(b)(3)

From: Microsoft Exchange
To:
Sent: Friday, November 06, 2015 9:19 AM
Subject: Relayed: NRO FOIA APPEAL F16-0008 - REQUEST FOR CIA CONSULTATION (Richelson) --- SECRET//SI/TK//REL TO USA, FVEY

Delivery to these recipients or distribution lists is complete, but delivery notification was not sent by the destination:

(b)(3) 50 USC ⊥ 3507
(b)(3) 50 USC ⊥ 3024(i)

Subject: NRO FOIA APPEAL F16-0008 - REQUEST FOR CIA CONSULTATION (Richelson) --- SECRET//SI/TK//REL TO USA, FVEY

Sent by Microsoft Exchange Server 2007

APPEAL CONSULT TO CIA 11/6/15

(b)(3)

[redacted]

From: [redacted] (b)(3) 50 USC ⊥ 3507
Sent: Friday, November 06, 2015 9:18 AM (b)(3) 50 USC ⊥ 3024(i)
To: [redacted]
Cc: [redacted] COMM-IMSO-IRRG-FOIA
Subject: NRO FOIA APPEAL F16-0008 - REQUEST FOR CIA CONSULTATION (Richelson) --- ~~SECRET//SI/TK//REL TO USA, FVEY~~
Attachments: ATT 0 - F16-0008_CIA_appeal_consultation.doc; ATT 1-F16-0008 APPEAL LETTER.pdf; ATT 2 - CIA TREATMENT FROM F12-0091 REVIEW.pdf; ATT 3 - CLEAN DOCUMENT F16-0008.PDF

Importance: High

Classification: ~~SECRET//SI/TK//REL TO USA, FVEY~~

Classified By: [redacted]
Derived From: INCG dated 20120213
Declassify On: 25X1, 20651231
==========

Good morning. (b)(3)

(U) Please see the attachments, comprising a consultation request package for CIA review and treatment of your equities, and return to the NRO for our response to Mr. Richelson's appeal. Should you have any questions regarding this request, please feel free to contact me.

[redacted]

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Classification: ~~SECRET//SI/TK//REL TO USA, FVEY~~

(b)(3)

[redacted]

(b)(3) 50 USC ⊥ 3024(i)
(b)(3) 50 USC ⊥ 3507

To: [redacted]
Cc: [redacted]COMM-IMSO-IRRG-FOIA
Subject: NRO FOIA APPEAL F16-0008 - REQUEST FOR CIA CONSULTATION (Richelson) --- ~~SECRET//SI/TK//REL TO USA, FVEY~~
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Classified By: [redacted]
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(b)(3)

[redacted]

No changes [redacted]

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Classification: ~~SECRET//SI/TK//REL TO USA, FVEY~~

NATIONAL RECONNAISSANCE OFFICE
14675 Lee Road
Chantilly, VA 20151-1715

5 November 2015

MEMORANDUM FOR THE CENTRAL INTELLIGENCE AGENCY INFORMATION AND PRIVACY COORDINATOR

SUBJECT: (U) Freedom of Information Act APPEAL Consultation Request – (Mr. Jeffrey Richelson)

REFERENCE: (U) National Reconnaissance Office Case Number F16-0008 (Appeal)

(U) The National Reconnaissance Office (NRO) received a 16 October 2015 letter from Mr. Jeffrey Richelson, in which he is appealing denial of information in one document responsive his 2012 request for four articles from *Space Sentinel*. Specifically, Mr. Richelson's appeal addresses the article entitled, "(U) NASA's LANDSAT Satellites as Reconnaissance Assets." A copy of Mr. Richelson's appeal letter, with supporting documentation he provided, is included in this package as *attachment #1*.

(U) In the processing of Mr. Richelson's initial request, NRO requested Central Intelligence Agency (CIA) review of this document. A copy of the document as provided by CIA in response to our consultation request is enclosed as *attachment #2* to this memorandum. We have including a clean copy of the article as *attachment #3*. Please perform a new review of this article for CIA equities, and return your findings to us for our final response to Mr. Richelson's appeal.

