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U) NRO Monthly Highlights: Launch Acquisition osted on December 9, 2009 by	ns Nov 09	
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U) NRO Monthly Highlights: IMINT Acquisitions	Nov 09	
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(U) NRO Monthly Highlights: COMM Acquisitions Nov 09 Posted on December 9, 2009 by SECRET//TK//REL TO USA, FVEY	(b)([:]	3)
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(U) NRO Monthly Highlights: Sy	stem Operations Nov 09		(b)(3)
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Posted in 2009, highlights, system operations Tagged Leave a comment	(b)(1
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(U) An Enduring Relationship of Mutual Support	
Posted on December 8, 2009 by	(b)
- SECRET//REL TO USA, FVEY	
and Joint Space	
Operations Center	
(U) The Joint Space Operations Center (JSpOC) at Vandenberg Air Force Base,	
America's primary satellite tracking and reporting unit, supports National	(1.) (4
Reconnaissance Office (NRO) space situational awareness and collaborates with	(p)(
the NRO on a variety of joint worldwide operations.	
These activities are part of a relationship the U.S. Air Force and NRO have developed over	(b)(1)
the past 48 years. During this period, the relationship between these two organizations has grown to meet	(b)(1) (b)(3)
expanding missions reflecting the needs of increasingly demanding customers. As the NRO and Air Force	, , ,
relationship grows, the JSpOC partnership will play a key role in protecting America's national security.	(b)(3
(U) The JSpOC 's mission is to provide the commander, Joint Functional Component Command for Space (JFCC	
SPACE) and the Fourteenth Air Force (14AF) commander with command-and-control capabilities to conduct joint	
space operations. The JSpOC 's establishment consolidated the functions of the 14AF, 614th Air and Space	
Operations Center, the 1st Space Control Squadron, the Unified Space Vault, and other elements in a new facility	
located at the 14AF headquarters, Vandenberg Air Force Base. This made the JSpOC a primary focal point for	
operating U.S. military satellites and maintaining space situational awareness.	
(U) Previously based at Cheyenne Mountain, the 1st Space Control Squadron and Unified Space Vault historically	(1.) (4
provided situational awareness data to the JSpOC andas external customers. Today, they are organic	(p)(c
elements within the JSpOC , but continue their original mission of providing space situational awareness data.	(b)(1)
Consequently, understanding	(b)(1) (b)(3)
the space environment has become an expanding JSpOC and mission. As space becomes crowded, it is	(b)(3)
critical to track systems and debris to keep U.S. space assets safe. The JSpOC performs this mission 24-hours a	(D)(
day, seven days a week, and is adding resources to improve capabilities and effectiveness. The JSpOC 's Space	
Situational Awareness Operations Cell (formerly 1st Space Control Squadron) maintains space data for all orbiting	
objects. They task the Space Surveillance Network (SSN) – a chain of ground radars and observation telescopes	

(U) In the past two years,	
GLOBAL THUNDER 2008	
deployment that laid the groundwork for procedures and identification of improveme	
required in processing, equipment, and communication infrastructure. GLOBAL LIGHTNING 2008, in turn featured a JSpOC deployment to the NROC to perform the reverse mission. In GLOBAL THUNDER 2009, b	
organizations assessed	юш
An team deployed to the JSpOC to conduct Watch Operations, including Flight	t
Safety functions for two 12-hour periods.	
That same month, the conducted CORONA LENS, a tabletop exercise to examine crisis res	none

equirements both operations centers are jointly investigating ature acquisition requirements.	(b)(1) (b)(3)
U) In addition to these capabilities, the JSpOC and JFCC SPACE coordinate with the	(b)(3)
	(b)(1) (b)(3)
U) The JSpOC 's mission will likely expand as joint missions grow. Using innovative NRO capabilities, such as the EVI, the combined space forces will give warfighters near real-time battlefield situational awareness. Additionally, the NRO Advanced Systems and Technology (AS&T) Directorate has discussed providing the JSpOC with new echnology developed in AS&T-sponsored labs. This includes new BVIlike concepts, Google Earth-like infrastructures, and even new methodologies for command-and-control. These partnerships will maintain space	
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EVI, the combined space forces will give warfighters near real-time battlefield situational awareness. Additionally, the NRO Advanced Systems and Technology (AS&T) Directorate has discussed providing the JSpOC with new echnology developed in AS&T-sponsored labs. This includes new BVIlike concepts, Google Earth-like infrastructures, and even new methodologies for command-and-control. These partnerships will maintain space is a mutually cooperative environment for DoD and NRO assets. The downrange users will ultimately benefit as the JSpOC and NRO leverage their mutual capabilities. The synergy of combining efforts in a resource-constrained environment is critical for the DoD and the Intelligence Community. **DoD Community** In the Community of the Space Sentinel magazine.** would like to thank Lt Gen arry James, USAF, Commander, Fourteenth Air Force and the Commander Joint Functional Component for the Commander Joint Functional Component for the Space Sentinel magazine.** would be component for the Commander Joint Functional Component for the Commander Joint Functional Component for the Space Sentinel magazine.**	(b

