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THE WHITE HOUSE
WASHINGTON

PRO-F-5

43

June 30, 1971

Dear Dave:

I appreciate being able to comment on your letter to Senator Ellender on the subject of the FROG and EOI systems. I think that a good case can be made for doing both systems, but I believe that in the process of making that case, it will become quite evident that we should develop FROG with urgency and that we should continue EOI in a technology development phase for at least one year and preferably two. If this were the course taken, then certainly we would have accepted Senator Ellender's advice about proceeding with one system, but I would not think we were cancelling EOI but rather postponing its development and thereby opening opportunities for improving the system in the long run.

I have a few suggestions for your letter and they are marked in the enclosed draft. I hope they will be useful.

Sincerely,



Edward E. David, Jr.
Science Adviser

Attachment
Draft letter

BYE-11946/71

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Honorable David Packard
Deputy Secretary of Defense
The Pentagon
Washington, D.C.

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106-30-004

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Dear Senator Ellender:

We discussed briefly last week the question of whether we need both the Film Readout GAMBIT (FROG) and the Electro-Optical Imaging (EOI) systems. Funds for both are in the FY 72 Budget Request before your Committee.

We are proposing the FROG system because the President has requested a system which will provide photo images frequently and regularly from anywhere in the world to Washington in a matter of hours. This system is needed at the earliest possible date. The FROG will provide this capability for the country by early 1974. An important characteristic of this system is that it builds on known and proven technology. Most components of FROG have been tested and used. The remaining task is a system integration rather than system development. The development cost for this system is estimated to be \$182M, and there will be investment costs of about \$134M prior to first launch. The investment/operating costs will be about \$100M per year thereafter until the EOI system has flown.

The EOI system has more advanced technology and will provide a more immediate image return but not before 1976, although its advocates may promise an earlier date. Including the data relay satellite which is required, the development costs are estimated to be and there will be investment costs of about prior to first launch.

GAMBIT
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The investment/operating costs will be about per year thereafter.

It is expected that either system will allow reductions in launches and costs of current photographic systems.

It is the nature of these systems that they will give us the confidence that we can, weather permitting, monitor military developments and critical sites on a day-to-day basis. This current knowledge will assure us that we will have the opportunity to resolve uncertainties through diplomatic initiatives at the earliest moment rather than being faced with advanced situations more difficult to resolve diplomatically. They will contribute significantly to a continued period of peace without crisis. The President's request for this capability reflects his determination to create a generation of peace and his knowledge of the great contribution these systems will make in reaching this objective. I strongly support the President in this view. The importance of this objective creates the need for an early capability and calls for the development of the most effective system which can evolve to meet our long term needs, which include both better resolution and variable resolution, and the like. A particular case in point is the extra assurance a system will provide so that we can safely enter into and effectively monitor

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arms limitations agreements -- strategic nuclear or those involving conventional forces. In these situations as well as in rapidly developing contingency situations, these systems will better permit us to reduce the level of armed forces in areas of potential conflict and assure the appropriate level of political rather than military response.

The only way to assure that we have an operating [] photographic system by 1974 is to proceed with the FROG. If we can wait until 1976, we should proceed with the EOI only. I am convinced we will eventually need the extra dimensions and speed of response which the EOI system can provide -- but that we cannot wait until 1976 for the [] capability.

I hope you will approve the programs we have requested for FY 1972. I will be pleased to discuss this matter with you at your convenience.

Sincerely,

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DRAFT/23 June

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*FIRST DRAFT
(SEE REVISED ONE)
IN TWX*

Dear Senator Ellender:

We discussed briefly last week the question of whether we need both the Film Readout GAMBIT (FROG) and the Electro-Optical Imaging (EOI) systems. Funds for both are in the FY 72 budget request before your Committee.

We are proposing the FROG system because the President has requested that a system which will provide photo images from anywhere in the world to Washington in a matter of hours is needed

at the earliest possible date. The FROG will provide this capability for the country by 1974. The development cost for this system is estimated to be \$182 million, there will be an investment cost of about \$90 million prior to 1974. The operating costs will be about \$100 million per year thereafter as long as the system is used.

An important characteristic of this system is that it builds on known and proven technology.

All component of FROG have been tested and used. The remaining work is system integration rather than system development.

The EOI system has more advanced technology and will provide better capability in the long run. We cannot count on this system becoming operational before 1976 although its advocates may promise an earlier date. Including the data relay satellite which is required, the development costs are estimated to be [redacted] There will be some investment in fixed facilities before the system becomes operational, probably about the same as the FROG [redacted] and the operational costs will be between [redacted] per year after 1976.

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It is the nature of these systems that they will give us the confidence that we can monitor military developments on a continuing basis. This current knowledge will assure us that we will have the opportunity to resolve uncertainties through diplomatic initiatives at the earliest moment rather than being faced with advanced situations more difficult to resolve diplomatically. They will contribute significantly to a continued period of peace without crisis. The President's request for this capability reflects his determination to create a generation of peace and his knowledge of the great contribution these systems will make in reaching this objective. I strongly support the President in this view. The importance of this objective creates the need for an early capability and calls for the development of the most effective system to meet our long term needs. A particular case in point is the high assurance such a system will provide that we can safely enter into and effectively monitor arms limitation agreements -- strategic nuclear or those involving conventional forces. Knowing that we can have the capability either of these systems will provide gives this government considerable encouragement that we can safely proceed with negotiations to reduce the level of armed forces in areas of potential conflict and assure the appropriate level of political rather than military response.

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The only way to assure that we have an operating
photographic system by 1974 is to proceed with the FROG. If we
can wait until 1976, we should proceed with the EOI only. I am con-
vinced we will eventually need the added capability and speed of
response which the EOI system can provide -- but that we cannot
wait until 1976 for this system.

I hope you will approve the programs we have requested for
FY 1972. I will be pleased to discuss this matter with you at your
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Sincerely,