

~~SECRET~~  
SPECIAL HANDLING

H-1169

22 January 1965

U. S. Air Force  
Space Systems Division -   
Los Angeles, California

Re: Message,  19 January

Clarification of Mode A lock-on and flyback indication is as follows for PUNDIT 4:

A 50 millisecond burst of 50 kc square wave is inserted during flyback following recognition, or 50 millisecond of 100 kc square wave during flyback if no recognition occurred during that sweep. 7309

The mentioned 25 kc square wave on recognition is not included in PUNDIT 4 and has been considered only for PUNDIT 5. 50X1

Clarification of tape recorder back-up operation for PUNDIT 4 based on discussion with  on 21 January 1965:

The attached sketch shows the two possible systems with back-up capability. Back-up is provided for either recorder by closing the four switches which effectively parallels the inputs and outputs (actual circuitry is somewhat more complex but accomplishes same effect). System 1 provides initial operation as originally intended, and is therefore recommended by  and myself. System 2 penalizes the initial wide-band operation by limiting wide-band recording time to 6 minutes rather than a more desirable 12 minutes. 25X1

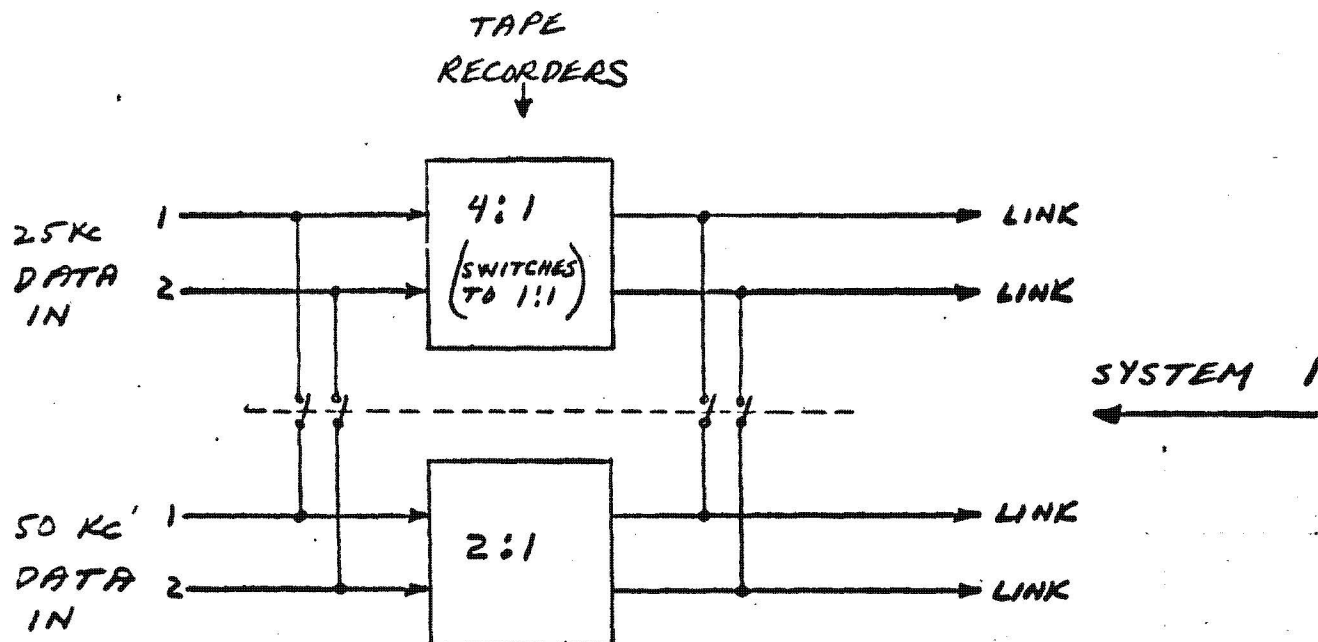
Sincerely,

This Document Consists of 1 Pages.

Copy No. 1 of 2 Copies, Series EDL

~~SECRET~~  
SPECIAL HANDLING

SAFSSH 0051-65

NOTE:

SYSTEM 2 REPLACES THE 2:1 RECORDER  
WITH A 1:1 RECORDER WHICH COULD  
BE SWITCHED TO 4:1

4:1 = 24 MINUTES @ 25Kc

2:1 = 12 MINUTES @ 50Kc

1:1 = 6 MINUTES @ 100Kc

FIGURE 1: RECORDER BACK-UP SYSTEMS

1/21/68

BT / 102247Z ZEA ZPO MADAM

965 FEB 10 22 53

XXXXX ZEA

EIGHT FIVE THREE WORTH THREE NINE THREE [ ] Z [ ] THREE MADAM

TOP SECRET/102015Z

PRIORITY WORTH/INFO [ ] WHIG WAHOO MADAM/CITE MARGO 1153-5

REINDEER X

A. 7309

B. REQUEST ALL VEHICLE ADDRESS AND EXECUTE TONE FREQUENCIES BE FORWARDED MARGO ASAP.

TOP SECRET/

BT

50X1

7309

Copy 1 of 3 Pages  
Page 1 of 3 Pages  
Control No. \_\_\_\_\_

**TOP SECRET**

Handle via BYEMAN  
Control System

DISTRIBUTION	
REF ID	STATUS
SS-1	
SS-2	
SS-3	
SS-4	
SS-5	
SS-6	
SS-7	
SS-8	
SS-9	
SS-10	
SS-11	
RF-1	
RF-2	
FILE	

15

1965 FEB 11 23 22

**Handle via EYEMAN  
Control System**

**SAF39**

0211

50X1

7309

**Handle via BYEMAN  
Control System**

Copy-- of Copies  
Page of Pages.  
Control No.

