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~~(S)~~ NATIONAL RECONNAISSANCE OFFICE

WASHINGTON, D.C.

OFFICE OF THE DIRECTOR

22 December 1986

MEMORANDUM FOR THE DIRECTOR OF CENTRAL INTELLIGENCE

SUBJECT: LORRI 2 SIGINT Payload Replacement

The Classified Annex to the FY 1987 Intelligence Authorizations Conference Report includes language directing that the DCI notify Congress of the configuration of the LORRI 2 SIGINT replacement payload which would be pursued with the \$15 million authorized and subsequently appropriated in FY 1987 for that purpose. Working with the rest of the Intelligence Community to establish priorities, we have identified three activities which will partially reconstitute the critical capabilities lost with LORRI 2 in the April 1986 Titan launch failure. These activities will be fully funded by the \$15 million in FY 1987.

a. GLORIA 1, a small spacecraft

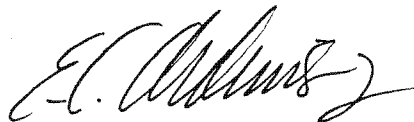
will search the 30-38 GHz EHF Band.

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c. Development of a small W-Band (90-98 GHz) search payload.

The first two activities produce complete payload elements ready for flight. The third activity involves developmental work which, if successful, would require outyear funding for flight hardware acquisition and launch. This outyear funding is contained in the Quick Response Capability Program which is a new initiative in the FY 1988 NFIP recommended program.

We plan to proceed with the first two activities and will reserve the FY 1987 funds for the third activity until availability of outyear funding is assured.



E. C. Aldridge, Jr.

1 Attachment
Draft Congressional Notification Letter



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Dear Mr. Chairman:

I am writing to notify you of our plan to recover from the loss of the LORRI 2 SIGINT collection platform in the April 1986 Titan launch failure. This collection platform was designed to provide critical intelligence on the Soviet's growing use of the Extra High Frequency (EHF) bands for radar and communications systems and to evaluate the Anti-Ballistic Missile (ABM)

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[Redacted]

Congress has authorized and appropriated \$15 million in FY 1987 to partially reconstitute the critical capabilities lost with LORRI 2. The FY 1987 Intelligence Authorizations Conference Report directed me to notify Congress of our plans to use these funds. Consistent with this available funding and Intelligence Community priorities, three activities will be funded in FY 1987.

a. GLORIA 1, a small spacecraft utilizing [Redacted]

[Redacted] will search the 30-38 GHz EHF Band.

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[Redacted]

c. Development of a small W-Band (90-98 GHz) search payload.

[Redacted]

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DRAFT

DRAFT

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The first two activities produce complete payload elements ready for flight. The third activity involves developmental work which, if successful, would require outyear funding for flight hardware acquisition and launch.

We plan to proceed with the first two activities and will reserve the FY 1987 funds for the third activity until availability of outyear funding is assured. We will apprise you of the outyear funding status as it becomes known.

