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MEMORANDUM FOR THE RECORD

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Authority: EO 13526  
Chief, Records & Declass Div, WHS  
Date: JUN 11 2015

SUBJECT: Future Planning for DSP (U)

(U) A meeting was held on 9 May 1980 with Drs. Dinneen, Hermann, Fossum, and Zeiberg and members of their staffs, to hear the report on joint Air Force and DARPA planning in response to the DSP Follow-On DSARC Implementing Memorandum (dated 15 February 1980).

(S) Colonel Ed Barry presented the plan for DSP-1 (i.e., DSARC Option 2). This would add crosslinks, mission data message (MDM) rebroadcast, a second color sensor and improved satellite navigation (for increased autonomy) at a delta cost of approximately \$400M over ongoing DSP funding. Two options were presented: I - higher FY81 funding, lower total funding and 10C of 1986; II - converse and 10C of late 1987. Both options were scheduled to start with satellite #14 and provide a block of four satellites (#14-17). The funding shortfalls, based on the FY81 budget and FY82 POM were as follows:

	<u>FY81</u>	<u>FY82</u>	<u>FY83</u>
Option I		98	43
Option II	13	98	86

These values are based on receiving approval of the "tailored acquisition" approach (i.e., 3080 incremental funding); without such approval, the FY82 shortfall is increased by \$110M.

(U) The following conclusions regarding the plans for DSP-1 were agreed to:

- (S) The intent is to reduce the dependence on the Overseas Ground Station (OGS) rather than to eliminate the OGS.
- (S) The anti-jam motivation behind the K-band (rather than X-band) uplink for the MDM rebroadcast adds complexity which may have a low payoff. This deserves further evaluation.
- (S) To avoid confusion, the term "Phase N" for different versions of DSP should not be promulgated. The existing satellite version is DSP and is being modified for DSP/SED. The further inclusion of the crosslink, etc., is DSP-1.
- (S) DSP-1 will commence with satellite #14 and the AF should process the D&F and should seek approval for "tailored acquisition".
- (U) OSD will decide whether to pursue Option I or II of those proposed.
- (U) The AF will work the necessary FY81 reprogramming and the FY82-86 POM.

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(S) Dr. Carl Thomas briefed the joining AF/DARPA plan for pursuing the technology of DSP II (mosaic staring sensor). This plan included the technology for mirrors, detectors, signal processing, plume phenomenology measurements, system design (to guide the technology) etc., in preparation for a potential DSP-II decision in mid-FY85 and possible IOC of 92. It also included the Advanced Sensor Demonstration (nee Mini-HALO) flight although this was not included in budgets presented. The funding shortfalls, all in the AF part of the funding, were given as:

	<u>FY81</u>	<u>FY82</u>	<u>FY83</u>
Measurements		14	10
Technology	8	12	11

(U) The following conclusions regarding the joint technology plan were agreed to:

- (U) A detailed program plan will be prepared as the basis for this joint work and will describe the schedule, detailed plans, responsibilities, funding agreed to, and decision points leading to the next generation DSP.
- (U) Over the next several years, the tasks within this broad technology program that support the design of missile surveillance and attack assessment systems should evolve to a single point manager within the Air Force.
- (U) Options (e.g.: InSb as alternative to HgCdTe) should be kept open where significant risk exists.
- (U) Agreement on the role of the Advanced Sensor Demonstration (i.e.: Mini-HALO) was deferred pending further DARPA/AF discussions on this subject.

Concurrence:

Signed  
Gerald P. Dinneen

10 JUL 1985

G.P. Dinneen, ASD (C31)

*[Handwritten signature]*  
*[Handwritten signature]*

R. Hermann, ASAF (RDL) 7 JUL 1985

R. Fossum, Director DARPA

*[Handwritten signature]*

/s/ S. L. Zeiberg

S.L. Zeiberg, DUSD (S&SS)

MR. LYNN/  
OUSDRE(DS)/75385

DEP., S&SS \_\_\_\_\_

DIR., DS *[Signature]*

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MR. LYNN

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