

Figure 1. (U) National Reconnaissance Office

## (U) THE ERA OF OPPORTUNITY

(U) The FY 98-99 National Reconnaissance Program (NRP) Congressional Budget Justification Book (CBJB) presents current and future space-based intelligence capabilities required to support US national policy makers, the military, and law enforcement and counterintelligence agencies. The National Reconnaissance Office (NRO), responsible for administering the NRP, develops, acquires, and operates overhead reconnaissance systems, providing intelligence that satisfies our national and military customers as they tackle an ever-increasing variety of missions. This introduction will present the NRO's new vision and mission statements and the changes we're making in business and acquisition practices to promote innovation and enhance our technological edge. It will also examine our maturing relationships with our mission partners and customers, and highlight significant aspects of our systems and architectures.

(U) During the spring of 1996, the Acting Director NRO (A/DNRO) convened The Jeremiah Panel to evaluate a broad spectrum of NRO operations. The panel of senior officials from government and industry undertook an extensive examination of the NRO. After several months of research and deliberation, the Panel recommended significant changes throughout the NRO. Recommendations included emphasizing information superiority through collection and related activities, and re-energizing innovation and revolutionary technological improvement to reconnaissance capabilities. When implemented, the initiatives associated with these recommendations will have a considerable impact on NRO operations.

### (U) NRO MISSION AND VISION

(U) The changing world situation has also had an impact on NRO operations. Transnational issues—drugs, terrorism, dwindling resources—occupy policy makers' minds to a greater extent than ever before. New missions confront national agencies and military forces. As priorities and missions change, so does the NRO.

(U) In FY 96, we changed our vision and mission statements. The new statements reflect not only the National Security Council's redirection of national intelligence and the expanding role of intelligence, but also our awareness of the importance of achieving global information superiority and supporting our partners and customers as their missions change and expand. The expanding range of missions and policy needs drives the current

development of space reconnaissance enhancements and the ongoing search for revolutionary breakthroughs needed for innovative space systems and alternative architectures.

#### NRO Vision

(U) "Freedom's Sentinel in Space:  
One Team, Revolutionizing Global Reconnaissance."

#### NRO Mission Statement

(U) "To enable US Government and military information superiority, during peace through war. The NRO is responsible for the unique and innovative technology, large scale systems engineering, development and acquisition, and operation of space reconnaissance systems and related intelligence activities needed to support global information superiority."

### (U) INNOVATION IMPERATIVE

(U) Our ability to effect successful change depends on greater innovation, improved customer relationships, and incorporation of best business practices. Innovation is the cornerstone on which the NRO is founded. An imperative for the coming years is the pursuit of revolutionary technological advancements. We are stimulating revolutionary technological advances while implementing evolutionary technologies to meet near-term intelligence needs (see Figure 2). Our decision to pursue parallel technology paths recognizes the need to "jump over the next generation of technology" to achieve and maintain global information superiority in the 21st century.

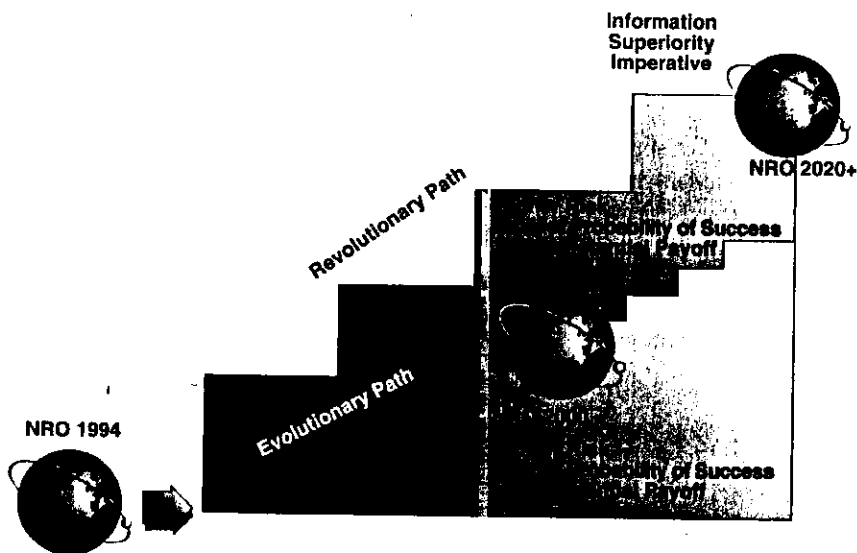


Figure 2. (U) Revolutionary vs Evolutionary Development

### (U) Revolutionary Technological Advancements

(S) US global information superiority would be enhanced by near-continuous global coverage. This technology challenge is so great that we are pursuing several initiatives simultaneously. First, the NRO has established a dedicated revolutionary research program separate from and independent of ongoing development programs. Second, we are shifting the balance of funding. In past years, 75 percent of our developmental funding went to evolutionary programs. Now, we will have a funding split in favor of revolutionary developments. Third, we have increased the Advanced Technology budget by almost 15 percent above the FY 97 appropriated amount. We will protect activities supported with this increased funding from budget trade-offs. We will not risk our nation's future security by sacrificing these efforts.

