadron exploited ISR data during Unified Response and posted intelligence on classified and unclassified collaboration websites through the 480th ISR Wing.²⁵ On the unclassified network, many images appeared on USSOUTHCOM’s website—the All Partners Access Network—for quick distribution of information to NGOs. However, because all combatant commands do not share this standard, decision makers should consider issuing blanket guidance for the unclassified distribution of intelligence in order to give ISR operators direction for filling requests from unclassified partners during disaster responses.

The Next Unified Response

Consider what might happen in the near future if we implemented the recommendations discussed above and then faced a hypothetical tsunami in Indonesia, comparable to the one that struck there in 2004. Suppose that the Indonesian government rejected a US offer of military forces to assist with initial recovery yet granted overflight permission for ISR aircraft. The United States could then provide assistance, largely unbeknownst to the local populace. The RQ-4 could immediately deploy from its forward station in Guam to supply nearly uninterrupted imagery coverage for humanitarian operations.²⁶ Additionally, tactical RPAs such as the Shadow and Raven could employ their sensors to investigate situations requiring further scrutiny of RQ-4 imagery. If these and other tactical RPAs—potentially numbering in the hundreds—linked into the DCGS, an unprecedented amount of data would stream to analysts around the world. Personnel could promptly send data garnered from these ISR platforms to our Indonesian partners and supporting NGOs via unclassified, or possibly classified, means.

In this scenario, the United States could show solidarity with its Indonesian partners, fostering a deeper friendship with an increasingly important international player—home of the world's largest Muslim population. We would expect surge operations to occur during execution of such a humanitarian mission. Nevertheless, the ISR mission would remain effective since (1) ISR personnel would not receive taskings beyond what resources allow, (2) we would have a better understanding of how increased operations affect their psycho-

logical health, and (3) we would have issued clear guidance for ISR support to recovery and relief workers well in advance of the operation. These factors would culminate in a response even more effective than our efforts following the 2004 tsunami in Indonesia or the 2010 earthquake in Haiti. Moreover, the Indonesian situation is another example of using remotely piloted ISR platforms to secure US national interests in operations other than war.

Future humanitarian operations may temporarily take precedence over combat operations, and a variety of challenges will likely accompany this new reality. As they address concerns about limited data processing capacity, psychological effects associated with high operations tempo, and procedures for declassifying intelligence, decision makers and ISR operators should also recognize the benefits of humanitarian ISR operations. If Haiti is any indication of the United States' ability to respond quickly, efficiently, and effectively to international disasters, US policy makers have yet another tool with which to advance our national interests. Moreover, leveraging remotely piloted ISR weapons of war in a socially constructive manner will pay dividends well beyond the initial intent of the weapons' design. By means of this new paradigm, the DCGS and other portions of the ISR community have demonstrated their ability and willingness to transition from a purely combat focus. Because ISR operators will probably improve upon the lessons of Operation Unified Response, future humanitarian efforts will become even more effective. 🌟

