

1 MARCH 1968

SUBJ: HISTORY OF 89.60 PPS signal intercept by POPPY.

- 1. First seen on 19 December simultaineously with FACADE, data received by the POPPY site and sent back to NSA via courier. NO ELECTRICAL REPORT MADE BY SITE.

 FACADE did, upon dumping of the data, proceede on an analysis of the signal.
- 2. The second observation of the signal was on the 22nd of December. A five minute simultaneous observation was made, with the data being taken by They filed their 051510Z Jan.after analysis and then again on 21 Feb they up-graded their analysis of the signal following arother (third) observation of this signal.
- 3. This third observation of the signal was on the 2nd February and again Todendorf had another 5 minute observation of high quality data, resulting in an initial electrical message of disclosure and then their 211639Z February disclosure of the location and pulse characteristics. The location was of the greatest interest by the community since the best efforts of NSA had been handicapped by both (1) the use of only analog tape in previous observations and (2) inadequate time to analysze the tape made in Germany on 2 Feb, and this caused their locations to be off in the desert some 50 to 70 miles from where the community had reason to believe the signal was emanating.
- 4. The major conclusions to the information on the Message of 21 Feb

 - B. Location was delayed by late arrival of Ephemeral information and then the analysis took only 2 days.
 - C. Location analysis was far closer to the suspected target than anything that the community had come up with up to that time. by site
 - D. Fix/was made about 10 days before NSA made their Fix and then NSA differed only the Sites location, but NSA had a confidence area measureing

| 5. | Therefore one would conclude that the small general purpose computer |
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| | with its operator selected |
| | data, arrived at a best location by an itterative error reduction |
| | process in the record time of less than a few days after the ephemeral |
| | information became available. The key factor here is the timeliness |
| | of the after the ephereral information)within 2 days |
| | after observation would have been possibbe. |



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