(S) To further stimulate greater technological advancements, we have created a competition to fund the most promising revolutionary initiatives. We have allocated \$150 million across the Future Years Defense Program (FYDP) for this purpose. Additionally, requests for proposals (RFPs) are being written to stimulate innovation in future NRO systems and architectures during the concept definition phase. Future RFPs will use succinct statements of objectives ("what") versus detailed ("how") specifications to encourage innovative solutions to technical problems. Further, NRO-hosted

annual technology conferences will encourage vital technology exchange for both evolutionary and revolutionary advancement. At these conferences, technology developers within the prime contractors' companies will highlight opportunities for advancing existing systems. In addition, the NRO will proactively seek out new industry partners to broaden its competitive technology capabilities.

### (U) ACQUISITION REFORM AND BEST BUSINESS PRACTICES

(U) In addition to the innovation imperative for FY 98-99, we will continue to improve the acquisition process. The NRO took a fresh look at acquisition reform in FY 96 by reviewing DoD acquisition practices, commercial best practices, and past NRO practices that elevated the NRO to world class status in technical innovation and program management. In FY 96 an NRO Acquisition Reform Integrated Product Team (IPT) reviewed the business practices of each NRO program office, support function, mission ground station, and staff function. The IPT objective: to determine how the NRO will execute all acquisitions more effectively and efficiently in light of new acquisition reform laws, regulations, and initiatives, and the recommendations made by the Jeremiah Panel. We anticipate acquisition reforms will lead to the following improvements:

- Shorten the development cycle
- Reduce development costs
- Encourage timely insertion of technology into the development process
- Increase the technology base available to the NRO
- Increase system capabilities and performance
- Increase responsiveness to user requirements.

(S) Acquisition reform did not begin with the IPT. Implementation of these reforms began this spring when the Office of Contracts published the NRO Acquisition Manual which established a single set of NRO contracting procedures to replace a multitude of procedures inherited from the CIA, Navy, and Air Force. Responding to Congressional concerns, during the summer, we reevaluated how we use our Contracted Advisory and Assistance Services (CAAS) and established a three year draw-down plan to

reduce CAAS positions by 22 percent. The following table depicts the draw-down plan by major CAAS function within the NRO:

	FY 96	FY 97	FY 98	FY 99
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

(U) Similarly, the Office of Resource Oversight and Management (ROM) implemented financial management reforms by institutionalizing rigorous quarterly program execution reviews and implementing a single integrated budget and accounting system for FY 97 to improve the accuracy, consistency, and timeliness of financial reporting. ROM is also standardizing NRO financial management terminology, policies, and practices to help document and support NRO financial requirements.

**(U) Integrated Product Team Working Groups**

(U) Committed to process improvement, the A/DNRO assigned his Directors to the IPT and tasked them to lead three Working Groups chartered to make improvements in

- The NRO's Program Definition Phase
- The NRO's Program Execution Phase
- NRO Business and Management Practices.

(U) The Working Groups' tasks: examine how the NRO operates, eliminate what does not add value, and write implementation plans to improve the entire acquisition process in terms of cost, schedule, and performance. The teams developed plans of action detailing how specific improvements will be defined and implemented. These Working Groups are now formulating the draft implementation plans for each of the identified improvements. The draft plans will be synthesized by the NRO Acquisition Reform IPT and implemented as the NRO's business and management practices by the end of FY 97.

**(U) MISSION PARTNER AND CUSTOMER RELATIONSHIPS**

(U) The NRO cannot and should not work alone. As overhead collection systems become more capable and budgets become increasingly austere, it is

imperative that the NRO continue its efforts to ensure customer satisfaction. A vital focus for FY 98-99 and beyond is the maturation of NRO customer relationships. Alliances with our customers and mission partners—major customers with whom we have a mutually accountable and beneficial relationship—bring about a mutual understanding of how NRP systems satisfy customer requirements. Today, we give NRO customers greater insight into the system engineering at the beginning of the acquisition process to increase communication and promote the success of final architectures. By ensuring greater customer involvement from the beginning of the acquisition process and continuing through launch and operations, NRP systems are better designed to satisfy user needs. Our continuing outreach to customers ensures maximum understanding of system capabilities.

