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In Accordance with E. O. 12958

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Press Release 24 February 1995

PRESIDENT ORDERS DECLASSIFICATION OF HISTORIC SATELLITE IMAGERY CITING VALUE OF PHOTOGRAPHY TO ENVIRONMENTAL SCIENCE

E 4713

CIA Headquarters (Langley, Va.) — President Clinton today signed an Executive Order that directs the declassification of imagery obtained by the first generation of photoreconnaissance satellites; the so-called CORONA, ARGON and LANYARD systems. The order will cause the declassification of more than 800,000 satellite images of the earth's surface, collected by these satellites between 1960 and 1972. By the end of an eighteen-month transition period, the public will be given access to this imagery that can be used to assist environmental studies and other civilian applications.

Early imagery collections were driven, in part, by the need to confirm purported developments in Soviet strategic missile capabilities. Worldwide photographic coverage was also used to produce maps and charts for the Department of Defense and other US Government mapping programs.

Today's announcement follows recommendations made to the White House by the Director of Central Intelligence at the request of the President and Vice President. His recommendations were based on the findings of the Classification Review Task Force (CRTF) led by the Central Imagery Office. The CRTF consisted of Intelligence Community, military and civilian government officials, who examined imagery security policy and evaluated national security risks in the post-Cold War era as well as the potential utility of satellite photo reconnaissance imagery to the US Government and the public.

The first successful satellite imagery was collected in August 1960 using a panoramic camera. The declassified imagery provides extensive coverage of the earth. The best resolution of the imagery is 6 feet; the poorest resolution is approximately 560 feet. Areas of land coverage for individual satellite images are approximately 10 miles by 120 miles, although coverage varied somewhat over time. The attached fact sheet gives details about these obsolete systems.

Early reconnaissance coverage will allow environmentalists to establish a baseline in the 1960s for assessing environmental changes. Experts believe the declassified imagery will contribute significantly to the analysis and understanding of global environmental processes. They point out that the Landsat system began producing imagery for scientific use in 1972, so that release of this archive of 1960-1972 images will extend into the past by more than a decade the timelines for systematic and comprehensive coverage of the earth's surface available to environmental researchers.

These valuable materials will become declassified upon transfer from the Intelligence Community to the National Archives and Records Administration and copies will be sent to the United States Geological Survey (USGS). The public will be able to access these records at the National Archives facility at College Park, Maryland. Additionally, by connecting to the USGS' EROS Data Center in Sioux Falls, SD via the Internet, the public will be able to browse an electronic index that includes reduced resolution pictures of the early satellite imagery, as well as Landsat and other Federal image holdings, and place orders for delivery of film duplicates to home or office.

Inquiries for information on the declassified imagery should be directed to:

CIA Public Affairs (703)-482-7677

NRO Public Affairs (703)-892-1128

Inquiries for availability or purchase of the declassified imagery should be directed to:

National Archives at College Park, MD (301)-713-7030

EROS Data Center Customer Service, Sioux Falls, SD (605)-594-6151, or electronically as follows: the Internet address for text-based queries is \$TELNET glis.cr.usgs.gov. Those having an X terminal can access over \$TELNET xglis.cr.usgs.gov. Modem users can directly dial into the text-based system by setting their modem to 8 bits with no parity and 1 stop bit and dialing 605-594-6888.

RELEASE OF IMAGERY ACQUIRED BY SPACE-BASED NATIONAL INTELLIGENCE RECONNAISSANCE SYSTEMS

By the authority vested in me as President by the Constitution and the laws of the ted States and in order to release certain scientifically or environmentally useful gery acquired by space-based national intelligence reconnaissance systems, consistent the national security, it is hereby ordered as follows:

