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January 22, 1970

THIRD REPORT OF THE HEXAGON REVIEW COMMITTEE

References: A. BYE-13146-69, June 20, 1969: Report of the HEXAGON Review Committee

> B. BYE-13478-69, Nov. 4, 1970: Second Report of the HEXAGON Review Committee

Background

At the NRP Executive Committee meeting of June 20, 1969 the HEXAGON Review Committee recommended that:

- 1. The HEXAGON Project be funded to the minimum level necessary to meet the December 1970 initial launch date.
- 2. The CORONA launch schedule be revised to provide for
 - 5 launches in FY 1970
 - 5 launches in FY 1971
 - 2 launches in FY 1972.
- 3. The need for a buy of additional CORONA vehicles be reviewed in December 1969.

These recommendations were accepted.

The HEXAGON Review Committee then reviewed the contractors' progress on October 13, 14, and 15. It also determined that the best time to decide on whether or not to buy additional CORONAs was in January 1970.

CORONA HEXAGON

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Sources of Data

The Committee met at Perkin-Elmer on January 5, 1970; at Lockheed on January 20, 1970; and in executive session at the Satellite Test Center on January 21, 1970. A report supporting the findings below is being prepared for file at the National Reconnaissance Office.

Conclusions

The HEXAGON Review Committee reached the following conclusions:

- 1. The estimate of system reliability and confidence in meeting schedule remains as stated on June 20, 1969.
- 2. Since the scheduled launch date is only eleven months away, the program managers have high confidence that the system will function properly on orbit. Although the specifications are being met for the nominal (expected) on-orbit conditions, the system's ability to meet performance requirements at the extreme design environmental ranges is still unknown. Thermal tests at 40 degrees and 100 degrees F, previously scheduled in early February 1970 on the sensor subsystem development model, have now been postponed until late April on the first flight unit.
- 3. Most of the scheduled events (as of June 20, 1969) have slipped as much as a month. However, discretionary time (e.g., three shifts, longer shifts, 7-day work weeks) and changes in test plans have been employed to maintain the major milestone dates. Perkin-Elmer has no discretionary time remaining against their ship dates to the integrating contractor, whereas Lockheed is working only a 2-shift, 8-hour, 6-day week on their critical path only. An examination of the remaining schedule until launch reveals a few weeks available to absorb any delays which could arise from integrated testing or unexpected events.
- 4. Unexpected events will likely occur. However, these will probably cause delays of no





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more than two weeks each. Accordingly, the estimated 50 percent probability of delay in launch of not more than one month, the 75 percent probability of not more than three months, and the 95 percent probability of not more than six months is still valid.

Recommendations

Therefore, the HEXAGON Review Committee recommends no additional purchases of CORONA systems.

F. Robert Naka

Chairman

HEXAGON Review Committee

NOTE: HEXAGON Review Committee

Dr. F. Robert Naka, DDNRO CLA/OSP

Col. Lewis S. Norman, Jr., Vice Director, SAFSP (when the Committee was set up)

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