

~~TOP SECRET~~HANDLE VIA
BYEMAN
CONTROL SYSTEM~~(S)~~ NATIONAL RECONNAISSANCE OFFICE

WASHINGTON, D.C.

THE NRO STAFF

MEMORANDUM FOR MR. MURPHY, SS-4

SUBJECT: HEXAGON Block IV Study

Mr. Plummer has directed that a study to support HEXAGON Block IV planning be conducted within SAFSP/SAFSS, starting immediately. Since this study is not to conflict with the Search Performance Study, it should be closely held within the Staff. As indicated in the attached message, we are to send revisions to the collection and hardware requirements to SP by 6 March 1975. Request you develop these revisions in coordination with SS-7.



ROBERT A. ROSENBERG
Colonel, USAF
Acting Director

Atch

cc: SS-6

HEXAGON

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SECURITY CLASSIFICATION

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HANDLE VIA BYEMAN CONTROL SYSTEM

HEXAGON

FOR MAJ/GEN BRADBURN FROM COL ~~WHEELER~~ ^{ROSENBERG} [REDACTED]

SUBJECT: PLANNING FOR HEXAGON BLOCK IV

1. IN ACCORDANCE WITH DISCUSSIONS BETWEEN MR. PLUMMER AND YOURSELF ON 24 FEB, REQUEST YOU INITIATE A PLANNING STUDY FOR THE HEXAGON BLOCK IV. ALTHOUGH AN EXCOM DECISION FOR GO-AHEAD OF BLOCK IV IS NOT EXPECTED BEFORE JULY 1977, THE PLANNING AND PREPARATION FOR THAT DECISION SHOULD PROCEED NOW TO INSURE THAT EARLY PRELIMINARY DECISIONS ARE MADE ON TIME AND THAT NECESSARY DATA IS AVAILABLE WHEN NEEDED.

2. TECHNICAL CAPABILITIES, SCHEDULE VARIATIONS AND ASSOCIATED COSTS SHOULD BE ESTIMATED SEPARATELY FROM THE FISCAL GUIDANCE TO MAINTAIN LOW VISIBILITY ON THE ACTIVITY. ITEMS FOR BLOCK IV CONSIDERATION SHOULD

SPECIAL INSTRUCTIONS

HANDLE VIA

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D R A F T E R	TYPED NAME AND TITLE	PHONE	SIGNATURE
	LT. COL HUTCHISON	[REDACTED]	<i>Rosenberg</i>
	<i>Mr. Murphy</i> <i>Donalson</i>		TYPED (or stamped) NAME AND TITLE
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INCLUDE DESIRABILITY AND IMPACT OF CONTRACT COMPETITION
FOR SEGMENTS OF THE HEXAGON SYSTEM WHERE SIGNIFICANT
COST REDUCTION IS POSSIBLE THROUGH SIMPLIFICATION.
CHANGES TO CURRENT CAPABILITY, INCLUDED REDUCED COMPLEXITY,
SHOULD BE INCLUDED, RECOGNIZING THAT THE GOAL OF THIS
EXERCISE IS TO DETERMINE THE FEASIBILITY OF SIGNIFICANT
REDUCTIONS IN PROJECTED PROGRAM COSTS. THE WHIG STAFF
WILL PROVIDE A LIST OF REVISIONS TO THE CURRENT ^{CAPABILITY} REQUIREMENTS
BY 6 MARCH 1975. YOUR SUGGESTIONS IN THIS AREA ARE
SOLICITED; THE WHIG/WAHOO STAFF WILL BE RESPONSIVE TO YOUR
SUGGESTIONS FOR REQUIREMENTS REVISIONS THROUGHOUT THE
STUDY. IN ORDER TO ASSESS THE LONG TERM COST TRADE-OFF
IMPLEMENTATIONS, COST ESTIMATES SHOULD COVER A TEN-YEAR
PERIOD COVERING ANY POSSIBLE DEVELOPMENT, PRODUCTION AND
OPERATION OF BLOCK IV.

3. REQUEST YOU PROVIDE A PRELIMINARY PLAN BY EARLY APRIL
TO PERMIT CONSIDERATION OF DECISION MILESTONE CHANGES AND
POTENTIAL BUDGET ADJUSTMENTS BEGINNING IN FY-76 OR FY-77.
A COMPLETED PROGRAM PLAN AND RECOMMENDATIONS SHOULD BE
SUBMITTED BY LATE MAY OR EARLY JUNE. AT THE PRESENT
TIME THIS PLANNING DATA IS BEING DEVELOPED FOR THE DNRO'S

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CONSIDERATION^{only} THEREFORE, ACTIVITIES AND CONFIGURATIONS
RELATED TO THIS EFFORT SHOULD NOT BE PRESENTED OR DISCUSSED
IN ANY OF THE CURRENT INTELLIGENCE COMMUNITY STUDIES.