2. COMMAND SEQUENCE B		Control System	FUNCTION
COMMAND	FREQ. (KHz)		
Z 3	5.7		T/R ONLY SELECT COMMAND SEQUENCE L. INITIATE DECK #1 OF P/L TIMER.
Z 7 PLUS 58			SELECT PAYLOAD MODE C. TAPE RECORDER ON
Z 7 PLUS 68 (BEFORE SPC-11)			TAPE RECORDERS NORMAL POSITION
Z 7 PLUS 68 (AFTER SPC-11)			TAPE RECORDER TRANSFER. INPUT AND OUTPUT: 4:1 TO 1:1 TRANSFER
COMMANDS INDEPENDENT OF COMMAND SEQUENCES A AND B			
Z 2	6.0		MAIN RESET T/M OFF TAPE RECORDERS STOP
H (Z 8)	2.7		MODE A-TRANSPOND ON. TAPE RECORDER #1 READIN ON. COMMAND RECEIVER OFF
J (Z9)	3.0		MODE B-ON. TAPE RECORDER #1 ON. TAPE RECORDER #2 ENABLE TO R/I UPON RECOGNITION. COMMAND RECEIVER "OFF"
K (Z10)	3.3		MODE B-ON. TAPE RECORDERS #1 AND #2 ON. COMMAND RECEIVER OFF
L (Z11)	3.6		MODE C-ON. TAPE RECORDER #1 ON. COMMAND RECEIVER OFF

3. THE COMMAND SYSTEM FOR MISSION 7309, VEHICLE 4401, UTILIZES TWO MATRICES, OR COMMAND SEQUENCES TO ACHIEVE THE NECESSARY COMMAND CAPABILITY. THIS SUMMARY INCLUDES ONLY THOSE COMMANDS WHICH AFFECT P/L OPERATION. A DETAILED DESCRIPTION OF ALL COMMANDS WILL BE FURNISHED WITH THE VEHICLE OPERATIONS PLAN AS SOON AS IT IS RELEASED.

TOP SECRET  
CFN 3900 WILL RERUN UPON REQ  
BT

NN

N

N

~~TOP SECRET~~

Trans via BYEMAN  
Control System

Copy \_\_\_\_\_ of \_\_\_\_\_ Copies  
Page \_\_\_\_\_ of \_\_\_\_\_ Pages.  
Control No. \_\_\_\_\_



~~TOP SECRET~~  
Handle via BYEMAN  
Control System

6943

/221717Z ZEA  
BT  
XXXXX ZEA  
SEVEN FOUR ONE WORTH

7309

TOP SECRET 221714Z  
PRIORITY WORTH CITE WHIG 2331  
EARPOP  
REF WORTH 6847

SITE SURVEY TO DATE INDICATES BEST MISSION 7309 MODE  
A TRANSMITTING FREQUENCIES IN BANDS 137.5 TO 139 MC OR 130  
TO 133.2 MC. DUE TO PROCUREMENT PROBLEMS, SUGGEST ORDER  
SEVERAL SETS OF CRYSTALS ACROSS BOTH BANDS AND BEST PAIR  
WILL BE SELECTED PRIOR TO SYSTEMS TEST BASED ON LATEST  
GROUND INTERFERENCE DATA. PLEASE ADVISE LATEST POSSIBLE  
DATE FOR FINAL XTAL SELECTION.

TOP SECRET  
CFN: 2331 6847 7309 137.5 139 130 133.2  
BT

NN

N

N

DEPARTMENT		
NAME I T		
SS-1		
SS-2		
SS-3		
SS-4		
SS-5		
SS-6		
SS-7		
SS-8		
SS-9		
SS-10		
SS-11		
SS-12		
SS-13		
SS-14		
SS-15		
SS-16		
SS-17		
SS-18		
SS-19		
SS-20		

6943

7038

/26103Z ZEA  
BT  
XXX X ZEA  
SEVE SEV N NE WORTH

7309

**S E C R E T 26100Z**  
WORTH INFO WAMOO CITE WHIG 2356  
AS PER PHONE CONV 25 JAN REF MISSION 7309, AGREE  
TO ADD COMMAND AND RECORDER SWITCH FOR REDUNDANT CAPABILITY  
AS FOLLOWS: IF MODE B RECORDER (50 KC, 12 MINUTES  
READING FAILS OR IT IS OTHERWISE OPERATIONALLY  
DESIRABLE, SWITCH THE MODE C RECORDER (25 KC, 24 MIN READING  
TO MODE B AND CHANGE ITS SPEED FOR 100 KC, 6 MIN READING. IF  
MODE C RECORDER FAILS, MODE B RECORDER COULD BE CONNECTED  
TO MODE C AS NECESSARY WITH NO READING SPEED CHANGE. ALL  
READOUTS AT 100 KC, 6 MIN. NO COMMANDS PREVIOUSLY SPECIFIED  
WILL BE DELETED.

**S E C R E T**  
CFN: 2356 25 JAN 7309 B 50 KC 12 C 25 KC 24 B 100 KC 6 C  
B C 100 KC 6 MIN  
BT

N

N

N

7038

DISTRIBUTION		
SAFSS	A	I
SS-1		
SS-2		
SS-3		
SS-4		
SS-5		
SS-6	1	
SS-7		
SS-8		
SS-9		
SS-10		
SS-11		
RF-1		2
RF-2		3
FILE		

~~SECRET~~

Handle via BYEMAN  
Control System

Copy 1 of 3  
Page 1 of 3  
Control No. \_\_\_\_\_