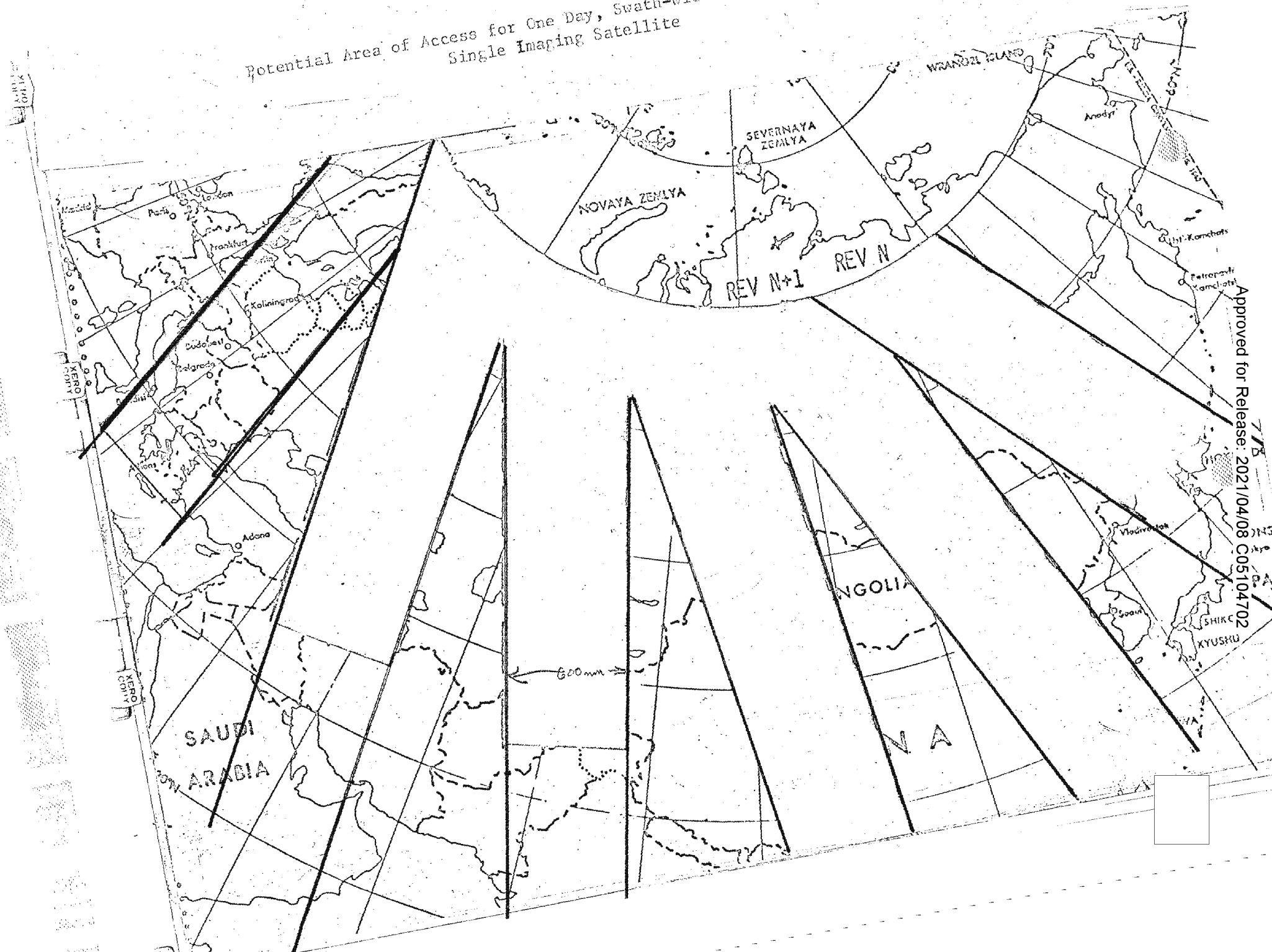
Potential Area of Access for One Day, Swath-width of 600 nm
Single Imaging Satellite