(U//~~FOUO~~) If you have any questions, please call NRO Public Programs Team Lead [redacted] at [redacted] (secure) and reference case number F16-0008. (b)(3)

NRO Information Review and Release Group
Public Programs Team

Attachments:
1. (U) Richelson appeal correspondence
2. ~~(S//SI/TK//REL TO USA, FVEY)~~ "NASA's LANDSAT Satellites..." as treated by CIA in initial review
3. ~~(S//SI/TK//REL TO USA, FVEY)~~ "NASA's LANDSAT Satellites..." clean copy

UNCLASSIFIED//~~FOUO~~ WHEN SEPARATED FROM ATTACHMENTS

CL BY: [redacted] (b)(3)
DECL ON: 25x1
DRV FROM: INCG 1.0, 13Feb2012

NR5O F16-0008 (APPEAL)

F16

ATT 1 - APPEAL LETTER W/ATTACHMENTS

OCT 29 2015

JEFFREY T. RICHELSON

[redacted]

(b)(6)

October 16, 2015

NRO Appeal Authority
14675 Lee Road
Chantilly, Va. 20151-1715

This letter appeals the NRO's response to my FOIA request of May 3, 2012 (F12-0091), specifically with regard to "NASA's LANDSAT Satellites as Reconnaissance Assets." A copy of NRO's response letter is attached.

It appears that a significant amount of material that has been deleted concerns the use of LANDSAT to gather data in support of crop assessments. Therefore, I am enclosing the portions of a number of declassified documents in which use of LANDSAT to gather crop data is evident. In addition, the CIA, several years ago, released a fact sheet on Project UPSTREET.

I have also included a portion of another declassified document that discusses the use of LANDSAT as a reconnaissance system: *Strategic Intelligence from ERTS?: An Analysis of Digital Data on Soviet ICBM Sites* (June 1975).

Therefore, I request the article be reviewed again for possible release of additional information.

Sincerely,

Jeffrey T. Richelson

(b)(3)

10 29 15

IPSG

[redacted]

Secret
NOFORN

China Crop Environment Brief: 1977

First Report, June 1977

Secret
GC/CEB 77-001
June 1977

Details

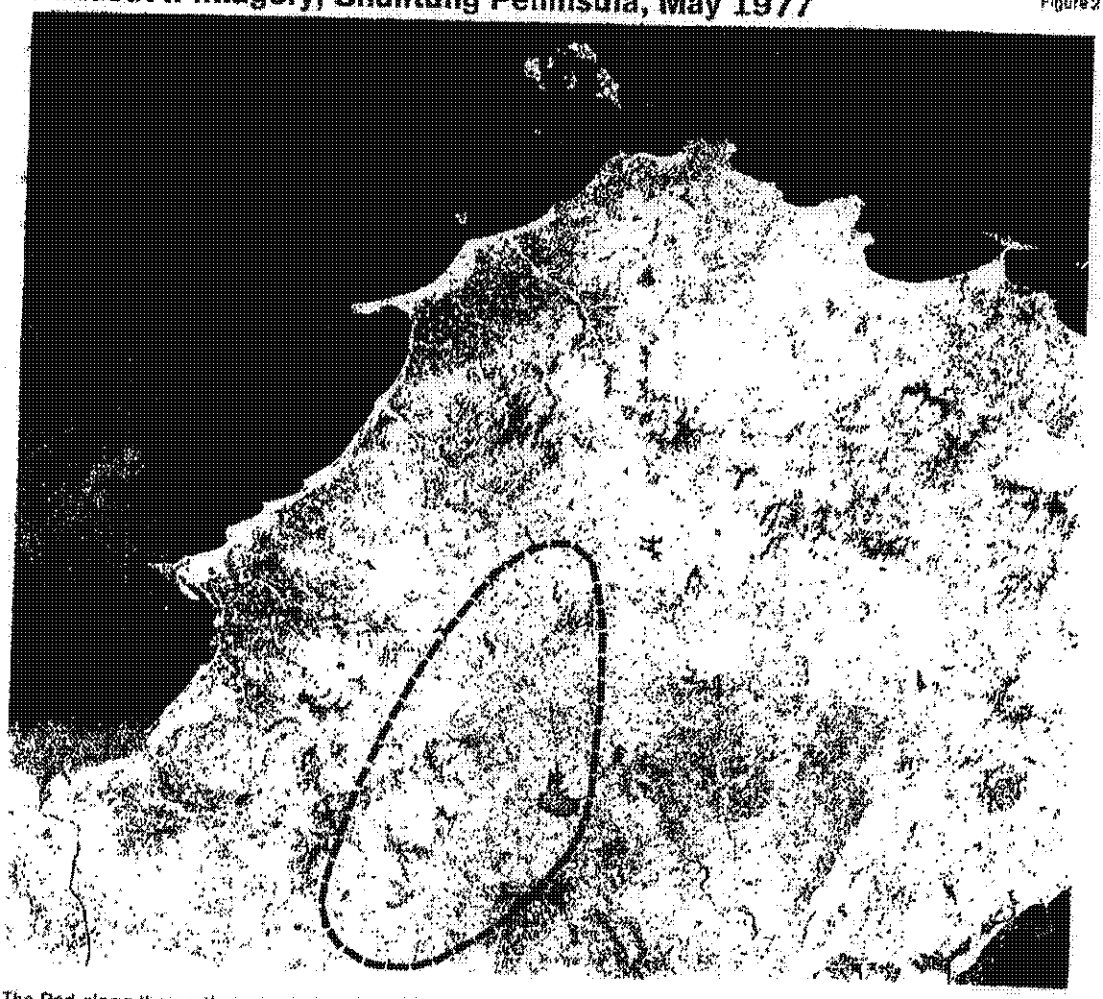
(S) Crop environmental conditions through the end of May 1977 are graphically summarized on Figure 1. Winter crops had come out of dormancy and vegetables were growing well by mid-April in the Shantung and Hopeh Provinces portions of the North China Plain. Crop growth had begun by mid-May in northern Hopeh and Liaoning Provinces, and spring-sown crops were beginning to show infrared reflectance from vegetation in Kirin and southern Heilungkiang Provinces. Favorable crop conditions during mid-May were evident throughout the North China Plain except for the Shantung Hills (see Figure 2). Lack of adequate cloud-free imagery precluded determination of crop conditions in South China, but available meteorological data indicate wide-ranging precipitation variations in the south since late March; precipitation variations for selected rice- and winter wheat-growing provinces are charted (see Figure 3).

