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SECRET

23 January 1975

NOTE FOR: A/DDS&T

Sayre:

Attached is additional material on the domestic uses of photography from classified systems per your request. As you will see this approaches the question from a somewhat different perspective than the NPIC material, and I tried not to duplicate the data already in John's memo. Several of the items covered in John's outline, of course, have broad involvement.

If this overall subject is to be treated in any material going beyond simply backup for the Director, then I urge that the material be consolidated. if you think it is likely to become a full-fledged topic for review, we can work with John and begin putting it together along those lines.

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Attachment

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WARNING NOTICE
SENSITIVE INTELLIGENCE SOURCES

SUBJECT: Civil Applications Uses of Domestic Photography from Classified Intelligence Systems

1. The most substantial use of photography obtained from classified systems for domestic purposes and the one that has been underway for the longest period of time is the use of classified photography of the United States by the Department of Interior for the production of unclassified topographic maps. Since the beginning of satellite operations, the Department of Defense has used photography of the United States to make special military maps, to perform geodetic measurements required for targetting US missiles and to meet other military needs. In addition to the many pictures of the United States taken to support these military requirements, other photographs are routinely taken over domestic areas in order to get "ground truth" for satellite performance tests and other intelligence-related support such as photo interpreter training and analyses. Of total satellite film exposures world-wide, about seven percent is used over the US for these purposes.

Allocation of Satellite Imagery by Geographic Area
(Percent of Total Film Flown)

Imagery of Foreign Areas		93.0%
Imagery of US		7.0%
of which:		
Pre-launch tests (unexposed)	.5%	
Satellite test/engineering	3.5%	
Mapping, Charting, Geodesy (including military)	2.5%	
Special Intelligence Support	.3%	
Other Direct Civil Applications	.2%	
	7.0%	
TOTAL		100%

Background

2. By the mid-1960's, it became apparent that satellite photography, which was being routinely taken of the United States for military mapping and intelligence support purposes, could also be used to reduce the cost of the civil topographic mapping program. In 1967 Congress appropriated money to the Department of Interior to build a secure facility at Reston which the US Geological Survey (USGS) has since operated to retain and convert photography from classified satellites into unclassified topographic maps. Over the years this application has resulted in only a small amount of film being expended beyond that which was required over the US for system tests and military and intelligence support purposes.

3. The support given to the civilian mapping program has been judged to be a useful and cost effective contribution to federal operations, and the other instances of support involving photography of the US have benefited the public interest without significant additional cost to the intelligence community. It has appeared appropriate to continue to provide a way for the civilian agencies to make use of this valuable resource of available photography; use of the USGS facility at Reston by civil agencies has been growing.

4. Possible criticism could be levied on the intelligence community for being involved in a program which takes pictures of domestic areas from intelligence platforms. Recognizing this possibility and to give assurance that the intelligence community would have no role in passing judgment on the need for such coverage or on how the data would be used, a Committee chaired by the Office of the President's Science Advisor which consisted of representatives of interested civilian agencies was used from 1966 until 1973. This committee, known as the "ARGO Steering Committee," reviewed any requirements for coverage by a member agency and requests judged to be sufficiently important were then passed to the community's tasking mechanism for the satellite system. If the requests could be satisfied without interfering with the intelligence missions, the pictures were taken and given to cleared people from the requesting agency. In most cases the USGS facility at Reston is used to store and analyze the photography. This committee was disbanded when

the Science Advisor's Office was abolished in 1973, and plans to reconstitute the group under the auspices of the US Geological Survey or similar instrumentality have been under study. By using such a civil agency committee as an interface, there is full assurance that the intelligence community has no involvement in the selection and end use of the photography.

5. In 1972-73, the Office of Management and Budget (OMB) conducted a study of civilian mapping, charting, and geodesy (MC&G) requirements, operations, products, and methods. A summary of the investigation, conclusions, and recommendations was published by OMB in July 1973 under the title, "Report of the Federal Mapping Task Force (FMTF) on Mapping, Charting, Geodesy and Surveying." Three of the recommendations made in this report were:

a. "The once-over coverage of the United States with suitable cloud-free photographs by the reconnaissance satellite system be endorsed as a national domestic requirement, to be completed within one year."

b. "Recoverage be provided to an extent of 750,000 square statute miles, unique, 90 percent cloud-free, per year. Such an allocation is to be considered separate from and without any impingement on the military MC&G requirement."

c. Development of a common data base (photo repository) of materials derived from classified systems for use in civil applications.