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(U) This is the second Space Sentinel story highlighting how National Reconnaissance Office (NRO) personnel are	
helping American warfighters, Intelligence Community operators, and analysts in conflict zones. What follows	
continues the tale of how NRO assistance aids battlefield users achieve their mission. The prior "From the Front"	
account depicted six deployments to Iraq, including five deployments as a member of	
the NRO Deputy Director for Mission Support. This second feature tells the story of article captures some of her experiences,	(b)(3
government civilian. Like piece article captures some of her experiences, impressions, and words as a front line (though in her particular case, non-military) operator, analyst, and advisor.	(0)(0
(U) A Tale of Two Wars	
(U) From December 9, 2008 to February 12, 2009 day mission in two combat theaters provided NRO's customers with National Technical Means (NTM) expertise at forward situated intelligence centers. She coordinated operational needs, assisted in integrating new or enhanced capabilities, and helped develop and facilitate the NRO's end-to-end, multi-INT, and multiplatform, Rapid Response Solutions to "hard" intelligence problems.	(b)(1) (b)(3)
(U) "I was there to educate users on NRO capabilities and identify collection and capability gaps that NRO can fill," she reported in a March 1, 2009 interview for the Space Sentinel after her return home to Fort Bragg. Her presence in theater, as well as that of the NRO members that accompanied her, and the many other NRO persons deployed to Afghanistan and Iraq for extended durations, enhances NRO's relevance to the operational user through "point of need" presence.	
(S//TK //REL) Asked to provide her own definition of the work's intent, related that NRO "Forward Support is being with our users in the field so that we, as NRO personnel, can see first-hand what issues they face and how their operations are run — to enable us to better meet their needs with products, services and capabilities." A trained physicist and experienced Intelligence Community veteran, she applied her knowledge of NRO technology and data to her liaison work on her deployment. "For my work in theater," she related, "I used a wide gamut of NRO technology and data types —	(b)(3
wide gamut of NRO technology and data types –	(b)(1) (b)(3)
(U) While in the user insight she gained helped her and others shape the evolution of NRO systems operations and ground mission interfaces. "I helped the customers schedule NTM collection to test devices," she said. "I helped arrange testing of ground and airborne collection and processing capabilities, coordinated production of models for their targets, and educated them on new tools." By bringing an increased presence of ready technology more directly to the fight, she "also helped the users fill capability gaps and investigated new capabilities that did and will continue to help them prosecute their targets faster and more efficiently."	
	(b)(1) (b)(3)

	(b)(1) (b)(3)
(S//REL) "As the NRO Senior Field 'Rep "I facilitated the NRO team's access to the right TF [Task Force] entities who could most fully take advantage of NRO tools and capabilities. I made sure the team was talking to the right units and the right personnel within those units to make the most significant impact on their operations." This vital work was in pursuit of the leadership of a dynamic enemy who is often maneuvering within constantly adapting networks to avoid capture and destruction by Coalition forces.	
(U) The Passage of Time Expands the NRO Field Rep Mission (U) In discussing precedents to NRO's current forward deployment initiative, explained, "The CENTCOM [United States Central Command] Team has been deploying on a regular basis since the beginning of the war – for the last several years – but the more formal program started in 2008." She, herself, has "been involved with the [NRO forward presence] concept since Brigadier General Jeffrey C. Horne [the former NRO Deputy Director for Mission Support] first spoke to leadership about putting teams forward with them."	(b)(3)
(U) She related that because NRO is not a Combat Support Agency, an evolution of circumstances led to routinely deploying NRO personnel into combat theaters. Officer in Charge, saw a need for NRO Field Reps to be forward-deployed with their customers," said along with Bridger General Horne, saw that as an opportunity for the Field Reps to get in 'lock step' with the users who were prosecuting the war. They realized that the more Field Reps know about what is going on at the front lines and what challenges the users face, the better they will be able to help	(b)(3) (b)(1) (b)(3)
(U) Joint and Interagency Teamwork Efforts (S//REL) The NRO is not alone in providing frontline service to the military. "In most locations we are sitting side by side with our mission partners. That allows us to stay up to date on their endeavors, and they on ours." Commenting on the level of cooperation between other theater organizations, reported, "the Field Rep cadre is a very tight-knit group, and we regularly lean on each other for support and information. Our collective experiences benefit all of us and we use that to our advantage on a regular basis. While deployed, we tour each other's areas and share ideas to support each other's users. Because of our varied backgrounds and networks, that helps us to stay up to speed on more efforts across the NRO."	
(U) Personnel, Transportation, Logistics, and Training Considerations (S// REL.) As of August 20, 2009, NRO had Enterprise Directorate and an as Deputy Director for Mission Support assets. In the next two weeks, NRO scheduled more individuals to arrive at their destinations for a rotation, with slated to return home. The missions these individuals will perform include providing technical advice, support, engagements with theater representatives, routine hardware and software maintenance, systems upgrades, and assisting the various commands in a variety of areas.	(b)(3) (b)(1)
(U) The NRO Forward Presence initiative faces major logistical difficulties. "When traveling to war zones," related "transportation and logistics is always a hardship. We've moved a lot of people and a lot of gear,	(b)(3)