(S) Drought conditions reported in the Chinese press have been confirmed by imagery as severe in Heilungkiang, Kirin, and Shantung Provinces. In central Kirin Province, LANDSAT imagery shows that the surface area of major reservoirs was slightly smaller in 1976 than in 1975, and by May 1977 water levels had dropped significantly (see Figure 4). Lower than normal precipitation has been received in this area since April 1976. Northward, in adjacent Heilungkiang Province, small drawdowns have also occurred in the reservoirs of that area.

(S) LANDSAT imagery shows a significant reduction of reservoir levels in Shantung Province (see Figure 5). Below normal precipitation in the Shantung Hills between September 1976 and April 1977 was eased by above normal rainfall during the last third of April and in the middle of May. Despite low water levels, which may have been caused by irrigation drawdowns, LANDSAT imagery reveals that early crops show good infrared reflectance in southern Shantung and northern Kiangsu Provinces. Chinese public statements from Anhwei Province reported a serious drought "rarely seen in a hundred years." Although overall provincial precipitation for September 1976 through May 1977 has been 90 percent of normal, there have been marked departures in some areas. Press reports and meteorological data indicate that the main

Landsat II Imagery, Shantung Peninsula, May 1977

Figure 2



The Red along the northern coast indicates high plant vigor. (The tan and gray spots within the red are villages and towns.) Farther inland the crop condition is only fair. Water levels in reservoirs (within the dashed line) are slightly lower than in 1976.