- Section 1. Public Release of Historical Intelligence Imagery. Imagery acquired by space-based national intelligence reconnaissance systems known as the CORONA, ARGON, LANYARD missions shall, within 18 months of the date of this order, be declassified transferred to the National Archives and Records Administration with a copy sent to United States Geological Survey of the Department of the Interior consistent with sedures approved by the Director of Central Intelligence and the Archivist of the ted States. Upon transfer, such imagery shall be deemed declassified and shall be made lable to the public.
- Section 2. Review for Future Public Release of Intelligence Imagery. (a) All prmation that meets the criteria in section 2(b) of this order shall be kept secret in interests of national defense and foreign policy until deemed otherwise by the ector of Central Intelligence. In consultation with the Secretaries of State and ense, the Director of Central Intelligence shall establish a comprehensive program for periodic review of imagery from systems other than the CORONA, ARGON, and LANYARD sions, with the objective of making available to the public as much imagery as possible sistent with the interests of national defense and foreign policy. For imagery from plete broad-area film-return systems other than CORONA, ARGON, and LANYARD missions, review shall be completed within five years of the date of this order. Review of gery from any other system that the Director of Central Intelligence deems to be plete shall be accomplished according to a timetable established by the Director of tral Intelligence. The Director of Central Intelligence shall report annually to the sident on the implementation of this order.
- (b) The criteria referred to in section 2(a) of this order consists of the lowing: imagery acquired by a space-based national intelligence reconnaissance systemer than the CORONA, ARGON, and LANYARD missions.
- <u>Section 3. General Provisions.</u> (a) This order prescribes a comprehensive and lusive system for the public release of imagery acquired by space-based national elligence reconnaissance systems. This order is the exclusive Executive Order erning the public release of imagery for purposes of section 552(b)(1) of the Freedom Information Act.
- (b) Nothing contained in this order shall create any right or benefit, stantive or procedural, enforceable by any party against the United States, its noise or instrumentalities, its officers or employees, or any other person.
- <u>Section 4.</u> <u>Definition.</u> As used herein, "imagery" means the product acquired by ce-based national intelligence reconnaissance systems that provides a likeness or resentation of any natural or man-made feature or related objective or activities and ellite positional data acquired at the same time the likeness or representation was gired.

Remarks

of

Admiral William O. Studeman

Acting Director of Central Intelligence

at the

Signing of the Executive Order
Declassifying Early Satellite Imagery
24 February 1995

Early Satellites in US Intelligence
[As Prepared]

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Early Satellites in US Intelligence

Vice President Gore, distinguished guests, friends, I welcome you here today for a historic event. Vice President Gore is here to announce the signing of an Executive Order declassifying imagery from our early intelligence satellite systems. Within 18 months, imagery from the CORONA, ARGON, and LANYARD systems will be available to the public through the National Archives and the US Geological Survey.

These satellite systems are obsolete now, but in their time they played a pivotal role in our national security. As we debate the role and mission of intelligence in the next century, it is important to understand how the images sent back by these early satellites altered our view of the world during the Cold War and how satellite imagery continues to shape our worldview today.

I would like to focus on one system--CORONA. CORONA was conceived in the late 1950's, an era when facts were scarce and fears were rampant. The size and nature of the Soviet threat were largely unknown, but many believed that the United States was falling dangerously behind Moscow in critical areas. The Soviet threat grew in the imagination of the public as our leaders debated the supposed "bomber gap," the "missile gap," and the "science gap." The successful launch of Sputnik in 1957 even raised public fears that the Soviets would drop bombs on the US from space.

In 1958, President Eisenhower approved a program that would answer our questions about Soviet missile capabilities and replace risky U-2 reconnaissance flights over Soviet territory. The CIA and the Air Force would jointly develop satellites to photograph denied areas from space. That program had both a secret mission and a secret name--CORONA.

The CIA and Air Force developed this first-generation space program with great speed and tight secrecy. In August of 1960, we successfully launched a CORONA satellite and recovered the film capsule it dropped from space. It was 110 days after Moscow shot down

the U-2 aircraft piloted by Gary Powers, ending U-2 flights over Soviet territory. During the next 12 years, CORONA satellites would usher in a new era of technical intelligence and a new era of "firsts."