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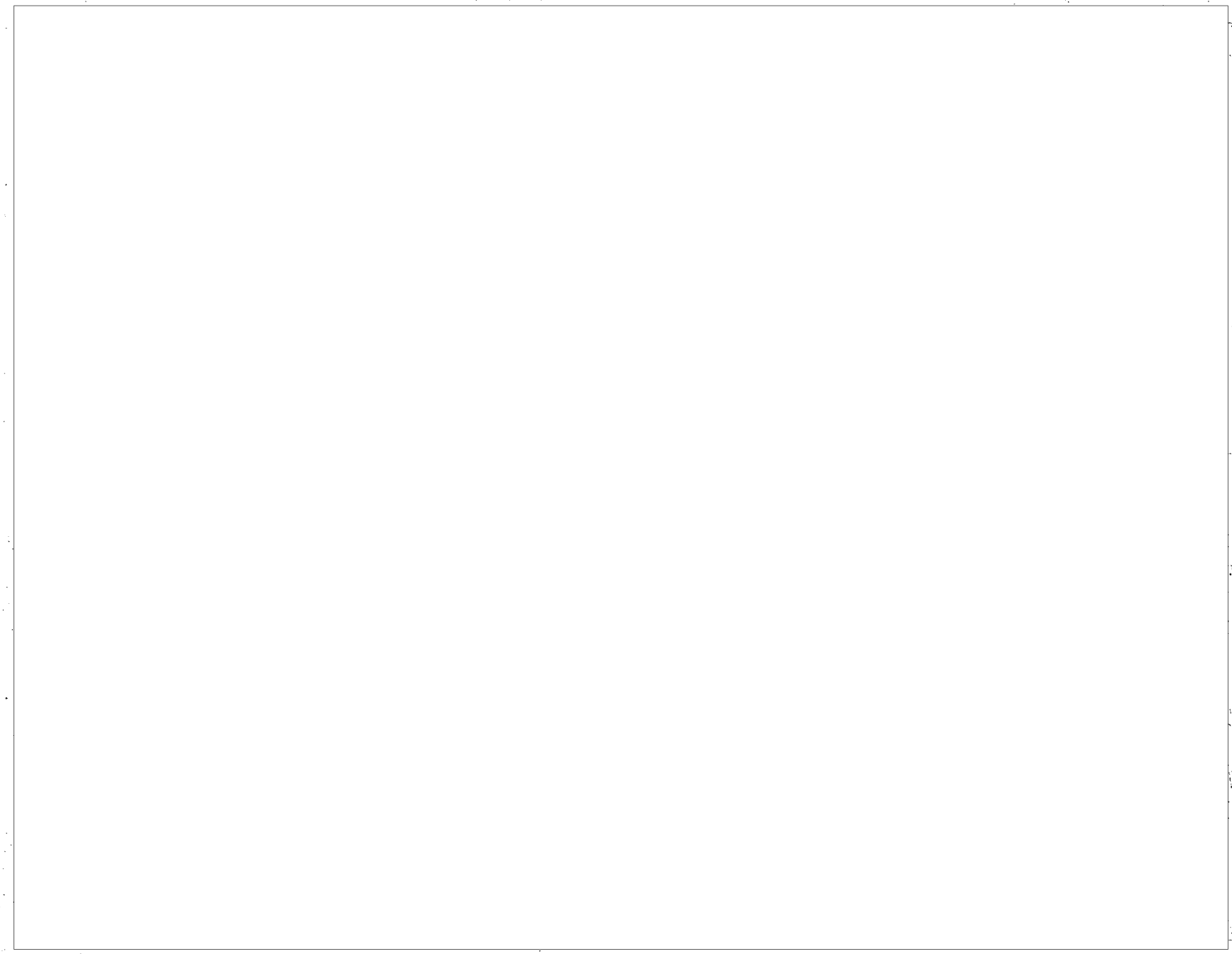
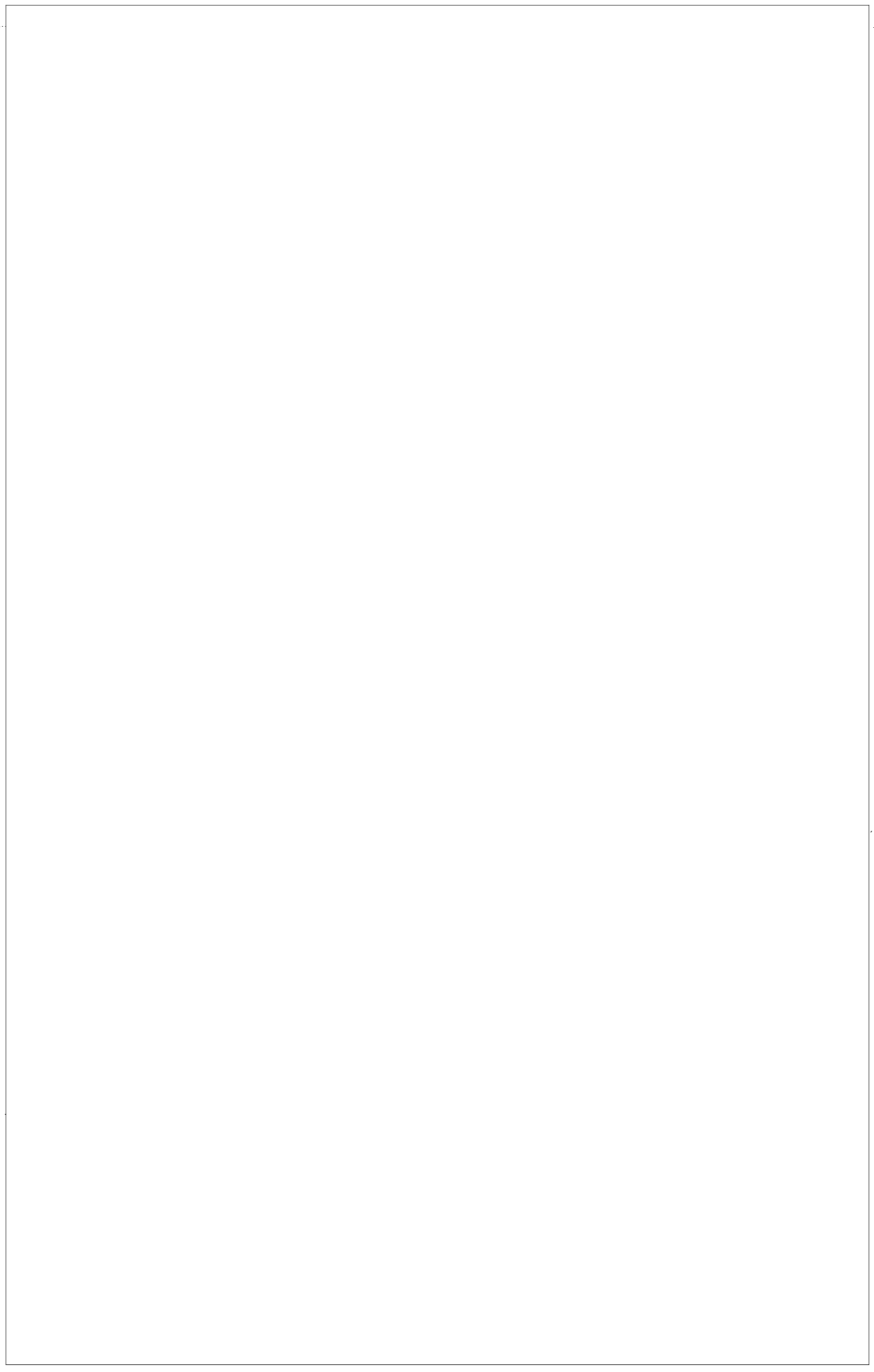


