

ROUTE SHEET
NC-NRL-10-863c (Rev. 5-54)

~~TOP SECRET~~

CODE	DATE	INITIALS	*PUR-POSE	REMARKS
5430	10/10	hof		
5400	10/9/63	MS		Please Request the missing items covered in this Memo Hof
5100	10/11	lee		Request this info be furnished
5160	10/15	DE	3	Code 5400. MS
5100	10/15	lee		
5400	10/15/63	MS		See attached reply ltr
5430				OCT 16 1963 5432 5435A

INSTRUCTIONS

Prepare 2 copies of this route sheet and forward ALL copies together with necessary correspondence and other documents.

*PURPOSES

- 1. FOR INFORMATION
- 2. FOR APPROVAL
- 3. PREPARE REPLY
- 4. FOR SIGNATURE
- 5. FOR NECESSARY ACTION
- 6. FOR MEMO. COMMENT
- 7. FOR GUIDANCE
- 8. FOR COMPLIANCE
- 9. DISTRIBUTE ENCLOSURE
- 10. RETAIN ENCLOSURES
- 11. RETAIN COPY
- 12. FILE

NAVY-DPPO PRNC, WASH., D.C.

FROM Countermeasures Branch		DIVISIONS DO NOT FILL IN	
DATE OF MATERIAL 10-8-63	BRANCH IDENT. SYMBOL 5430-298;RDM:jks		
ORIG. IDENT. SYMBOL (Mail Room Fill in) 5160-53;CAB:udw		DATE MAILED	
		FILE NO.	

SUBJECT
"Proposed Localizer Satellite System"

~~TOP SECRET~~

R/S NO. (Mail Rm. Fill in)

OPTIONAL FORM NO. 10
5010-104

UNITED STATES GOVERNMENT

Memorandum

~~SECRET~~

TO : Code 5160

5160-53:CAB:wdw

DATE: 15 October 1963

~~TDP SECRET~~



FROM : Code 5162

SUBJECT: "Proposed Localizer Satellite System"

Ref: (a) Memo 5430-298:RDM:jks of 8 Oct. 1963

1. Reference (a) requested the methods to be used in the subject system to (1) identify the main antenna beam when working with pulsed signals (2) convert the sum and difference signals to telemetric data when working with pulsed signals.
2. The basic technique of the proposed electronics system requires the sum, difference and reference signal outputs be a d.c. voltage proportional to the input signal. For the case of pulsed signals, a boxcar generator and a.g.c. filter appear to provide the desired results in terms of output signal characteristics and dynamic range.
3. The sum signal is compared to the reference signal to determine the main lobe. The reference signal is obtained from a low gain reference antenna. This antenna is designed such that its output is greater than the sum output except in the main lobe. The difference channel is gated with this comparison circuit to the telemetry system.
4. There is no anticipated compromise to null resolution provided the PRF is large compared to the scan time of the system. The subject proposal assumed a PRF of 400 cps and a scan time of 0.1 seconds. For this case, at least 40 pulses exist with an equivalent space angle between pulses of approximately 0.1° .
5. The investigators should feel free to call the undersigned should further questions arise.



Space Surveillance Branch

HANDLE VIA
BYEMAN / *Talent Keyhole*
CONTROL SYSTEM ONLY *jointly*

Copy 1 of 3 copies

~~TDP SECRET~~



~~SECRET~~