especially in support of the various	initiatives. But we're figuring it out	(b)(1)
as we go and evaluating the different options along the way. NRO's be	uy-in into the program has been	(b)(3)
particularly helpful on that front." Pre-deployment preparation is one	e key to success for those sent to combat	
theaters. To ready people for the dangers of a frontline placement,	reported, "The deployers take	(b)(3)
different training courses depending on who they're supporting, but,	generally speaking, they have to be weapons	
qualified and have some OPSEC [Operations Security] and area famil	liarization training."	
(U) Human Risk Management		
(U) Combat theater duty obviously entails risk. Active insurgencies of	ontinue in Afghanistan and Irag with Irag in	
particular, remaining a hotbed of enemy activity. Though the Sunni A		
its peak in 2006, overall terrorist attacks in Afghanistan have increas		
two years. The threat from Al Qaida in Iraq (AQI) continues, though a		
resistance groups reject AQI's presence and assist Coalition Forces ar	~ ,	
(U) While there is no indication that enemy forces are directly targeti		
collateral casualties in the event of an attack in a public area or again:		
become a convenient target of opportunity. Bagram Air Field, an NRO		(1.)(0)
deployed, has been a target of choice for Taliban operatives		(b)(3)
Insurgents have used rocket attacks, suicide bombers, IED s, and oth		
indicates that enemy forces are planning more attacks there, and at so		
particularly in the eastern provinces bordering Pakistan. Statistically	speaking, visitors are at just as high a risk for	
injury as those permanently stationed to these FOBs.		
(U) The NRO Forward Support Shape of Things to Come		
-S//TK //REL.) With respect to the future of sending NRO individuals	s to support Operation Iraqi Freedom or	
Operation Enduring Freedom said, "we will be maintain	ining regular rotations with in	
Afghanistan and Iraq, as well as with		
and we are with [the]		
Headquarters. We've	and	(b)(3)
will continue to do so," she said. "We now have reps at Bagram, and a	also have teams constantly coming in and out	(b)(1)
of theater, installing and working on the components of		
(U) "We've been able to help our users in ways we would have never i	imagined had we tried to do this from home,"	
	with them and observe their operations – see	
first-hand and understand the issues they have – which helps us appl	ly an effective solution to a particular	
problem and form a better relationship. You just don't get the same in	nsight into how they operate from a vantage	
point back in the CON US [Continental United States]." She also expl	lained that "for the users, it [forward support]	
means they get a more accurate assessment of their requirements and	d also an education on what NRO really	
brings to the fight. Many 'customers' only know that NRO provides II	MINT [Imagery Intelligence] and SIGINT	
[Signals Intelligence] data, and don't necessarily know about all of th	e data collection and processing and systems	
development that goes on."		
(U) Summarizing the value of her in-theater experience,	reflected the successes of the NRO	(b)(3)
(0) Summarizing the raide of her in theater experience,	- STOCKER LITE SHOOKSSES OF THE THRO	(-/(-/