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PRIORITY CHARGE.

HANDLE VIA BYEMAN CONTROL SYSTEM

HEXAGON

FOR MAJ/GEN BRADBURN FROM COL ROSENBERG

SUBJECT: PLANNING FOR HEXAGON BLOCK IV

1. IN ACCORDANCE WITH DISCUSSIONS BETWEEN MR. PLUMMER AND YOURSELF ON 24 FEB, REQUEST YOU INITIATE A PLANNING STUDY FOR THE HEXAGON BLOCK IV. ALTHOUGH AN EXCOM DECISION FOR GO-AHEAD OF BLOCK IV IS NOT EXPECTED BEFORE JULY 1977, THE PLANNING AND PREPARATION FOR THAT DECISION SHOULD PROCEED NOW TO INSURE THAT EARLY PRELIMINARY DECISIONS ARE MADE ON TIME AND THAT NECESSARY DATA IS AVAILABLE WHEN NEEDED.

2. TECHNICAL CAPABILITIES, SCHEDULE VARIATIONS AND

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PAGE 2 WHIG 0331 ~~SECRET~~

ASSOCIATED COSTS SHOULD BE ESTIMATED SEPARATELY FROM THE FISCAL GUIDANCE TO MAINTAIN LOW VISIBILITY ON THE ACTIVITY. ITEMS FOR BLOCK IV CONSIDERATION SHOULD INCLUDE DESIRABILITY AND IMPACT OF CONTRACT COMPETITION FOR SEGMENTS OF THE HEXAGON SYSTEM WHERE SIGNIFICANT COST REDUCTION IS POSSIBLE THROUGH SIMPLIFICATION. CHANGES TO CURRENT CAPABILITY, INCLUDED REDUCED COMPLEXITY, SHOULD BE INCLUDED, RECOGNIZING THAT THE GOAL OF THIS EXERCISE IS TO DETERMINE THE FEASIBILITY OF SIGNIFICANT REDUCTIONS IN PROJECTED PROGRAM COSTS. THE WHIG STAFF WILL PROVIDE A LIST OF REVISIONS TO THE CURRENT CAPABILITY REQUIREMENTS BY 5 MARCH 1975. YOUR SUGGESTIONS IN THIS AREA ARE SOLICITED; THE WHIG/WHOO STAFF WILL BE RESPONSIVE TO YOUR SUGGESTIONS FOR REQUIREMENTS REVISIONS THROUGHOUT THE STUDY. IN ORDER TO ASSESS THE LONG TERM COST TRADE-OFF IMPLEMENTATIONS, COST ESTIMATES SHOULD COVER A TEN-YEAR PERIOD COVERING ANY POSSIBLE DEVELOPMENT, PRODUCTION AND OPERATION OF BLOCK IV.

3. REQUEST YOU PROVIDE A PRELIMINARY PLAN BY EARLY APRIL TO PERMIT CONSIDERATION OF DECISION MILESTONE CHANGES AND

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CONTROL SYSTEMPAGE 3 WHIG 0331 ~~SECRET~~

POTENTIAL BUDGET ADJUSTMENTS BEGINNING IN FY-76 OR FY-77.
A COMPLETED PROGRAM PLAN AND RECOMMENDATIONS SHOULD BE
SUBMITTED BY LATE MAY OR EARLY JUNE. AT THE PRESENT
TIME THIS PLANNING DATA IS BEING DEVELOPED FOR THE DNRO'S
CONSIDERATION ONLY. THEREFORE, ACTIVITIES AND CONFIGURA-
TIONS RELATED TO THIS EFFORT SHOULD NOT BE PRESENTED OR
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IN THE PROCESS OF GROUPING THESE CELLS INTO EIGHT PERIODICITIES. PRELIMINARY DATA IS NOW AVAILABLE AND WILL BE PROVIDED FOR YOUR STUDY.

PAGE 3 WHIG 0370 ~~SECRET~~

D. SOFTWARE. HARDWARE CHANGES WHICH AFFECT SYSTEM MODELING IN THE MISSION PLANNING (EAST COAST) SOFTWARE SHOULD BE IDENTIFIED. CHANGES TO THE OPERATIONAL (WEST COAST) SOFTWARE SHOULD BE COSTED.

E. FILM SUPPLY AND FILM MANAGEMENT. CHANGES IN LINE WITH CURRENT EVOLUTIONARY EFFORTS TO MAXIMIZE FILM AVAILABLE FOR EXPOSURE AGAINST REQUIREMENTS SHOULD BE INCLUDED.