The CORONA system successfully photographed its first intelligence target on August 18, 1960. We have that image here on the left; it shows a military airfield near Mys Schmidta, on the Chukchi Sea in farnortheastern Russia. By today's standards, the image looks fuzzy and distant, but technical advances soon produced sharper pictures. The image on the right, taken in 1966, shows a Soviet Long-Range Aviation Airfield near Dolon, Kazakhstan.

Such pictures held enormous significance for the course of the Cold War. They provided information that allowed our leaders to weigh the Soviet threat and measure our response. CORONA debunked the missile gap. It allowed us to base our national security strategy—and spending—on facts rather than fear, on information rather than imagination. These images, combined with the expertise of photo interpreters and analysts on the ground, provided us with precise information on our adversaries' offensive and defensive capabilities. Continuing advances in surveillance and reconnaissance technology allowed the

United States to closely monitor the development, testing, production, and deployment of weapons in denied areas.

CORONA ushered in technological firsts that contributed to advancements in other areas. The program taught us how to recover objects from orbit-methods that were adapted by NASA to recover astronauts. It gave us a fast and relatively inexpensive way to map the earth from space. Before CORONA, cartographers had adequately mapped only a quarter of the earth's surface. CORONA also provided the first stereo-optical images from space, which gave photo interpreters a 3-dimensional view of terrain.

The most important contribution of the CORONA system to national security came from the intelligence it provided. CORONA looked through the Iron Curtain and helped to lay the groundwork for disarmament agreements and the collapse of the Berlin Wall. With satellites, we could verify reductions in missiles without on-site inspections. Satellite imagery gave the United States the confidence to enter into negotiations and to sign arms control treaties with the Soviet Union. Successor programs continued to monitor ICBM sites, and verify strategic arms agreements and the Nuclear Nonproliferation Treaty.

The CORONA program has now taken its place in history, but satellite imagery continues to play a vital role today. Satellite imagery confirmed that North Korea was developing an offensive nuclear capability in the early nineties and gave us early warning when Saddam Hussein deployed two elite Republican Guard Divisions to the Kuwaiti border last Fall.

The lessons of the CORONA program can tell us much about how the Intelligence Community operates today.

First, CORONA demonstrated that the ability to adapt rapidly to a changing world is critical to the success of US intelligence. The CIA and Air Force pushed the CORONA program at breakneck pace, because we knew that the Soviets were working on countermeasures against the U-2. While the Soviets developed ways to hide their weapons programs from CORONA, American intelligence experts were working on the next generation of satellites to defeat those measures. For the Intelligence Community, this process of adaptation has been continuous. The need to adapt will grow even more acute as the pace of technological advancement increases. It is not enough to answer the questions that policymakers and military commanders ask today, we must anticipate the questions they will

ask in the next century. We must design the technologies, methods, and collection strategies that will provide the answers.

The second lesson--satellites alone don't provide answers, you need experts on the ground to tell them where to look, to analyze the images, and to get information quickly to the people who need it. give you an example from Desert Storm; after Iraq invaded Kuwait, our analysts anticipated that Saddam might release stored oil into the gulf. Early on 24 January, shortly after the war began, satellites sent images of a massive oil slick forming around Kuwait's offshore oil loading facilities. Analysts were well prepared. They had studied the Kuwaiti oil facilities and knew how the oil flowed through manifold valves to the offshore terminal. They provided the military with the precise location of the manifold and an image of the target. On 26 January laser-guided bombs struck the manifolds, greatly reducing the flow of It was a success that involved people from oil. across the Intelligence Community working in cooperation with the military. The Pentagon later released the footage of the bombing that we all saw on TV news.

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The third lesson from the CORONA system—it is cheaper to counter a known threat than an imagined threat.