The FMTF Report as a whole, and its various recommendations have been under review within affected federal agencies and departments, but have not been finally approved or fully implemented to date.

6. Several Departments have been conducting pilot studies in the Reston facility that are directly or indirectly associated with MC&G activities. Some of the agencies in these Departments have already indi-

cated a commitment to utilize the classified system source materials in their programs. This has been accomplished with a certain amount of program risk involved since their requirements have not been approved formally by the USIB and only a limited amount of imagery has been available in direct support of their programs. There is under review a formal request from these agencies for USIB approval and assurances concerning the long run availability of coverage of the US from classified systems to support their programs.

Examples of On-Going Programs

7. Department of Agriculture. The Forest Service has been conducting pilot studies in the USGS classified facility since 1972. As a result of these investigations, the Forest Service has identified several programs that have been proposed for implementation with the support of satellite imagery.

a. National Forest Inventory: The Forest Service has adopted a mapping system based on the USGS 1:24,000-scale quadrangles that cover the National Forests. Resource "overlays" will be developed that include timber classification, slope information, soil classification, mineral activities, communication information, administrative sites, etc.

b. Monitor Disturbances on Forest Lands: The Forest Service also is responsible for maintaining an inventory of forest resources (area, location, timber types, and volume) on a nationwide basis. The inventory cycle is 5-10 years and is determined by the rate of change in the area.

8. The Soil Conservation Service, Statistical Reporting Service, and the Agricultural Stabilization and Conservation Service also are conducting investigations in the use of satellite imagery to support their programs.

9. Department of the Army, Corps of Engineers (Civil Works). The Corps of Engineers (Civil Works) is responsible for the accomplishment of many domestic programs that can be supported by satellite imagery. Imagery has been used to develop geologic analyses for proposed water resource projects, to investigate sites to determine their potential for pumped-storage power facilities, and to do base-line environmental mapping for regional water resource studies. Imagery will also be used to locate and monitor coastal and river-bank erosion problems, monitor Federal lands to limit encroachments, and to assess flood hazards and damages.

10. Department of Commerce, National Oceanic and Atmospheric Administration (NOAA). The National Ocean Survey (NOS), NOAA, has the assigned mission to produce and maintain navigational charts (aeronautical and nautical) for the US and surrounding coastal waters. The program requirements are to revise the aeronautical charts twice a year and the nautical charts as required by changes in terrain and cultural features. Timely acquisition of photography of the type provided by classified systems is essential to update these charts. NOAA also has used imagery to assess damage after coastal flooding, and to monitor ice movement in the Great Lakes and locate coastal fish populations.

11. Department of the Interior. The Geological Survey has been utilizing the materials from the satellite system in support of the National Mapping Program since 1969. The Survey has instituted other activities that include a Land Use and Data Analysis (LUDA) program, environmental studies, and the classification and inventory of natural resources.

12. In addition to these programs, the Bureau of Land Management and the Bureau of Indian Affairs also have pilot activities in the classified facility. These agencies are actively engaged in the administration and management of approximately 30 percent of the land area of the US. For these purposes, satellite imagery provides an excellent and economical management tool to classify and monitor the natural and man-created effects on the environment.

Mechanism for Approving Civil Requirements

13. Until 1973, the committee (ARGO) chaired by the Office of the President's Scientific Advisor and composed of representatives from interested civilian agencies reviewed civil requirements for imagery and passed these to the United States Intelligence Board's (USIB) Committee on Imagery Requirements and Exploitation (COMIREX). This arrangement avoided intelligence community involvement in passing judgment on the validity of the needs expressed by the civil agencies and on the subsequent use of the data. The ARGO Committee was disbanded in 1973 when the Science Advisor's Office was abolished. A new mechanism is needed to act as the intermediary between civil users and the intelligence community; in the interim the guidelines and channels developed by the ARGO Committee continue to be used.

14. The DCI has approved access by personnel in the civil agencies to classified satellite imagery, but neither the DCI nor the intelligence community are involved in decisions concerning the civil user's needs or priorities. The DCI does have the responsibility to ensure that collection to satisfy civil needs does not interfere with the national intelligence mission.