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ZAMAN

BYE 3043-70  
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EOI EXPLOITATION CONCEPTS

1. The timeliness and persistence of the EOI system will enable the National Photographic Interpretation Center to arrange photointerpretation work along lines which will be more compatible to the flow of intelligence from other sources and will involve a smoother level of photointerpretation effort over time.

2. We know that we could receive as many as  of imagery from  making one pass around the earth. We also know, however, that returns per revolution usually will at most be about 50 readable scenes -- after accounting for stereo coverage and after subtracting cloud covered frames -- and that the most frames we could receive in one day will be

3. We know that the timely characteristics of the system will give us the opportunity to do current exploitation for purposes which are time-sensitive:

- Current intelligence which could be of immediate use -- in other words, intelligence upon which some timely consideration of an action could be based.

- Detection of activity which suggests that the current targeting regime of the collection system should be changed to gain early additional information related

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to that activity -- in other words, "feed-back" to the control of the collection system. This could serve the purpose of gaining further coverage of a current intelligence matter, or might simply serve to take advantage of an opportunity to observe activities of less urgent interest but valuable for detailed intelligence research.

- Detection of activity which suggests that other intelligence collection systems and sources should be brought into play -- in other words, for "tip-off" to those other systems and sources which provide their own unique input of intelligence on a dynamic activity such as ground force movements or an event such as a nuclear test.

4. We know that the persistence of coverage that the system can provide will strengthen our capabilities for exploitation which serves detailed intelligence research of the kind that is not time sensitive. We shall, for example, gain frequent looks, during short spans of time, at the components and units of particular forces -- such as a ground or missile or submarine force -- valuable for measuring force levels, training, equipment, readiness and other measures of capability.

5. In short, our considered arrangements of manpower and equipment for exploiting EOI returns should match the responsiveness of the system to both current and research intelligence purposes. We have learned to cope

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well with the detailed exploitation done for research intelligence purposes. We foresee no major changes in the organizational arrangement of photointerpreters to continue those detailed exploitation services.

6. For exploiting the responsiveness of the system to current intelligence purposes, NPIC has examined several possible arrangements and determined two to be the most promising. Each is responsive in a different degree to the timely characteristics of the system. Each includes two essential current exploitation functions: first, an initial scan for time-sensitive purposes, and second, a more detailed readout of all targets in search of activity of current intelligence import and for updating the data base.

7. The development and maintenance of a current data base will be a critical element in our EOI current exploitation. This data base will provide an immediately accessible and complete record of the normality patterns of activity -- as derived from imagery -- which current imagery can be matched against to detect abnormalities. During the transitional  of EOI operations, construction of this data base will require a special effort by NPIC, including the photointerpreters described in the following exploitation arrangements.

Concept I

8. The first arrangement considered would call for continuous initial scan by three eight-hour shifts of photointerpreters, backed

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up by selected PI teams working the normal eight-hour day, seven days a week. We are estimating that the shift PI's should have an average time of  to accomplish the following with each frame of photography:

- Determine if the target object or area is visible.

If not, because of cloud cover or other reasons, report back to system control.

- Scan the image and compare what he sees with the previous coverage data base and with any special current, tip-off, and indications intelligence requirements.

9. Those images which did not contain intelligence relevant to pre-determined special requirements would be passed on to selected teams of photointerpreters to be analyzed by them during a normal day schedule. These selected teams would be located in and would be parts of the regular PI exploitation divisions.

10. In Concept I, then, we are considering devoting to the current exploitation function additional manpower at two points -- the three eight-hour shifts, and the selected teams within the regular PI divisions.

11. The strength of each of the eight-hour shifts will vary because the maximum receipt of imagery of the Asian and European (USSR) land mass will be between 1700 and 0700 while imagery of Western Europe and the Western Hemisphere will be received between 0800 and 1600.

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12. Totaling the estimated needs for the three eight-hour shifts plus the selected back-up teams, NPIC estimates that about 50 photo-interpreters would be required to man these functions under Concept I. This estimate includes factors for operating three shifts, 24 hours a day, seven days a week, as well as factors for leave and sickness.

Concept II

13. In this arrangement, both parts of the current exploitation photointerpretation work would be accomplished by three groups of PI's, each group working one of three eight-hour shifts. In other words, the kinds of select teams described in Concept I as working a normal day schedule would work along with the shift PI's, and all the current exploitation and reporting tasks would be accomplished within the eight-hour shifts.

14. NPIC estimates that this arrangement would require a total of about 70 PI's to man the three shifts, 24 hours a day, seven days a week.

15. The manpower estimates for both these concepts are based on the net addition of EOI current exploitation functions to the KH-8 and KH-9 exploitation functions for which NPIC will be responsible. It has been suggested that the EOI system has a potential for gaining imagery at least equal to that of the KH-8. If the KH-8 were phased out, some photo-interpreters could be shifted to EOI current exploitation work.

*reduction in KH-8 & KH-9  
1st & 2nd phase reqts*