MEMORANDUM FOR DR. FLAX

SUBJECT: Department of Agriculture Press Release on a World Crop Satellite

On November 9, Mr. Len Jaffe called from NASA to "coordinate a press release with the DOD." He read the attached release as shown by the original black type. He informed me that the release had been sent to NASA for coordination "by someone in the White House," and was to be used by the President in a news conference to be held on November 10.

I asked Mr. Jaffe if the proposed release had been coordinated by the State Department or the DCL. When he stated positively that it had not, I told him that I strongly recommend such coordination, adding that from a DOD point-of-view the release was unacceptable.

I advised Mr. Reber of the situation at once and he got in touch with Mr. Sheldon, pointing out the implications of the release, particularly as they might affect the responsibilities of the DCL. Mr. Reber then telephoned Dr. Seamans (who by this time was in conference with Mr. Jaffe), who advised him that NASA was (1) re-writing the release to make it more acceptable, and (2) was very reluctant to "kill" the release, since NASA has no authority, as yet, to control or coordinate the earth-sensing activities of other agencies. He agreed to furnish a copy of NASA's revised version to us (all NASA revisions are in red on the attached copy).

Thursday morning (November 10) Mr. Reber had a number of telephone conferences with Mr. Sheldon, revisions to the NASA text were furnished to these three people (see ink entries on the release) and were accepted. Mr. Sheldon relayed the DCI's request that Mr. Reber give a "where we stand"
briefing to Secretaries Freeman, Connor, and Udall, with Mr. Freeman as first priority. Mr. Reber met briefly with Mr. Vance to inform him of the general situation and to obtain his concurrence in briefing Secretary Freeman.

Just before noon, Mr. Reber, and I met with Secretary Freeman for about 40 minutes. Mr. Reber briefed in some detail, beginning with U-2 operations and moving to the present. He discussed current capabilities and stressed the key role of satellite reconnaissance in national policy and defense.

After listening very attentively, Mr. Freeman was quick to press for a reason as to why he was being briefed at this time, pointing out that he had surmised most of what he had just heard. His question led to a generalized discussion of the proposed Department of Agriculture press release. Mr. Freeman was not aware that a press release had gone forward and did not know its contents (although he was well aware of his Department's work in the area); however, he was quick to see the importance of proper coordination and timing in such announcements. He volunteered to "call the Ranch and kill the release," but decided to await Dr. Seamans' actions.

Secretary Freeman assured us that he would advise the proper Department of Agriculture employees to move cautiously in making public statements on earth sensing. He deplored the absence of a central federal clearing-house for earth sensing matters. He asked us to send him a list of cleared people in his Department. After a few pleasantries, we left.

Mr. Reber called and Mr. Sheldon this afternoon, advising them of our meeting with Secretary Freeman.

Paul E. Worthman
Colonel, USAF
FOR IMMEDIATE RELEASE

Office of the White House Press Secretary
(Fort Sam Houston, Texas)

The President has been advised by Secretary of Agriculture Freeman that the first accurate information on world crop conditions may soon be determined from pictures of a space-satellite system now under consideration, for made by remote-sensing equipment orbiting the earth in a space-satellite.

A year's research by the U. S. Department of Agriculture, supported by the National Aeronautics and Space Administration, indicates such a system is feasible, the President said. The sensing equipment will be so sensitive that it will be able to determine, not only the types of crops being grown and their acreage, but also the extent of drought, flood, fire, or insect and disease damage to crops and timber.

"In a world in which food is rapidly becoming more important than armies, this new space system may well afford us and cooperating countries a heretofore unimagined opportunity to carry forward our Food for Peace program," the President said.
A space-borne system could offer a number of advantages over observers on the ground or cameras in manned aircraft. For example, a single high quality picture from space such as taken from Gemini over a single high quality picture covers the same area as several hundred conventional photographs from aircraft. A space picture would also have the high quality found only in a uniformly lighted scene and repetitive photographing of the same areas would be significantly easier and cheaper with the satellite than with conventional methods.

At field stations of USDA's Agricultural Research Service and the Forest Service and in cooperation with several universities, USDA scientists already have learned:

- How to interpret photographs that record from a distance the effects of salt, moisture, and general soil type on the vitality of plant growth.

- How to identify certain crops by their spectral signatures, or their specific wavelengths.

- How to use aerial photography for early detection of forest and crop insect and disease infestations.

- How to interpret and apply the agricultural information contained in thousands of photographs and miles of magnetic tape.
*How to determine amounts and types of surface water
or moisture.

"We are contemplating a world that in the year 2000 is
projected to have on its surface some 6½ billion people.
It has been estimated that all of these people will have
to be supported on a little over one-half acre of arable
land per person. This means that both agricultural research
and the collection of accurate data on world food production
must be pursued with added effort. We need sound reliable
information on which we can base sound judgments," the
President said.

The President was advised by Secretary Freeman that
the Department of Agriculture is now advising NASA on the
kinds of sophisticated instruments required for the sensing
situations that may be able to gather from
satellites, and how they must be calibrated to perform the
tremendous task required of them.

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