**(U) Mission Partners**

(U) Early NRO involvement with our mission partners in the requirements definition process ensures our responsiveness to community needs. Early involvement of the requirements community in NRO acquisition decisions ensures that follow-on collection architectures satisfy future requirements. The NRO actively solicits requirements from its mission partners: National Imagery and Mapping Agency (NIMA), the National Security Agency (NSA), and the Central MASINT Office (CMO). These organizations are directly responsible for community IMINT, SIGINT, and MASINT requirements validation as well as processing and dissemination of the collected data. Their close association with the NRO and their role in the intelligence analysis, production, and dissemination process define these organizations as NRO mission partners.

(S) In 1996, we institutionalized formal involvement of these mission partners by including the Directors of NIMA, NSA, and CMO as full members of the NRO Acquisition Board. As we make decisions to plan, compete, build, and field new systems, our mission partners will be direct participants in all major decisions. Their participation and unique insight will increase the utility and power of new architectures.

**(U) Customers**

(U) All agencies of the Intelligence Community use overhead reconnaissance products, and are thus NRO customers, as are the Joint Chiefs of Staff, the Commanders-in-Chief (CINCs), and the major commands in the military services. Additionally, the White House, the State Department, many civil agencies, and Congress are all customers.

(S) Military commanders' effective use of information derived from national space assets depends on a mutual understanding by collectors, producers, and customers of several key areas: current and projected national collection capabilities and limitations, particularly as they complement

theater collection assets; rapidly evolving product dissemination and data processing architectures; and, procedures for tasking and reporting. With the military's equity in NRO systems increasing, it is more vital than ever that we keep military users in the loop regarding acquisition and operation of space systems. The Deputy Director for Military Support (DDMS), through the Operational Support Office (OSO), helps military customers understand how NRP systems support their requirements and ensures we provide appropriate collection support. In addition, NRO senior leaders travelled to each of the CINCs this fall to brief them on the result of the Imagery Architecture Study to guarantee their understanding and support.

(U) Guaranteeing the satisfaction of our National Policy Support users is equally as important as satisfying the military. In recognition of this, the NRO created an office specifically charged with interacting with and supporting our national customers. Like the DDMS, the Deputy Director for National Support (DDNS) takes responsibility for a particular customer segment. The DDNS and his staff will ensure national requirements are analyzed and considered in the development and use of all NRO systems. The DDNS will position Liaison Officers with customer organizations such as the Central Intelligence Agency (CIA), the State Department and the Justice Department. These liaisons will provide resident expertise on NRO systems to the customers and provide feedback from the organizations to the DDNS. In effect, they will function like the Theater Support Representatives and Liaison Officers OSO has attached to unified commands and key operational centers.

(S) The formation of DDNS also recognizes the civil community's increasing use of NRO products. Imagery, for example, provides important information for organizations planning responses to natural disasters such as hurricanes, earthquakes, and typhoons. Additionally, ongoing studies are trying to determine the usefulness of overhead collection for locating forest fires when fires are small, greatly reducing response time and damage.

**(U) CONSTELLATION/CAPABILITY PLANNED OVER THE FYDP**

**(U) New Systems and Architectural Change**

(S) [REDACTED] coverage as

[REDACTED]

(U) IMINT

(U) [REDACTED]

(S) [REDACTED]

[REDACTED]

# DENIED IN FULL

[REDACTED]

[REDACTED]

(S) The Future Imagery Architecture (FIA) Program is a major new initiative that will use EIS as its foundation. The FIA will marry carefully surveyed user needs to a customized mix of smaller satellites that promise to greatly enhance system performance and target revisit capabilities while greatly reducing cost. FIA will build on the EIS ground architecture and incorporate many of the acquisition reform initiatives recommended by the Jeremiah and Hermann Panels and successfully demonstrated over the past two years within the DoD. This includes issuing a statement of needs and requirements vice a statement of work. We expect this approach to yield shorter acquisition lead times and reduce costs by removing barriers to contractor productivity and creativeness.

