

ROUTE SHEET

PRNC-NRL-10-863c (Rev. 5-54)

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CODE	DATE	INITIALS	PURPOSE	REMARKS
5435	11/5	CSO		
5430	11/5	Wof		
5400	11/5/58	WAS	NOV 5 1958	5404 PIR 1/5
1570	11/7	AD		
1525	11/7	A		
1523A	11/10	GN		
5430A	11/12	AS	mailed Return # 3 NOV 12 1958	
5000	11/13/58	9.05	Show green.	
4000			Show green.	
4010	11/18	Jm	Show green.	NOV 17 1958
1020	11/19	R	Show green.	
1040	11-74	A		
1523A				
2027	12/3	UP17		
1071	12/3	EN		
1072	12/8	630		
1523A				
				Classified by: AIR NRL
				Review on: 10 NOV 1988

INSTRUCTIONS

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

PURPOSES

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

FROM Director, U.S. NRL, to Chief, BuAer (Aer-AV-42)		DIVISIONS DO NOT FILL IN	
DATE OF MATERIAL	BRANCH IDENT. SYMBOL 5430-180:RBO:as		
ORIG. IDENT. SYMBOL (Mail Room)	00757	DATE MAILED 10 NOV 1958	FILE NO. R06-29
SUBJECT Intercept System, Lightweight, Subminiaturized, for Supersonic Vehicles; BuAer Project No. AV-42004, NRL Problem 54R06-29; quarterly progress report on; forwarding of			
SECRET		HANDLE VIA BYEMAN CONTROL SYSTEM	

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5430-180:RBO:as

SER: 00757

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10 NOV 1958

From: Director, U. S. Naval Research Laboratory
To: Chief, Bureau of Aeronautics (Aer-AV-42)

Subj: Intercept System, Lightweight, Subminiaturized, for Supersonic Vehicles; BuAer Project No. AV-42004, NRL Problem 54RO6-29; quarterly progress report on; forwarding of

Ref: (a) BuAer Conf ltr Aer-AV-4212 Ser 02982 of 5 March 1958

Encl: (1) 4 copies of subject report 5430-180A:RBO:as of 31 October 1958

1. In accordance with reference (a), enclosure (1) is forwarded herewith.

2. This is an interim report; work is continuing on the problem.

L. A. GEBHARD
By direction

Copy 1 - BuAer (Aer-AV-42) with copies 1 thru 4 of encl (1)

Copy to:

Copy 2 - BuAer (Aer-TD-42) (w/8 copies of encl) - copies 5 thru 12

Copy 3 - Code 5430 Problem File with copy 13 of encl

Copy 4 - Code 5430 Correspondence File with copy 16 of encl

Copy 5 - Code 1523A (Green) with copy 14 of encl

Copy 6 - Code 1523A (Pink) with copy 15 of encl

Copy 5 of 6 Copies

Downgrade to confidential when enclosure is removed.

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~~SECRET~~5430-180A:RBO:as
31 October 1958

Subject: Quarterly Progress Report on Intercept System, Lightweight,
Subminiaturized, for Supersonic Vehicles

1. Work has progressed on many phases of the development of an unattended intercept system suitable for operation in supersonic vehicles and designed to receive, amplify and re-transmit (on another frequency) radar signals in S band.
2. A brief outline of the work during the quarter from 1 July to 30 September follows.
 - a. Intercept antennas based on NRL specifications have been ordered, received and their characteristics measured. Each antenna weighs about one-half ounce; six will be required for satisfactory coverage. An antenna of somewhat different form has been designed and made at NRL for comparison with those purchased.
 - b. Theoretical design of bandpass filters to limit the reception of the intercept receiver to the frequency band 2600 to 3250 Mc has been completed.
 - c. Specifications are being prepared for procuring a transistorized video receiver for the intercept system.
 - d. The power requirement for all devices to be included in the intercept equipment package has been estimated and a contract has been initiated for a long-life power supply.
 - e. Development of the command receiver, the data-link transmitter and the container for the intercept equipment are being undertaken by cooperating divisions at NRL that have specialized experience along these lines.
 - f. Initial steps have been taken to provide equipment for the ground stations: a transmitter to be suitably located for interrogating the intercept system through its command receiver (to start the data-link transmitter); receivers and recorders and timers for collecting the intercept data.
 - g. Shelters for housing the ground stations have been investigated and two shelters have been borrowed from the Army for preliminary work.

Encl (1) to
NRL ltr 5430-180:RBO:as

SER:

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Classified by: Dir. NRL
Review on: 10 Nov 1958

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