Approved for Release: 2021/04/08 C05104702



4. Performance of Electronic Readout Systems Against Warning/Indications Requirements. Three cases have been examined in detail to determine the feasibility of satisfying warning/indications requirements. In all cases the method of forwarding imagery does not affect the quantity of coverage obtained; only timeliness of receipt of information is affected. Cases examined are as follows:

a. Case 1--One very high resolution system flown at 480 nm altitude providing an access swath of approximately 1000 nm.

b. Case 2--Two medium resolution systems flown at 256 nm altitude providing a combined access swath of approximately 1000 nm.

c. Case 3--Three medium resolution systems flown at 169 nm altitude providing a combined swath of approximately 1000 miles.

For all three cases, a 5-10 nm photographic swath was assumed. The capability for each case without considering degradation caused by weather is shown in Table 1. Table 2 shows the effect of weather degradation on the capability of each case to meet the daily requirements established for each target category. The latter data indicate the desirability of using at least two long-life satellites to achieve multiple coverage to aid in overcoming adverse weather.

5. Performance of Cases 2 and 3 Against World-Wide COMIREX Targets. The chart titled "Cumulative Programming of World-Wide COMIREX Targets" shows the percentage of current targets (about 6000 total) that could be programmed on a nonduplicative basis daily and up to ten days by Cases 2 and 3 over and above programming warning/indications targets.

TABLE 1

Target Category (See Tab E)	Daily Target Requirement	Coverage Programmed Daily (nonduplicative) Case 1	Case 2	Case 3	Number of Days Required to Program all Targets in Category Case 1	Case 2	Case 3

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Attachment 1

Costs

System	5 Yrs	10 Yrs	Coverage (% of W/I Deck)	Maximum Data Return Time (Hrs)
			50% every 3 days	
			50% every 3 days	
			* 100% every 3 days	
			* 100% every 3 days	
			100% every 3 days	
			* 100% every 3 days	
			* 50% every day	
			* 100% every day	
			* 100% every day	
			100% every day	
			* 100% every day	

1/ In millions, cumulative from program go-ahead, system is generally fully operational at 5th year

2/ Operational in two to three years

3/ 1 hour data return to

4/ 4 hours data return to

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HANDLE VIA BYEMAN CONTROL SYSTEM

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505 EARLY WARNING/INDICATOR DECK SUMMARY

Category	Description	Number of Targets	Daily Coverage Required

Atch #2

*Stereo required with 35 Degree Obliquity Limit

TABLE 3

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[redacted]

Atch #4

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HANDLE VIA BYEMAN CONTROL SYSTEM

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SYSTEM I COVERAGE COMPARISON

Category Number	Daily Requirement	Average Number of Different Indicator Targets Programmed	Average Number of Cloud Free Photographs

(Values in parentheses are number of targets programmed in January with positive sun angles.)

TABLE 6

OFFICE OF THE DD/I

DATE: 13 Dec 68

TO: Jack

FROM: Ed

SUBJECT: More on Real-time Satellite

REMARKS:

You asked me for more detailed information on capabilities of the system, especially with respect to weather and access.

The attached map shows the potential areas of the communist countries which would be available for coverage from a single satellite. In effect this shows the number of swaths of 600 n.m. width within which a limited number of targets could be acquired. On each successive day the actual swath paths would shift a few degrees. One of the plans calls such satellites to be up at all times; in this case, all targets would be within a swath at least once a day.