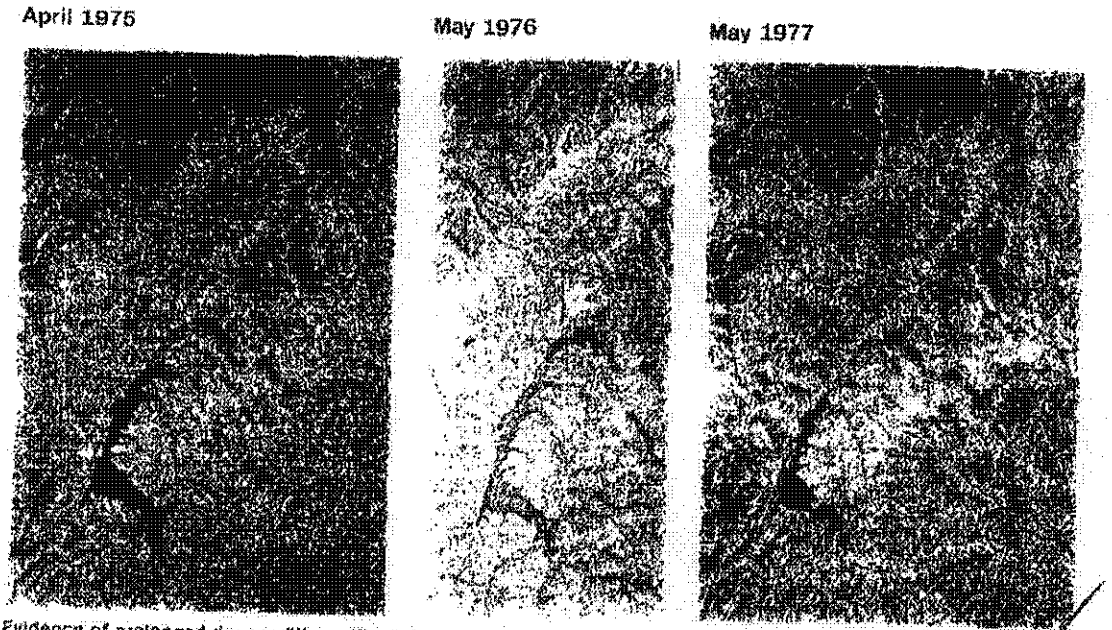
SECRET
573270 6-77 CIA

Approved For Release 2001/04/09 : CIA-RDP79-01056A000100010001-7

Approved for Release: 2017/12/01 C05092470

Landsat II Imagery, Kirin Province

Figure 4



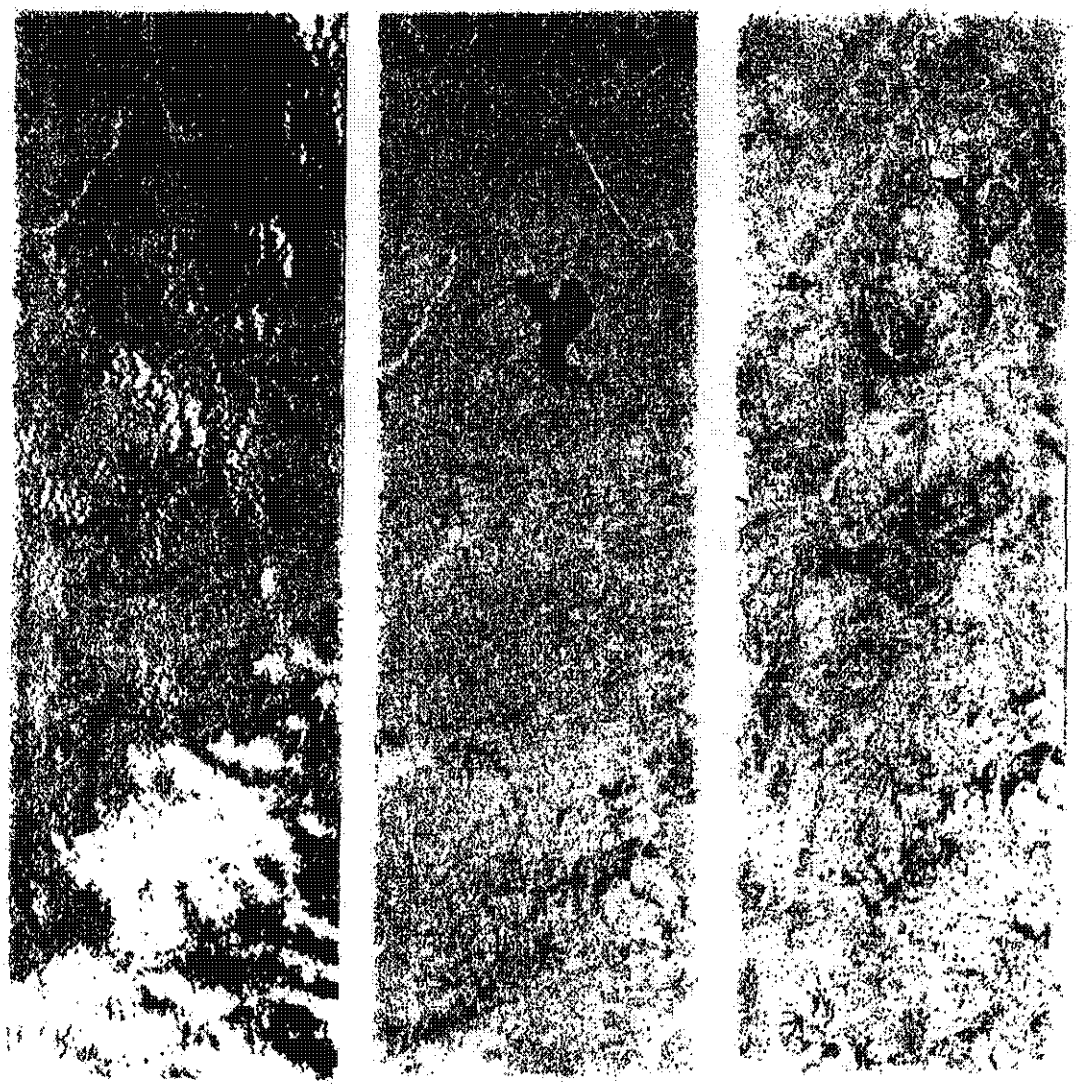
Evidence of prolonged dry conditions. Water in reservoirs has receded over the two year period.

