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Remote Imagery Support for International Organizations

Suggested criteria for providing remote sensing support to international organizations include superiority of multilateral exploitation, fair price, declassification, and nondiscriminatory access.

MY BRIEF REMARKS this morning address the topic of remote imagery support for international organizations, which necessarily raises the related issues of program integration, program financing, data declassification, and protection of "national means of verification" required under international arms control agreements. What I say reflects my personal views, not those of The Rand Corporation or any research sponsor.

Rand Corporation or any research sponsor. A fitting definition of "remote"—found in Webster's Third International Dictionary to be "located out of the way,"¹ helps explain in Herman Melville's phrase, "a mob of unnecessary duplicates..."²

Starting with the presumption that there are no embarrassing questions, only embarrassing answers, one may ask what progress has been made since the public report in July 1973 of the Federal Mapping Task Force³ to end "disturbing proliferation and duplication of activity..." and to provide "advanced technological capability to the mapping community...?"⁴

If there is still a "disturbing proliferation and duplication of activity," and "development of expensive systems for civilian use that cannot compete in any meaningful way with DOD-developed techniques," as stated by the Federal Mapping Task Force in 1973,⁵ then the provision of appropriate remote sensing support for international organiza-

³ Executive Office of the President, Office of Management and Budget, Report of the Federal Mapping Task Force on Mapping, Charting, Geodesy and Surveying (July 1973).

⁴ Ibid., pp. i, iv.

⁵ Ibid., p. 7.

PHOTOGRAMMETRIC ENGINEERING AND REMOTE SENSING, Vol. 42, No. 2, February 1976, pp. 185-187. tions requires *both* development of international organizational capabilities to exploit imagery and reform of the institutional structure by which remote sensing capabilities of the U.S. Government can be made available to international organizations.

Among the criteria to be applied in considering remote sensing support for international organizations I would include the following:

First, to the extent compatible with other criteria, national remote sensing capabilities should be made available to international organizations where either the *product* of multilateral analysis or the *process* of multilateral exploitation is superior to solely national means of exploitation. For example, multilateral participation in global population or commodity forecasts may stimulate corrective policies more than access to unilateral national forecasts.

Second, national remote sensing capabilities should be made available at a fair price in money or offset services, generally not less than the marginal cost of providing access to remote sensing facilities or products. There may be situations-for example, provision of imagery for mitigation of natural disasters-in which a donation of remote sensing services would be appropriate, just as there may be situations in which research and development and other nonrecurring costs should be included in calculation of prices for access to remote sensing readout channelsfor example, where capabilities developed at considerable expense to U.S. taxpayers are extensively utilized by foreign customers without substantial nonmonetary benefits accruing to the United States. Pricing alternatives for commercially useful technology of the National Aeronautics and Space Ad-

¹ 1961 edition, p. 1921.

² Moby Dick, Chap. 41, p. 107.

ministration were studied at Rand in 1974.⁶ Optimal pricing practices may depend upon the price-elasticity of demand and the distribution of benefits, but in general charging at least the marginal cost of a service minimizes the risk of wasteful utilization—as with national intelligence which has been provided as a "free good," with consequential overtasking of national intelligence producers.

Third, national remote sensing imagery should be made available on an unclassified basis to the fullest extent practical, consistent however with the protection of "intelligence sources and methods", in the United States a responsibility of the Director of Central Intelligence under the National Security Act of 1947.7 To the extent that imagery and other remote sensing data cannot be made public, to protect as an incremental margin of intelligence capabilities the "national technical means of verification" recognized in the SALT agreements,8 the products of such remote sensing should be made available on an unclassified basis to the fullest extent practical, and where not practical, such compartmented products should be made available to a sufficiently large set of relevant domestic agency officials, who in turn may find opportunities to exchange information with international organizations.

Fourth, national remote sensing of foreign states provided international organizations should be made available to the states which are the subject of coverage at nondiscriminatory prices, or in return for offset services. A foreign state-for example, Brazil, which has objected to third state distribution of natural resources data from remote sensing-should receive timely notice and opportunity to purchase such remotely obtained imagery as is made publicly available to an international organization. Alternatively, as has occurred with the Inter-American Geodetic Survey, a state should be able to provide services-in-kind, as by assisting with place-names in joint mapping programs.