(U) While IOSA will meet early 21st century user requirements, we recognize the need to begin planning now for the next generation architectures to meet the anticipated requirements beyond IOSA's 2006 full operational capability date. To this end, the NRO and NSA have begun a community wide study for a follow-on architecture—IOSA Phase II. This study will consider all approaches, including revolutionary concepts, designs, and technologies.

(U) The NRO is currently transitioning a number of tasking, dissemination, and exploitation-related activities from the NRO to the National Imagery and Mapping Agency (NIMA). Hereafter, these activities will be reflected in NIMA's FY 98 and beyond programs.

(U) Communications

(U) SIGINT

(U) NRO's Communications Directorate (COMM) is empowered to provide assured, innovative, cost effective, and integrated terrestrial and space-based communications, information systems and dissemination services to enable US government and military global information superiority. In concert with IMINT and SIGINT future architectures, as well as with acquisition and financial management reforms, COMM has initiated a radically new National Space Communications Program (NSCP) which is postured to leverage off commercial and other government innovative technologies and best business practices.

(U) The NRO's SIGINT Directorate is charged with developing and acquiring systems for the collection and processing of signals intelligence from overhead reconnaissance, as well as operating the SIGINT collection satellites. The Directorate's focus is three-fold: cost-effective support to our customers using existing systems, development and deployment of the advanced Integrated Overhead SIGINT Architecture (IOSA), and research and definition of future innovative follow-ons to IOSA.

[REDACTED]

(U) The SIGINT Directorate continues on a path to deploy a fully integrated architecture in response to our customers' needs for overhead SIGINT in the next century. Developed in close concert with our NSA mission partners, the plan for this future SIGINT architecture, by design, includes NSA's processing and exploitation capabilities as an integral part of the architecture.





# Technical Challenge



# Research and Development

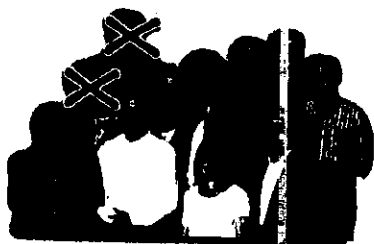


# Hostile Environment

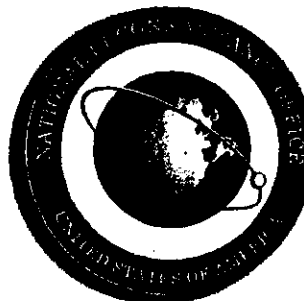
Weapons Proliferation  
Drugs  
Terrorism



# Resource Reduction



# Accuracy + Accountability + Oversight



*Freedom's Sentinel in Space*

**(U) DIRECTOR'S EMPHASIS**

**(U) Technical Challenges**

(U) The NRP now faces new and daunting tasks. On one hand we have accepted high-risk technical challenges in

[REDACTED]

- (S) creating the Future Imagery Architecture with much smaller satellites which can be launched by less expensive boosters,
- (S) delivering a highly complex yet smaller and less costly Integrated Overhead SIGINT Architecture with exceptional flexibility and responsiveness,
- (U) developing high-bandwidth laser communications to relay signals, and
- (U) improving the survivability of our assets.

**(U) Research and Development**

(U) We are also committed to pushing the research and development envelope in search of those breakthroughs that will retain our preeminence in overhead reconnaissance in the next century.

**(U) Environment**

(U) We are facing an increasingly hostile environment in which to execute our mission.

- (S) [REDACTED]

- (S) [REDACTED]

- (U) Availability of new portions of the radio spectrum and reductions in transmitting power add to our burden.

- (S) [REDACTED]

- (S) Globalization of the threat has increased demands on our systems and forced us to shift our efforts towards the entire world—formerly we had been able to focus almost exclusively on the 1/4 of the globe's surface, the Eurasian landmass, that is in the north and east hemispheres.

(U) However, at the same time we are facing

- no real growth budgets,
- constrained government workforce levels, and
- reductions in our ability to bring in outside expertise.

**(U) NRO Challenge and Promise**

[REDACTED]

(U) On our part we will ensure that planning, programming and budgeting will be accomplished with the highest degree of accuracy possible, with full tracking and accountability, and with tight corporate management and oversight of our resources.

(U) To produce the best program possible we have instituted an open, corporate, measured process whose goal is to produce and execute a program equal in excellence to that demonstrated by our historic ability to develop, acquire, launch, and operate satellites.

**(U) Request**

(U) We ask the Congress to support our efforts in this area, to recognize the improvements we have already made, to give us time to absorb and institutionalize the direction given by the previous Congress, and to continue to authorize and appropriate the funds required to maintain the NRO as Freedom's Sentinel in Space.