Sincerely,

William J. Casey

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THE NRO STAFF

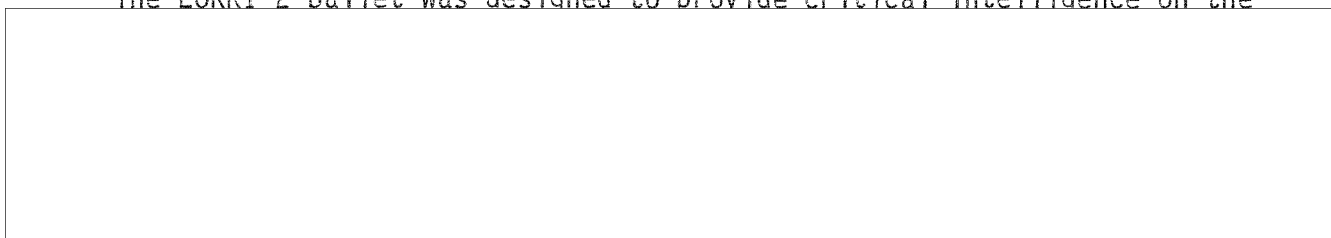
MEMORANDUM FOR MR. ALDRIDGE
MR. HILL

As per SAC's Recommendation approval

SUBJECT: LORRI 2 SIGINT Payload Replacement

The LORRI 2 SIGINT pallet was lost in the April 1986 Titan 34D/HEXAGON 20 launch failure. In order to partially reconstitute this collection capability, the Classified Annex to the Senate Select Committee on Intelligence FY 1987 Report added \$15 million to the NRP. This funding was subsequently authorized and appropriated. The Classified Annex to the FY 1987 Intelligence Authorizations Conference Report includes language directing that the DCI notify Congress of the configuration of the LORRI 2 SIGINT replacement payload that would be pursued with these funds.

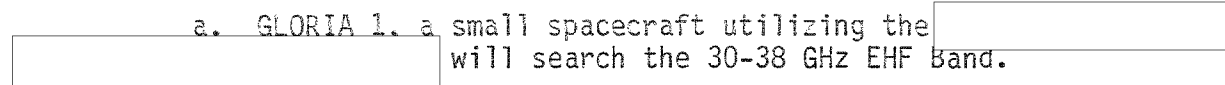
The LORRI 2 pallet was designed to provide critical intelligence on the



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Working with NSA and the rest of the Intelligence Community, we have developed several concepts to reconstitute the capabilities of the lost LORRI 2 pallet. These range from very capable collection platforms which would require multiyear funding to "quick response" concepts which would be fully funded in FY 1987. Because of the uncertainty of outyear funding, the three activities we are recommending would be fully funded by the \$15 million:

a. GLORIA 1, a small spacecraft utilizing the [redacted] will search the 30-38 GHz EHF Band.



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c. Development of a small W-Band (90-98 GHz) search payload.

[redacted] ~~HEXAGON~~
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The first two activities produce complete payload elements ready for flight. The third activity involves developmental work which, if successful, would require outyear funding for flight hardware acquisition and launch. This outyear funding is contained in the Quick Response Capability Program which is a new initiative in the FY 1988 NFIP-recommended program.

The \$15 million in FY 1987 funding has been reserved pending the DCI release of the Congressional notification letter. At that time we plan to proceed with the first two activities and will reserve the FY 1987 funds for the third activity until availability of outyear funding is assured.

TSM

THOMAS S. MOORMAN, JR.
Brigadier General, USAF
Director

1 Attachment
Congressional Language

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SSCI LANGUAGE

EHF SEARCH (+\$15.0 Million). One of the payloads lost in the April 1986 TITAN 34D failure was LORRI 2, designed to provide worldwide search and technical intelligence collection in the EHF frequency range. Current Community plans call for no satellite collection capability above 18 GHz, although there is a growing number of targets suspected of operating in the EHF range. LORRI 2 was to search this spectrum to determine collection needs in the future and the Committee understands that the NRO is considering a number of options to reconstitute this EHF search capability. Further, the NRP is considering means of rapidly providing a precision radio frequency measurement system in the VHF range which LORRI 2 was also to provide to gather technical information on the [REDACTED] The Committee recommends that \$15.0 million be provided to the NRO in FY 1987 to permit work to proceed immediately to reconstitute LORRI 2 type collection capabilities. Specific program proposals for utilization of these funds are to be provided by the NRO to Congress no later than July 30, 1986 to permit consideration in the Intelligence Authorization Conference.

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SAC LANGUAGE (APPROPRIATIONS CONF COMM)

Lorri II

The Committee recommends an unbudgeted increase of \$15,000,000 in order to partially reconstitute the intelligence collection capability of the Lorri II EHF collection system which was lost in the April 18, 1986, Titan 34D launch failure.

EHF Search AUTHORIZATION CONF COMM LANGUAGE +\$15.0 Million

The Conferees agreed to the Senate initiative to provide funding to overcome the loss of the LORRI package in April 1986. A number of low cost concepts have been developed ranging from [redacted] to more capable systems requiring additional funding in fiscal year 1988 and beyond. If these funds are appropriated, the DCI should select from among the various options and notify the Intelligence and Appropriations Committees of his plans.

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