Just as military planners in 1960 needed to know

Soviet missile capabilities to make prudent decisions, today's planners need to know which countries are developing weapons of mass destruction, how long it will be until such weapons are operational, and what systems these countries have for delivering weapons.

The fourth lesson--secrecy for current collection systems is critical. The more the adversary knows about the collection system, the faster and cheaper he can develop measures to counter it. That principle applied in the era of Nikita Khrushchev and it applies in the era of Saddam Hussein. We must constantly weigh national security interests against a real need for greater openness.

The final lesson from the CORONA program is that these intelligence systems are valuable assets that belong to the American people. We should declassify them when their secrets are no longer critical to national security. Film from these early broad-area-search systems still contains a wealth of information.

When he was in the Senate, Vice President Gore led an effort to make this data available for environmental

studies. He approached former DCI Robert Gates with the idea and their discussions led to the formation of the Environmental Task Force in the spring of 1992. The purpose of the task force was to determine how we could apply classified systems and data to environmental studies.

At the same time, the Central Imagery Office conducted an extensive review of classification policy and procedures under a DCI Classification Review Task Force. That group, made up of both military and civilian members, concluded that the declassification of the satellite imagery collected by the obsolete, broad-area-search satellite systems does not present a risk to national security.

Just as CORONA gave the Intelligence Community a view through the Iron Curtain, today that program offers information that can open doors not only for environmentalists, but also for scientists, scholars, and historians.

The process of bringing these early spy satellites in from the cold has been long. We are working on ways to provide critical information to people who need it sooner, without compromising national security concerns.

Before I turn over the podium, I would like to call your attention to this camera from the CORONA Program. Later this year, we will transfer the camera to the Smithsonian to commemorate the 35th anniversary of the beginning of CORONA. On 24 May, CIA's Center for the Study of Intelligence will host an unclassified symposium on the revolution in intelligence collection and analysis inaugurated by the CORONA system. That evening, there will be a National Security and Space Club commemoration ceremony at the Smithsonian to honor Americans who made major contributions to the program.

At this time it is my pleasure to introduce Vice

President Gore, who played a key role in bringing
about the Executive Order on imagery declassification.



Symposium on CORONA, America's First Reconnaissance Satellite

President Clinton has ordered the declassification of the massive amounts of imagery collected by America's first satellite reconnaissance systems from 1960 to 1972. The original photographic negatives recovered from space will be declassified, transferred to the National Archives, and made available to the public.

In recognition of these actions, CIA's Center for the Study of Intelligence will host an intelligence symposium on May 24, 1995. Piercing the Curtain: CORONA and the Revolution in Intelligence will provide academic researchers, members of the media, and students of intelligence an opportunity to learn more about the world's nation's first satellite reconnaissance systems and what they meant to information collection. The symposium will discuss the development of CORONA, its employment by the Intelligence Community, and how satellite imagery assisted US policymakers in dealing with such policy challenges as the alleged "Missile Gap" of the early 1960s, the 1967 Arab-Israeli War, and early Soviet-American strategic arms talks. For the first time in a public forum, current and former officers of the Intelligence Community, policymakers and historians will come together to discuss the impact of CORONA.

In conjunction with the symposium, the Center for the Study of Intelligence will release a book of documents highlighting various aspects of CORONA's history. At the symposium, the Center will also display important CORONA imagery that influenced the decisions reached by US officials. *Piercing the Curtain* promises to be an important historical conference and a milestone in the CIA's openness program. For further information, please contact the Center at 703-351-2698.

HISTORICAL IMAGERY DECLASSIFICATION FACT SHEET

PROGRAMS

CORONA: Operated from August 1960 - May 1972 **DECLASSIFIED** Collected both intelligence and mapping imagery.

ARGON: Used the organizational framework

of CORONA. A mapping system with 7 of 12 missions

successful from May 1962 - August 1964.

LANYARD: An attempt to gain higher resolution imagery, it flew one successful mission in 1963.