SECRET
573271 6-77 CIA

Landsat II Imagery, Shantung Province

Figure 5

May 1976 September 1976 April 1977



Severity of drought is indicated by the decrease in the amount of water in reservoirs over the one year period. Water in the reservoirs decreased slightly from May to September 1976, and some of the reservoirs were almost dry as of April 1977.

SECRET
573269 6-77 CIA

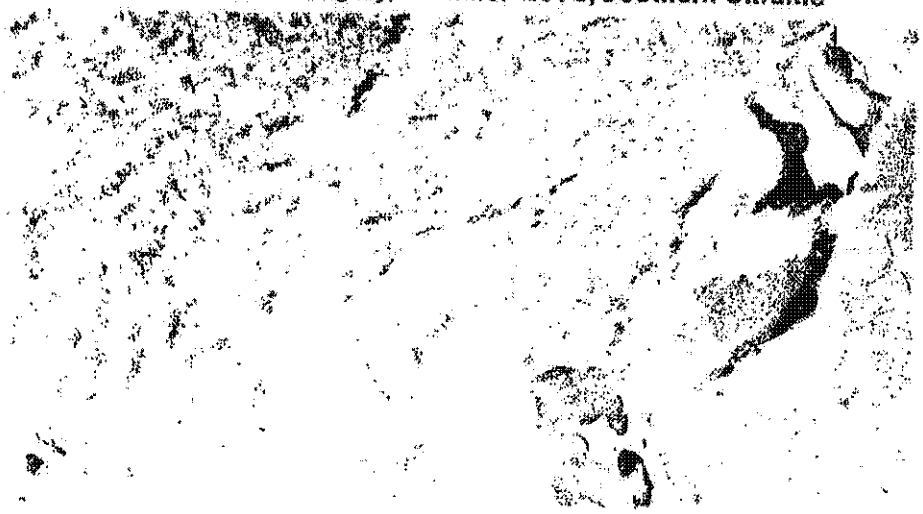
Secret
NOFORN

USSR: Early August Prospects for Grain Production

Secret
GC AB 77-004
10 August 1977

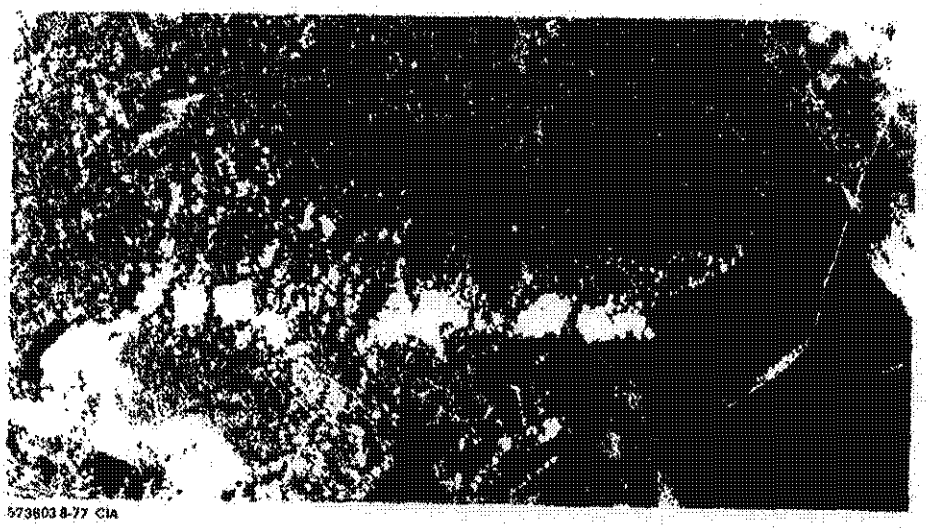
SECRET

Image A.
~~Image C.~~ LANDSAT II Imagery, Summer 1976, Southern Ukraine



Excellent IR return from the 1977 imagery indicates improved crop vigor levels in this year's winter wheat.

