

23 August 1977 -

#### COMMENTS ON DR. MARK'S DRAFT LETTER TO THE PROGRAM MANAGERS

- 1. Although Dr. Mark may not wish to list it as a major topic, I believe that inevitably the MRO management will need to get into a discussion of the evolving management environment. We are badly organized to work with some of the conceivable outcomes of PRM-11.
- 2. With respect to new technologies, I believe we should look beyond the narrow interpretation of the MRO mission as one of collection. An argument can be made that we are already collecting more information than the processors, analysts, and producers can consume in an optimum way. Someone needs to look at new concepts of information processing, including aids to analysis. Why us? Because we have money, programs, and initiatives. I think this is one case where the technological imperative is justified.

Brigadier General, USAF Director MRO Staff





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## TOP SECRET



MEMORANDUM FOR DR. CHARLES W. COOK, 4C1000

B/GENERAL WILLIAM L. SHIELDS, JR., 4C1000

MR. JIMMIE D. HILL, 4C1000

M/GENERAL JOHN E. KULPA, JR., PROGRAM A, SAMSO

MR. LESLIE C. DIRKS, PROGRAM B, CIA

REAR ADMIRAL GROVER YOWELL, PROGRAM C. USN

### Gentlemen:

Now that I have had some preliminary orientations and discussions of the National Reconnaissance Program I would like to call a meeting of the Program Managers and the senior NRO Headquarters staff members for a general discussion of the major issues that will be facing the National Reconnaissance mission Program in the coming years. Fortunately, the Charter of our organization is very simple so that we have a good common starting Our mission is: "The NRP is responsible for the research, developpoint. The-Charter-seye: "ment, acquisition, and operation of all United States Government reconnaissance satellites."

The major point is, of course, that the Charter emphasizes recommaissance from space platforms and that is all that need recognizing that other concern us at the moment. On-the-other-hand, there are some quite important and complicated questions that arise even from a simple mission Charter of this kind. These questions deal both with the technolog of space-based reconnaissance and with the use of space-based systems that is compatible with the evolution of our national, There will likely be strongly divergent views within the elements of the NRO; foreign and military policies. These questions and issues need

definition and for this reason I would like to have a in depth open discussion with you in the near future.

As I see it, there are four main issues that seem to be uppermost in people's minds today that bear on the National Reconnaissance Program:

- are three separate aspects of vulnerability. One is the vulnerability that we have in case of overt Soviet action against one of our systems. This action may either be an ASAT attack or it could be denial by ground-based means. The second vulnerability is a technical failure, either at launch or on orbit, of one of our systems. The third vulnerability is the compromise of one of our systems through espionage or leaks. All of these vulnerabilities are important, and I would like to have your judgments orities / on what we should do to make our systems less susceptible to the specific dangers that I have outlined. There may, of course, be vulnerabilities that I have not included in this list.
  - 2. Declassification or "open skies!" During my short tenure in this office so far, I have seen a number of pressures in this direction both from civilian and military people. I think it is important that we develop a specific philosophy toward the declassification of any of our space-based reconnaissance systems so that we can join the debate over the declassification

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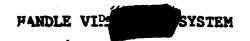
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The major point is, of course, that the Charter emphasizes reconnaissance from space platforms and that is all that need concern us at the moment. On the other hand, there are some quite important and complicated questions that arise even from a simple Charter of this kind. These questions deal both with the technolog of space-based reconnaissance and with the use of space-based systems that is compatible with the evolution of our national, foreign and military policies. These questions and issues need



definition and for this reason I would like to have a in depth discussion with you in the near future.

As I see it, there are four main issues that seem to be uppermost in people's minds today that bear on the National Reconnaissance Program:

- 1. The vulnerability of space-based systems. There are three separate aspects of vulnerability. One is the vulnerability that we have in case of overt Soviet action against one of our systems. This action may either be an ASAT attack or it could be denial by ground-based means. The second vulnerability is a technical failure, either at launch or on orbit, of one of our systems. The third vulnerability is the compromise of one of our systems through espionage or leaks. All of these vulnerabilities are important, and I would like to have your judgments on what we should do to make our systems less susceptible to the specific dangers that I have outlined. There may, of course, be vulnerabilities that I have not included in this list.
- 2. <u>Declassification or "open skies."</u> During my short tenure in this office so far, I have seen a number of pressures in this direction both from civilian and military people. I think it is important that we develop a specific philosophy toward the declassification of any of our space-based reconnaissanc systems so that we can join the debate over the declassification

issue in an aggressive way. I want to emphasize here that I believe it is not simply enough to take a negative position and to say nothing should be declassified. I believe that the pressures to do something in a declassified way will be too strong to resist. Personally, I believe it would be a mistake to declassify any of our systems but I think we should look at contingence plans that we would follow when, in our judgment, it becomes necessary to take such a step.

. . . !

- The "national" versus "tactical" use of space-based reconnaissance systems. There is a spectrum of opinion on this particular subject which I believe we should define and then understand. To some extent the discussions I have heard about this problem are governed by semantics since people tend to mean different things when they use the word "tactical." On the other hand, it is extremely important for us to understand both the opportunities and the possible pitfalls in the widespread "tactical" use of the space-based reconnaissance systems.
- 4. The emergence of new technologies. There are a number of new technical developments on the horizon which I am sure will bear very strongly on our activities. There is, for example, the development of the space shuttle vehicle and the

opportunities and problems which it presents. If a shuttle transportation system is actually developed to its full potential. then the erection of large structures in space, and the operation of man-tended systems, becomes a very real possibility. I would like to understand what such developments mean in terms of the future programs that we would want to develop. There are also technologies that are independent of the launch vehicles. For example, there are developments in cryogenics that have clear applications to space-based systems, specifically, the sensors that can be used. There have also been interesting new developments in infrared and microwave sensors that we should consider. Finally, the development of high energy space-based laser systems is something that should be studied and perhaps taken into account. These are simply a few suggestions that come to mind and I am sure there are many others. What I would like to know is whether our research and development programs cover the fields that seem to us to be most promising.

This list is obviously not complete and please feel free to add to it. As you can see, I am not interested in discussing specific project plans. Rather, I would like to see individual projects evolve from some general principles that we develop in discussing the issues that I have outlined here.

I would like to suggest that we meet in my office in Washington on Saturday, September 10, for a day long discussion of the issues that I have outlined. There will be no formal agenda but please let me know if you would like to add any other major topics that should be considered.

With best personal regards.

Hans Mark

cc: Col Harry Goodall Maj Dick Tiplady