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Notes

1. "Intelligence assets monitor foreign states, volatile regions, and transnational issues to identify threats to US interests in time for senior military leaders to respond effectively." Joint Publication 2-0, *Joint Intelligence*, 22 June 2007, I-23–24, http://www.dtic.mil/doctrine/new_pubs/jp2_0.pdf.
2. "Magnitude 7.0—Haiti Region," US Geological Survey, 12 January 2010, accessed 5 February 2010, <http://earthquake.usgs.gov/earthquakes/eqinthenews/2010/us2010rja6/#summary>.
3. US Southern Command, "Narrative History of Operation Unified Response," 25 May 2010, <http://www.southcom.mil/AppsSC/factFilesLarge.php?id=138>.
4. The Air Force's ISR assets deployed in the aftermath of Hurricane Katrina, marking the first time they were "collectively called to domestic contingency service to provide imagery and full-motion video to military decision-makers and on-scene response providers." Maj Kevin L. Buddelmeyer, "Military First Response: Lessons Learned from Hurricane Katrina," research report (Maxwell AFB, AL: Air Command and Staff College, 2007), 3–4.
5. Jesse Lee, "Thoughts and Prayers for Haiti," White House Blog, 12 January 2010, <http://www.whitehouse.gov/blog/2010/01/12/thoughts-and-prayers-haiti>. USCENTCOM maintained its normal complement of ISR assets in-theater; however, the expected replacement RQ-4 was delayed due to operations in Haiti. Additionally, two RQ-1 orbits were dedicated to relief operations in Haiti. See Sharon Weinberg, "Military Drone Diverted from Mideast to Haiti," AOL News, 15 January 2010, <http://www.aolnews.com/world/article/military-drone-diverted-from-mideast-to-haiti/19318294>; and Judith Snyderman, "'Global Hawk' Photographs Damage to Help Relief Effort," American Forces Press Service, 15 January 2010, accessed 12 July 2010, <http://www.defense.gov/news/newsarticle.aspx?id=57540>.
6. "We cannot expect the Marines to swoop in with MREs [meals, ready to eat] every time a storm hits. We train soldiers to fight wars. You can't kill a storm." House, Select Bipartisan Committee to Investigate the Preparation for and Response to Hurricane Katrina, *A Failure of Initiative: Final Report of the Select Bipartisan Committee to Investigate the Preparation for and Response to Hurricane Katrina* (Washington, DC: Government Printing Office, 2006), 15, <http://www.gpoaccess.gov/serialset/creports/pdf/hr109-377/overview.pdf>.
7. Col Floresita C. Quarto, "U.S. Military/NGO Interface: A Vital Link to Successful Humanitarian Intervention," US Army War College Strategy Research Project (Carlisle Barracks, PA: US Army War College, 18 March 2005), 4, <http://www.dtic.mil/cgi-bin/GetTRDoc?AD=ADA433681&Location=U2&doc=GetTRDoc.pdf>.
8. Distributed ISR operations leverage mission management and analytical capabilities by physically separating the personnel who perform those duties from the ISR asset during mission execution. By their design, all RPAs and their ISR operators conduct distributed ISR operations.
9. See Col Keith W. Balts, "Satellites and Remotely Piloted Aircraft: Two Remotely Operated Ships Passing in the Fight," *Air and Space Power Journal* 24, no. 3 (Fall 2010): 35–41.
10. Robert M. Gates, *Quadrennial Defense Review Report* (Washington, DC: Department of Defense, February 2010), xvii, http://www.defense.gov/qdr/images/QDR_as_of_12Feb10_1000.pdf; John A. Tirpak, "The RPA Boom," *Air Force Magazine* 93, no. 8 (August 2010): 36–42, <http://www.airforce-magazine.com/MagazineArchive/Documents/2010/August%202010/0810RPA.pdf>; and Christopher Drew, "Drones Are Weapons of Choice in Fighting Qaeda," *New York Times*, 16 March 2009, accessed 12 July 2010, http://www.nytimes.com/2009/03/17/business/17uav.html?_r=1&hp.
11. House, "Intelligence, Surveillance and Reconnaissance: Overarching Guidance Is Needed to Advance Information Sharing," *Statement of Davi M. D'Agostino, Director, Defense Capabilities and Management, Testimony before the Subcommittees on Air and Land Forces and Seapower and Expeditionary Forces, Committee on Armed Services, House of Representatives*, 111th Cong., 2nd sess., 17 March 2010, 5, <http://www.gao.gov/new.items/d10500t.pdf>.
12. Jim Hodges, "The Get-Well Intel Plan," *CAISR Journal*, 1 January 2010, <http://www.c4isrjournal.com/story.php?F=4411944>.
13. "Air Force Distributed Common Ground System," fact sheet, *Air Force Link*, 31 August 2009, accessed 5 August 2010, <http://www.af.mil/information/factsheets/factsheet.asp?id=15433>.
14. TSgt Matthew McGovern, "ISR Wing Members Contribute to the Fight," *Air Force Link*, 18 March 2010, accessed 12 July 2010, <http://www.af.mil/news/story.asp?id=123195175>; and MSgt Dale Yates, "480th ISR Wing Airmen Aid Haiti Recovery," *Air Force Link*, 8 February 2010, accessed 12 July 2010, <http://www.af.mil/news/story.asp?id=123189385>.
15. House, "Intelligence, Surveillance and Reconnaissance," 6.
16. Ibid.
17. An analyst uses data—the raw information garnered from ISR assets—to produce intelligence.

18. Although the operations in Haiti did not adversely affect the overall capacity of the DCGS, it does not have unlimited capability. Commanders, however, can augment capacity through extended work hours and work weeks for DCGS personnel—a process known as “surging.”

19. *C4ISR Journal* 8, no. 9 (October 2009), accessed 12 July 2010, <http://www.c4isrjournal.com/story.php?F=4251691>; and Barry Rosenberg, “Moving at the ‘Speed of War’ Is Air Force ISR Unit’s Goal,” *Defense Systems*, 5 April 2010, accessed 11 July 2010, <http://www.defensesystems.com/Articles/2010/04/06/Interview-Maj-Gen-Bradley-Heithold-ISR-Agency.aspx>.

20. 2nd Lt Nicole White, “1st Global Hawk Lands in Guam,” *GlobalSecurity.org*, 3 September 2010, accessed 15 September 2010, <http://www.globalsecurity.org/intell/library/news/2010/intell-100903-afns01.htm>.

21. House, “*Intelligence, Surveillance and Reconnaissance*,” 7.

22. Judith A. Lyons, “Commentary on MHAT-IV: Struggling to Reduce the Psychological Impact of War,” *Traumatology* 13, no. 4 (December 2007): 40–45; Jerry Harben, “Army Releases Mental Health Advi-

sory Team V Report,” *Army Medicine*, 6 March 2008, <http://www.armymedicine.army.mil/news/releases/20080306mhavt.cfm>; and Jerry Harben, “Mental Health Advisory Team VI,” *Army Medicine*, 13 November 2009, <http://www.armymedicine.army.mil/news/releases/20091113mhavtvi.cfm>.

23. In this context, classification means distinguishing between data too sensitive to release to the general public and data not sensitive enough to warrant withholding from the general public.

24. Although electro-optical images—similar to those produced by regular handheld cameras—were unclassified and released, other images (infrared and synthetic aperture radar) were not released.

25. Unclassified information was posted to USSOUTHCOM’s NGO collaboration website—All Partners Access Network—a “community of communities” that combines the benefits of unstructured collaboration (wikis, blogs, forums) and structured collaboration (file sharing, calendars) with the personalization of social networking to facilitate unclassified sharing with multinational partners and NGOs, as well as among various US federal and state agencies.

26. White, “1st Global Hawk Lands in Guam.”

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