Image B.
~~Image D.~~ LANDSAT II Imagery, Summer 1977, Southern Ukraine



573803 8-77 CIA

SECRET *NOFORN*

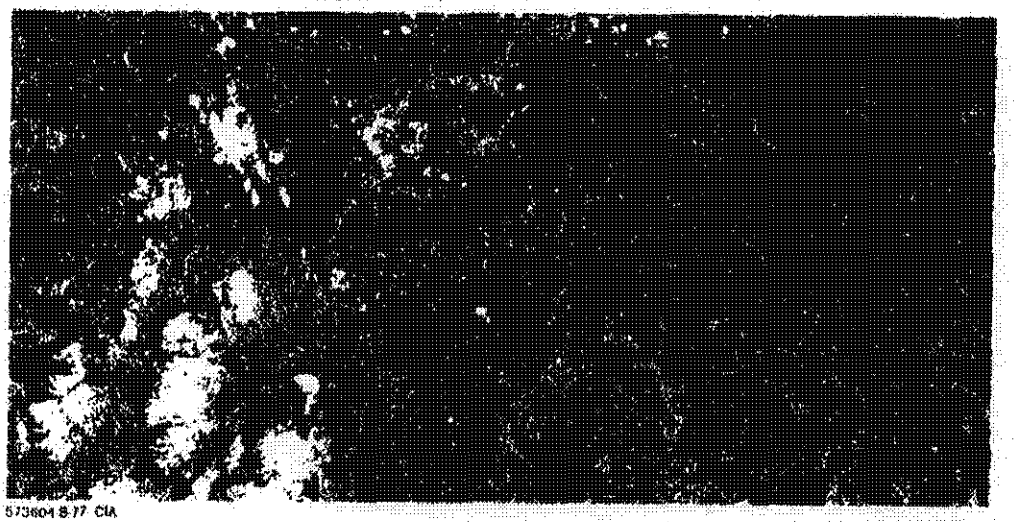
SECRET

SECRET

Image C.
~~Image A:~~ **LANDSAT II Imagery, July 1976, Northern Kazakhstan**

Imagery depicts the same spring wheat region at milky-ripe stage of development – when the kernels form in the grain head. Good IR return on 1976 imagery denotes substantially better crop conditions last year.

