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Office of the Secretary of Defense 5 USC 552
Chief, RDD, ESD, WHS +
Date: 03 APR 2014 Authority: EO 13526
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Reason: _____
MDR: 13 -M- 4648

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DEC 1975
U.S. NAVY

DEPARTMENT OF THE NAVY DIRECTOR FOR SCIENTIFIC AND TECHNICAL
INTELLIGENCE DIA

Subject: Satellite Survivability Testing (U)

(A) I was asked by you and the Air Force, in a memorandum to them on 17 September 1975 (attached), for a plan to build a soft X-ray facility to test satellite hardness. The plan is in the draft stage and has been reviewed by my staff. (A copy has been provided to your staff).

It is clear that deliberations on building such a facility should include consideration of the projected threat against U.S. satellites. Therefore, I request that you support DIA by providing a threat section for the plan.

(U) Preliminary discussions have been undertaken among Maj. Lopes of your staff, Dr. Soper of DIA and Col. DeAvies of my staff for development of the threat section. DIA is currently scheduled to present the plan to me on 15 December 1975 and will be staffing it with DoD components to include the Air Force.

for
John B. Walsh
Deputy Director
Strategic and Space Systems

MR S

Attachment

COL EG DeAvies/emv/25 Nov 75
OAD(SGAS) X-56188
Rewritten: JBWalsh/emv/2 Dec 75

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Authority: EO 13526
Chief, Records & Declass Div, WHS
Date: APR 03 2014

AD (SGAS) On note

13-M-4648

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DIRECTOR OF DEFENSE RESEARCH AND ENGINEERING
WASHINGTON, D. C. 20301

75-2662



16 SEP 1975

MEMORANDUM FOR Assistant Secretary of the Air Force (Research and
Development)
Director, Defense Nuclear Agency

SUBJECT: Satellite Survivability Testing (U)

(U) With an increasing reliance on space systems, their survivability is becoming increasingly important. Satellite system survivability is largely verified through analyses at the systems level. Our latest evaluations indicate that the confidence in applying these methods is low and that more reliance should be placed on testing. Evolving technology indicates that a facility for testing satellites could be developed within 5-7 years. Such a facility would provide reasonable assurance that future satellites would meet an X-ray hardness level of 10^{-3} cal/cm². The DNA POM 77-81, 9 May 1975, describes the continuing laboratory radiation simulation program and an initial description of a large, soft X-ray facility. I think we should amplify this effort to provide for testing of DSCS III and similar satellites beginning in the 1980-82 time period.

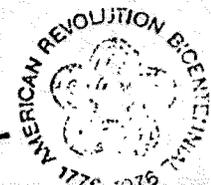
(S) I would like to have DNA develop by 20 October a plan to build a soft X-ray satellite facility. Support in the areas of nuclear criteria, and the establishment of vulnerability testing levels and those problems unique to satellite systems should be provided to DNA by the Air Force. The plan should include satellite test level specifications, schedule and costs, required actions with responsibilities and a discussion of X-ray source availability. I would appreciate a presentation with submission of the plan to include a discussion of the current state of the art, the risks involved in building a facility, and the benefits to be derived.

s/ Malcolm R. Currie

Malcolm R. Currie

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Chief, Records & Declass Div, WHS
Date: APR 03 2014

Classified by [redacted]
Subject to E.O. 11652
Automatically downgraded
[redacted] intervals.
Declassify on: 31 Dec 1999



Attachment

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MEMORANDUM FOR THE DEPUTY DIRECTOR FOR SCIENTIFIC AND TECHNICAL
INTELLIGENCE, DIA

SUBJECT: Satellite Survivability Testing, (U)

(i) DUDGE asked DIA and the Air Force, in a memorandum to them on 16 September 1975, for a plan to build a soft X-ray facility to test satellite hardness (attached). The plan is in the draft stage and has been reviewed by my staff. (A copy has been provided to your staff).

(ii) It is clear that deliberation of building such a facility should include consideration of the projected threat against U.S. satellites. Therefore, I request that you support DIA by providing a threat section for the plan and pertinent information as part of their presentation.

(iii) Preliminary discussions were undertaken among Maj. Lopes of your staff, Dr. Soper of DIA and Col. DeAvies of my staff for development of the threat section. DIA is presently scheduled to present the plan to me on 15 December 1975 and will be staffing it with components to include the Air Force.

John B. Walsh
Deputy Director
Strategic and Space Systems

Attachment

EGDeAvies
COL EGDeAvies/emv/25 Nov 75
OAD(S&AS) X-56188

AD (S&AS)

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