ORIGINS

Soviets orbit first satellite, SPUTNIK 14 October 1957 President Eisenhower endorsed program February 1958

Powers shot down in U-2 on 1 May 1960

SIGNIFICANT DATES

1 CORONA test launch attempt 28 February 1959 #13 1st successful recovery from space 12 August 1960

#14 Took 1st image from space on 18 August 1960

#145, last CORONA, launched 25 May 1972 Last images of the series taken 31 May 1972 Executive Order announced 24 February 1995

Ceremonies at National Air & Space Museum 24 May 1995

"FIRSTS" IN HISTORY

1st photo reconnaissance satellite in the world 1st mid-air recovery of a vehicle returning from space

1st mapping of earth from space 1st stereo-optical data from space

1st multiple reentry vehicles from space

1st reconnaissance program to fly 100 missions

IMAGERY STATISTICS Imaging resolution was originally 8 meters (25 feet)

but improved to 2 meters (6 feet)

Individual images on average covered an area approximately 10 miles by 120 miles

PRODUCTION **STATISTICS**

Operated for nearly 12 years

Over 800,000 images taken from space

Collection includes 2.1 million feet of film in 39,000 cans

Declassified Intelligence Satellite Photographs

in Executive Order, signed by resident Clinton on February 23, 995, has authorized the declasification of satellite photographs collected by the U.S. Intelligence Community during the 1960's.

Duplicate film negatives will be created for these photographs and used to provide film negatives, positives, and Daper prints to the public at the cost of reproduction. Photographs will be available from the National Archives and Records Administration and from the U.S. Geological Survey's Earth Resources Observation Systems (EROS) Data Center. The images will become declassified and available for purchase by the public within 18 months after the declassification order was signed. This will allow the two agencies to create the working negatives and integrate the photo collection with their existing product ordering and distribution systems.

When the declassified images become available, an Internet catalog and image browse capability for the entire collection will be accessible, at no charge, on the U.S. Geological Survey's Global Land Information System (GLIS). To try the GLIS online catalog and browse capability for Landsat multispectral scanner (MSS), Landsat thematic mapper (TM), and NOAA advanced very high resolution radiometer (AVHRR) satellite image data, use the text-only Internet GLIS interface:

telnet glis.cr.usgs.gov
or the X windows GLIS interface:
telnet xglis.cr.usgs.gov

Available Products

The USGS plan is to offer these photographs as duplicate negatives, positive transparencies, or black and white photographic prints.

World Wide Web access

An online description of this photographic collection and sample GIF and raster images is available on a USGS World Wide Web server using public domain browse tools such as Mosaic or Netscape. The Universal Resource Locator (URL) address for the USGS Declassified Intelligence Satellite Photographs home page is:

http://edcwww.cr.usgs.gov/dclass/dclass.htm

Internet FTP access

Only four images were selected for declassification at this time. Sample digital images were created of these four photographs. These sample digitally scanned images demonstrate potential digital products that could be created from the film.

To access this anonymous FTP server.

- 1. ftp edcftp.cr.usgs.gov
- 2. Enter anonymous at the logon prompt.
- 3. Enter your e-mail address at the password prompt.
- Change to the directory containing the image files by entering: cd pub/data/DCLASS

5. Enter Is to view an alphabetical listing of the files. Once you have located your desired GIF file (.gif) or raster image file (.img), set the file transfer mode to binary by typing binary at the prompt. Then enter get followed by the filename. You should also download and read the README file for information concerning the source photography, image size, and information about the images' geographic locations and collection dates.

Further information

An information packet for the Declassified Intelligence Satellite Photographs is available for \$25. It contains the four black and white declassified sample photographic prints, and a color Landsat MSS image over the Aral Sea (included for comparison purposes). To purchase the packet, contact:

U.S. Geological Survey
EROS Data Center Customer Services
Sioux Falls, SD 57198
Phone: 605-594-6151
Fax: 605-594-6589
E-mail:
custserv@edcserverl.cr.usgs.gov