Image D.
~~Image B:~~ **LANDSAT II Imagery, July 1977, Northern Kazakhstan**



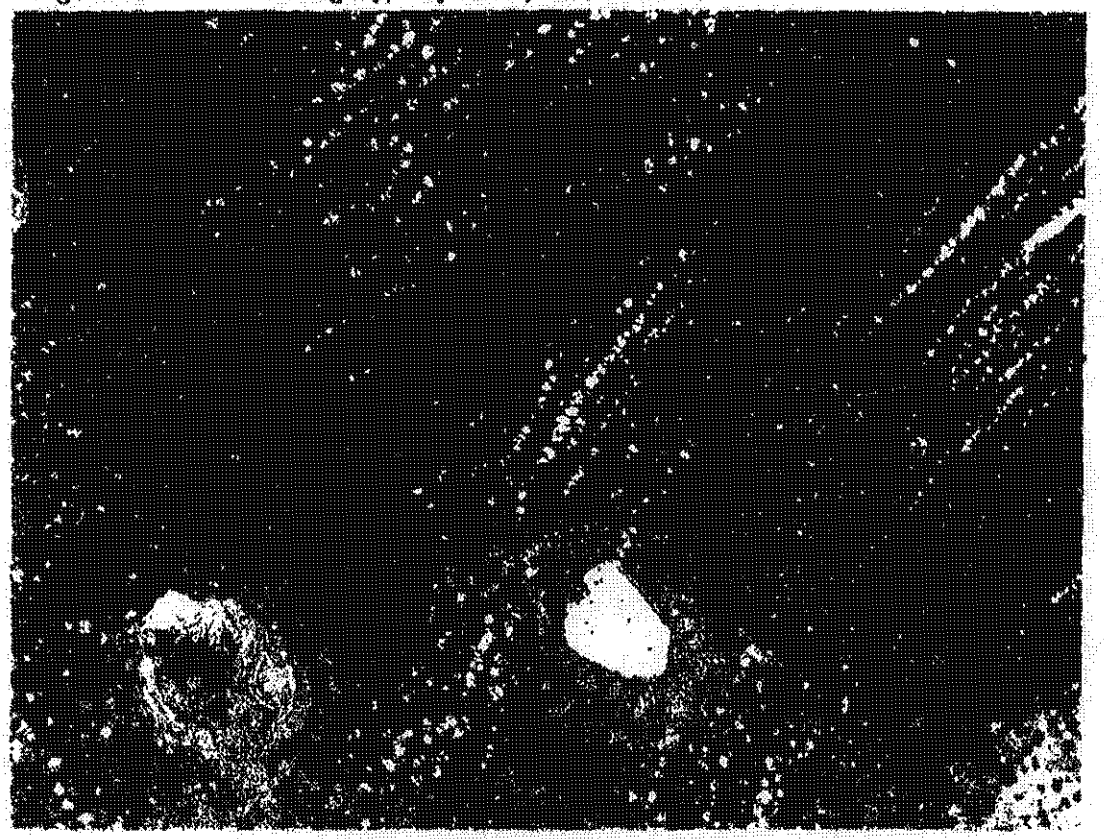
573604 8-77 CIA

SECRET *NOFORN*

SECRET

SECRET

Image E. LANDSAT II Imagery, July 1977, West Siberia



Imagery depicts localized rainfall pattern in spring wheat region. Red IR return indicates good crop vigor from recent shower activity.

