

MEMORANDUM FOR: Comptroller, National

Reconnaissance Office

SUBJECT

: Tape Recorders, Project CORONA

- I. As a part of the J-3 Configuration Development Program, a miniature tape recording system was designed and incorporated to provide diagnostic information and to aid in the analysis of system performance. Original planning and procurement action contemplated that this be accomplished on only the first four (4) systems. However, because of major changes to the system being incorporated downstream such as the Shift Register and use of Ultra-Thin Base film, the tape recording system is now being incorporated and funded through the first seven (7) flights.
- 2. In addition to the benefits derived as a diagnostic tool, NPIC has strongly urged that the tape recorder system be installed on all J-3 systems as cited in their messages and (NRO) received information copies). NPIC has indicated that the system will materially assist in the reduction of man-hours presently required to prepare frame ephemeris and will enable them to do this prior to actual receipt of the film.
- 3. As mentioned above, the present contract covers the first seven (7) J-3 systems. A total of nine (9) tape recorders were procured, one (1) for qualification and eight (8) for installation in CR-1 through CR-4 (two recorders per system). The tape recorders are then refurbished for flights CR-5 through CR-7. The only expendable hardware is commutators and analog/digital converters in each system. The contractor's proposal to incorporate tape

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In Accordance with E. O. 12958

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recorders in CR-8 through CR-16 and QCR-2 involves the procurement of six (6) additional recorders, ten (10) commutators and analog/digital converters and refurbishment of fourteen (14) recorders. A minor modification to the Automatic Digital Analog Processing System is also involved.

- 4. The total cost for the above proposal is estimated at
  Of this amount, the state of required in FY 68 and
  the balance in FY 69. The above funding contemplates procuring all
  six (6) tape recorders in FY 68 to take advantage of an approximate
  per unit price break in quantities of six versus two.
- 5. From a total cost effectiveness standpoint it is not possible to equate the above costs to the man-hours savings estimated by NPIC. However, the intangible benefits of this system as a diagnostic tool on each flight serve to justify its need. The desirability of this system was also discussed with the system was also discussed with the system was also discussed with the foregoing we recommend that this change to the CORONA Program be approved. With respect to funding requirements for FY 68, it is requested that an increased Program approval of the provided.

Comptroller
Directorate of
Science and Technology

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ADD/OSP/JHMcDonald: (26 Feb 68)