⁶ C. Wolf, Jr., W. R. Harris, R. E. Klitgaard, J. R. Nelson, and J. P. Stein, with assistance of M. Baeza, *Pricing and Recoupment Policies for Commercially Useful Technology Resulting from NASA Programs*, R-1671-NASA, The Rand Corporation, Santa Monica, California, January 1975.

⁷ 50 U.S.C.A. §403(d) (3) (1970 ed.) See U.S. v. Marchetti, 466 F.2d 1309 (C.A.4, 1972); Knopf v. Colby, _____ F.2d ____ (C.A. 4, 1975).

⁸ See the Interim Agreement... With Respect to the Limitation of Strategic Offensive Arms, Art. V(2); ABM Treaty, Art. XII(2).

Some would argue that application of these four criteria: superiority of multilateral exploitation, fair price, declassification consistent with protection of "intelligence sources and methods," and nondiscriminatory access of affected states to remotely obtained imagery describe a null set-that national exploitation, with or without bilateral intelligence exchanges, is better; that the fair price of most imagery would inhibit access by financially weak international organizations, bearing in mind Werhner von Braun's observation that "we can lick gravity, but sometimes the paperwork is overwhelming"; that declassification is per se inconsistent with protection of "intelligence sources and methods," or that access by affected states would exacerbate problems in the operation of remote imagery systems.

Substantial opportunities for economic savings and substantial fears of jeopardy to verification systems for arms control are raised by the issue of declassification. The subject is, paradoxically, one which cannot be fully discussed *a priori*, but in testimony before the Commission on the Organization of the Government for the Conduct of Foreign Policy known as the Murphy Commission, the Director of Central Intelligence, Mr. Colby, noted:

In the past some systems, such as the U-2 aircraft, have been used to support showpack studies in the American west and to photograph hurricane, earthquake, and flood damage for national emergency relief and economic planning purposes.⁹

On the basis of the past proceedings of the Murphy Commission's Intelligence Panel, it is my personal opinion that some considerable declassification measures are both possible and desirable, so as to assure that imagery products are publicly available, consistent with appropriate protection of "intelligence sources and methods." The Environmental Photointerpretation Center of the Environmental Protection Agency serves as one example of an organization which is exploiting imagery for planning purposes. But without appropriate declassification, imagery support of international organizations will be impeded.

When remotely derived imagery is obtainable from unclassified or declassifiable sources, the National Aeronautics and Space Administration or other imagery exploiting

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⁹ Statement of the Director of Central Intelligence, William E. Colby, November 7, 1973, Commission Document 200982.

agencies may enter into cooperative arrangements with international organizations.

If, however, imagery available to a member-agency of the United States Intelligence Board may not be fully declassified without jeopardizing "intelligence sources and methods," there remains the possibility that a report derived from the exploitation of that imagery may appropriately be declassified.

But in the course of the Murphy Commission's review of governmental organization for the conduct of foreign policy, it became apparent that no member-agency of the United States Intelligence Board interpreted its organic charter as imposing a duty to support the informational needs of the Secretariat of the United Nations, U.N. specialized agencies, or regional organizations such as the Organization of American States. Without designation of specific responsibility within a member-agency of the United States Intelligence Board, the flow of U.S. imagery exploitation to international organizations may be both whimsical-perhaps a quick decision of the Secretary of State-and infrequent. Both to assure systematic review of imagery for sharing with international organizations and to protect "intelligence sources and methods," it would appear prudent to designate the Bureau of Intelligence and Research in the Department of State as the Liaison agency of the U.S. Intelligence Board for

sharing of intelligence-related) imagery with international organizations.

The Secretary-General of the United Nations has a duty, under Article 99 of the U.N. Charter, to bring to the attention of the Security Council threats to international peace and security; but he does not have the informational resources at hand. Would not the debate in the United Nations be enhanced in its relevance and timeliness by some modicum of imagery support by member states to the Office of the Secretary-General, perhaps as a service-in-kind allowable as a portion of the financial dues of contributing member states?

A recipe for remote sensing which is seasoned judiciously with declassification ought to improve upon Mrs. Glasse's recipe for gravy soup in her treatise on *Cookery* in the year 1747: "Let it stew over a slow fire, 'til half is wasted."

Even with broader public availability of imagery products, one should not assume that either nation states or international organizations would be immedately prepared for substantial exchanges of remotely derived imagery. But the objective of broadened imagery support for international organizations should be kept in mind, alongside Victor Hugo's observation that "Knowing exactly how much of the future can be introduced into the present is the secret of great government."

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