Forward Presence program she witnessed outweighed the risks, affirming with confidence the response of supported organizations and their members has been quite favorable. "They have been very amenable to it. When they see us out forward with them, they know we are committed to helping them. In fact, we've been asked by many of the leaders to maintain our presence forward so that we can continue providing this level of support – and even more"	
(U) is the Corporate Communicator for the NRO Deputy Director for Mission Support (DDMS).	(b)(3)
Posted in 2009, sentinel, summer Tagged Comment	
(U)	
SECRET//REL TO USA, FVEY	
(U) Parent Organization: United States Air Force (civilian employee)	
(U) Biographical Summary: technical and operational career has focused on	(b)(3)
geospatial endeavors. A former member of the National Geospatial-Intelligence Agency	(/(- /
(NGA), she earned a degree in physics, and then worked the first five years as an Image	
Scientist with the National Imagery and Mapping Agency (an NGA predecessor)	
performing special collections and radiometry. Subsequently, she performed duties as a	
Technical Operations Officer in another agency of the National Intelligence Community for	
a couple of years before returning to NGA as a Geospatial Analyst and moving to the <u>Joint Special Operations</u>	
Command (JSOC) at Fort Bragg, North Carolina in 2002–a location where she has served ever since. In June	
2006, however, she transferred to the NRO and became a <u>Senior Field Representative</u> to the JSOC.	
(S//REL) What Organizations Served In While In Theater:	(h)(1)
supports Operation Enduring Freedom in	(b)(1) (b)(3)
Afghanistan),	(5)(5)
(U) Recent Recognition: was selected as the January-	(b)(3)
March 2007 and October-December 2008 Senior Civilian Employee of the Quarter, as well as that directorate's	(5)(5)
2007 and 2008 Senior Civilian Employee of the Year. She also received the Centurion Award for October-	
December 2008, a distinction recognizing the member that has done the most for support of the	
Warfighter during that period.	
See also – <u>In Harms Way: An NRO Senior Civilian's Recent Tour in the Combat Zones</u>	
Posted in 2009, sentinel, summer Tagged Leave a comment	
(U) NGW Geolocation Scenario Posted on November 30, 2009 by	(b)(3)

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(S//SI//REL) Although the May 21st operation is real, a fictional scenario demonstrates the full range of ground and overhead capabilities that the NRO, in collaboration with other defense and intelligence com	
accesses/techniques and analysts spanning multiple agencies and the DoD.	(b)(3
(U) See main article: Keeping Up with the iPhone and other Next Generation Wireless Devices Posted in 2009, sentinel, summer Tagged	(b)(1 (b)(3 (b)(3
s a Systems Engineer in the NRO Systems Engineering, (U) See main article: Keeping Up with the iPhone and other Next Generation Wireless Devices Posted in 2009, sentinel, summer Tagged (U) Keeping Up with the iPhone and other Next Generation Wireless Devices Posted on November 30, 2009 by	(b)(3
u) See main article: Keeping Up with the iPhone and other Next Generation Wireless Devices U) Keeping Up with the iPhone and other Next Generation Wireless Devices U) Keeping Up with the iPhone and other Next Generation Wireless Devices	(b)(3 (b)(3

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 $National\ Reconnaissance\ Office$

sted on November 25, 2009 by	
SECRET//REL TO USA, FVEY	
D) Since the <u>National Reconnaissance Office</u> (NRO) draws its workforce from the <u>Intelligence</u> ommunity, <u>Department of Defense</u> (DoD), and numerous other agencies, we are an inherently verse organization. While some focus on the challenges of uniting people with varied ackgrounds, I see <u>diversity</u> as a source of tremendous strength and key to collaboration.	Bruce Carlson, Director, National Reconnaissa nce Office
I) In my experience, working alongside men and women from other agencies and services ovides insight into their cultures and ultimately allows you to leverage unique strengths, and ster an atmosphere of teamwork and cooperation. When the NRO was created in the 1960s, ceades before fused intelligence and interagency collaboration became popular phrases, the	Bruce Carlson, Director, Nationa Reconnaissance Office
	meet the
tion's most difficult challenges.) Those partnerships pioneered fifty years ago have expanded to meet new demands necessary to be secure and free. Current operations depend on NRO and Air Force space platforms, and we have	o keep Americ
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RO quietly applied the combined expertise of the Intelligence Community, DoD, and industry to ation's most difficult challenges. Those partnerships pioneered fifty years ago have expanded to meet new demands necessary to fe, secure and free. Current operations depend on NRO and Air Force space platforms, and we haintain those capabilities. This Space Sentinel edition presents information on Air Force and NRO cooperation, their shad common mission. Through this partnership, we provide a model for collaboration that directly pabilities those in harm's way use. Never forget they are the reason why we ensure Vigilance from ternal NRO Hosting of this article	o keep Americ ave a duty to red heritage, y produces

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