F. ORBIT LIFE. ORBIT LIFE SHOULD BE 180 DAYS OR GREATER, AT ORBIT ALTITUDES COMMENSURATE WITH IMAGE QUALITY REQUIREMENTS. SIGNIFICANT COST BREAK POINT SHOULD BE IDENTIFIED.

G. MAPPING. THE MAPPING CAMERA SYSTEM SHOULD BE OMITTED. A METRIC PAN SYSTEM AS DEFINED BY THE METRIC PAN STUDY SHOULD BE INCLUDED AS A SEPARATE OPTION.

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WASHINGTON, D.C.



THE NRO STAFF

MEMORANDUM FOR COLONEL BLANKENSHIP, SS-6

SUBJECT: Collection Requirements for HEXAGON Block IV

REFERENCE: WHIG 0370, 7 March 1975

The following paragraph was added to the reference per your request:

"C. Collection Requirements. For some time COMIREX has been accounting at the 3NM X 3NM cell level. COMIREX is in the process of grouping these cells into eight periodicities. Preliminary data is now available and will be provided for your study."

Do we intend to provide the data promised? Request you set a firm suspense for this action and inform SAFSP of the date they can expect to receive the data.

ROBERT A. ROSENBERG
Colonel, USAF

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WASHINGTON, D.C.

THE NRO STAFF

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Do we intend to provide the data promised? Request you set a firm suspense for this action and inform SAFSP of the date they can expect to receive the data.

Rose
ROBERT A. ROSENBERG
Colonel, USAF

Col R

1600/20 mar

1. ICBS is finalizing the 3x3 requirements at a special meeting tomorrow. This will include the definition of mode, frequency, and quality for each grouping of cells. A written document will be provided to the NRO (SPS Task E) by 28 March.

2. During the past 2 weeks we

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have been consulting with ch/ICRS on the best way to obtain / handle the 1.5×10^6 3×3 records. Our 494 a5 contractor has defined a mutually acceptable "packing" format and we expect the data tapes to be made available to us sometime next week.

3. [] should have a copy of the SPS minutes which refer to their redelegation and give an example. However, I have taken steps to acquire the complete reform documentation for SPS use. This package should be assembled and sent on next Tuesday's courier.

4. By Monday COB, I should be in the pentagon to coordinate a memo/memoage to SP on the new area requirements. SP should have sufficient information (but not too much) by 28 March.



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THE NRO STAFF

March 6, 1975

MEMORANDUM FOR LT COLONEL HUTCHISON, SS-7

SUBJECT: SS-6 Comments on Planning for Block IV HEXAGON Message

SP should be given the opportunity to optimally design a system within cost constraints as identified using the latest definition of the search problem. The Chairman/ICRS says community is moving towards community adoption of the 3 x 3 cell and 8-periodicities some time next year. ICRS recognizes that current system software is based on 12 x 18 WAG cells and that for use by HEXAGON [] a 3 x 3 transform will have to be made.

It is highly probable that the software will have to be changed. Further, with the advent of the multi-purpose simulator in 1976, the mission planning and operational software for a 1980 HEXAGON does not appear to be an East Coast or OD&E function.

See the attached recommended changes:

"C. Requirements. For some time COMIREX has been accounting at the 3NM x 3NM cell level. COMIREX is in the process of grouping these cells into 8 periodicities. Preliminary data is available and will be provided for your study."

"D. Software. Hardware changes which affect mission planning and operational software should be identified. Necessary changes to the software should be identified and costed."

James R. Blankenship
JAMES R. BLANKENSHIP
Colonel, USAF

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SF. HERNANDEZ

6 MAR 1975

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HEXAGON

FOR COL WHEELER FROM NEUNER/ANDERSON

SUBJECT: PLANNING FOR BLOCK IV HEXAGON

REFERENCE: KVVHIG 0370, 072140Z MAR 75.

1. REQUEST FURTHER CLARIFICATION OF THE COLLECTION APPROACH PROPOSED IN PARAGRAPH (C) OF YOUR MESSAGE.
2. SPECIFIC AREA OF INTEREST IS NOW THE CONCEPT IN PARAGRAPH (C) DIFFERS FROM THE CURRENT MOB STRUCTURE BASED ON WAC CELL AND AREA CATEGORY INPUTS. WHAT ARE THE IMPLICATIONS OF THE TERM "PERIODICITY" RELATIVE TO TARGET IMPORTANCE. THIS CLARIFICATION SHOULD ALLOW US TO ASSESS THIS APPROACH AND/OR DEFINE STUDIES TO ASSESS IT.

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