573602 8-77 CIA

SECRET *NOFORN*

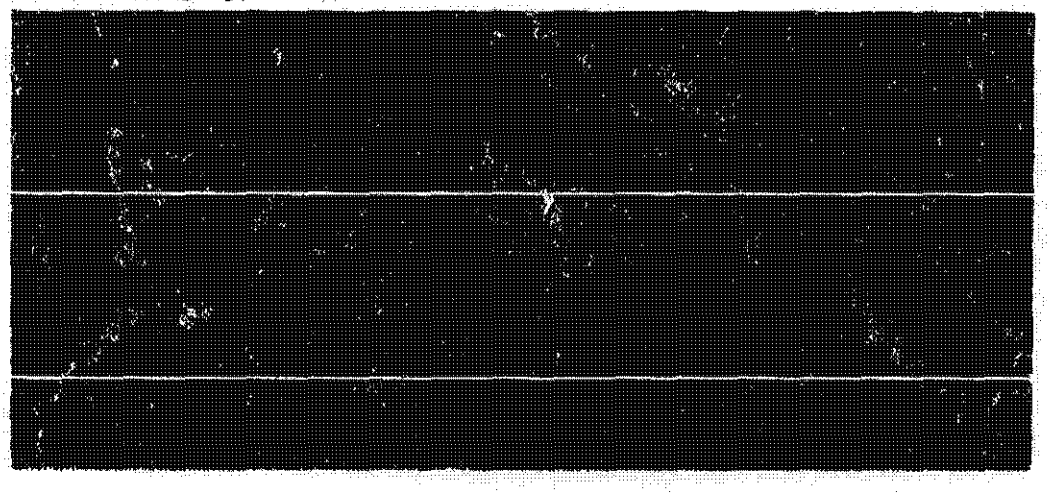
SECRET

Secret
NOFORN

USSR–Current Status of the 1977 Grain Crop

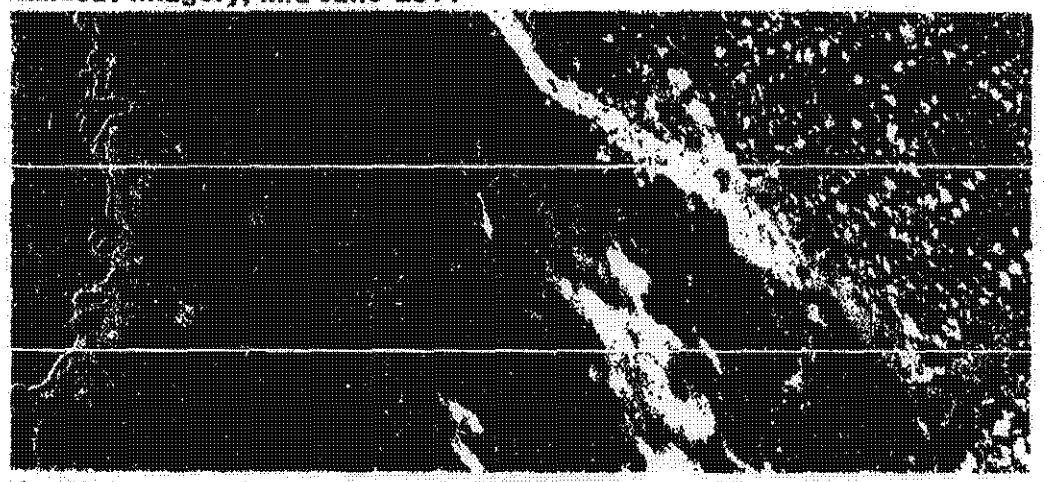
Secret
GC AB 77-003
8 July 1977

Landsat Imagery, Mid-June 1976



Bright infra-red reflectance (IR) in the spring wheat region of West Siberia depicts equally good crop vigor levels for the last two years.

Landsat Imagery, Mid-June 1977



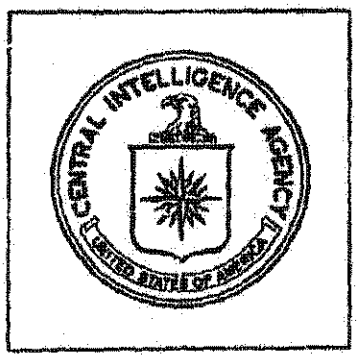
523405 7-77 CIA

SECRET
NOFORN

* Note: Due to methods used in processing red return may be slightly different.

Area of imagery

~~Secret~~
No Foreign Dissem



Strategic Intelligence from ERTS? An Analysis of Digital Data on Soviet ICBM Sites

~~Secret~~
GCR RP 75-23
June 1975

Approved For Release 1999/09/26 : CIA-RDP86T00608R000600140007-5

Approved for Release: 2017/12/01 C05092470

SUMMARY

The Earth Resources Technology Satellite, ERTS-1 (recently renamed LANDSAT-1), and its successor, LANDSAT-2, are providing the world with a revolutionary form of electro-optical overhead imagery at very low cost to the consumer. ERTS products are freely available for purchase from the United States, and a growing number of countries are building their own ground receiving stations.

ERTS data could be a source of strategic intelligence for countries that do not have access to overhead reconnaissance systems but do have strategic missile-targeting and other military requirements. Because of the growing usage of ERTS data and de-centralization of dissemination centers, the difficulty of detecting foreign military intelligence use of that data is increasing rapidly. This study reveals little evidence that foreign countries are exploiting the military and strategic intelligence potential of purchased ERTS data; but the Peoples Republic of China, which has shown interest in ERTS data and has made a considerable effort to obtain geodetic information and maps covering the Soviet Union and other areas, appears to be a possible user of ERTS data for such applications.

An assessment of standard ERTS multi-spectral film coverage of selected Soviet areas indicates that the Chinese could now use it to identify and target large cities, airports, port facilities, and transportation routes. ERTS digital images and data, supplemented by collateral information, could be used to map and target even smaller features, such as the larger Soviet SAM sites and soft ICBM sites. These applications would be particularly useful to the PRC for that part of the USSR within several hundred kilometers of the Sino-Soviet border, an area vitally important to the Chinese, where few other sources of geodetic information are available. Even the ERTS digital data has insufficient "resolution," however, for targeting hard Soviet ICBM sites.

In retrospect, it is clear that there was no way to precisely predict the full information value of the ERTS MSS data. This experience, coupled with the wide range of exotic remote sensors now under development, suggests that the military identification and mapping capabilities of each new unclassified satellite/sensor combination should be thoroughly evaluated.

NOTE—This research paper was prepared by the Office of Geographic and Cartographic Research. Technical assistance was provided by the Office of Research and Development and the National Photographic Interpretation Center. Technical data relative to mapping and certain other aspects of ERTS were taken from reports of the U.S. Geological Survey (EROS Program Cartography Office). The paper was coordinated with officers of the Directorate for Intelligence and the Directorate for Science and Technology. Comments and questions may be directed to [redacted] Code 143, Extension 2706, or [redacted] Code 143, Extension 3508.

25X1A9a 25X1A9a 25X1A9a