ELECTRO-OPTICAL IMAGING

The Electro-Optical Imaging (EOI) system initial system definition effort was completed in December 1970. The final part (Phase II) of system definition is scheduled to begin in February 1971 and last through early FY-1972. The following comments and description refer to the system design resulting from the Phase I definition effort as recommended by the EOI program office.

The system is configured to return imagery via relay satellite to a ground station. Some of this imagery is to be available for viewing within of acquisition. The imaging satellite near-polar orbits are to be elliptical with a perigee altitude of 188 NM and an apogee altitude, yet to be selected, of 283 to 424 NM. The ground sampled distance (GSD) varies with altitude, with the best value being The nadir frame size varies similarly with the smallest frame, about 2 NM on a side, corresponding to the

imaging satellite system can obtain per day total with some stereo coverage. Imaging satellite design life is with an expected useful life of Availability is presently planned to be April-June 1975.

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Cycle Times:

Tasking Decision Through Target Acquisition	<1 hr to one day
Data Acquisition Through Imagery Viewing	
Operational Lifetime	
Representative Orbit	188 X 283 to 424 NM elliptical
Ground Sampled Distance (Best)	
Frame Size (Minimum)	2 X 2 NM
Capacity: Per day	(some stereo)
Earliest Availability	April 1975