#### RADAR PREFLIGHT CHECKLIST

FLIGHT # 19770920HI. RADAR Day 263 A.C. # <u>N42RF</u> OPERATOR John Stewart / Barry Fennell Traince Jack Thomas NUMBER OF DIGITAL MAGNETIC TAPES ONBOARD

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NUMBER OF VIDEO TAPES ONBOARD

COMPONENT SYSTEMS UP AND CHECKED.

RDSC		VTR
COMPUTER	-	DSC1
DMTR1		DSC2
DMTR2		SCOPES V
	NO V	
	LF V	-
	TA	-

## RADAR POSTFLIGHT SUMMARY

NUMBER OF DIGITAL TAPES USED	DMTR 1 _ DMTR 2 _	3 2
NUMBER OF VIDEO TAPES USED	3	
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SIGNIFICANT RECORDER DOWN TIME (other than for tape changes).

DMTR:

LF	6	MIN
NO	6	min
TA	6	min

OTHER PROBLEMS: (stabilization, interference, etc.)

## DIGITAL RADAR LOG

FLIGHT 770920H A.C. # N42RF OPERATOR #1 John Stewart #2 Jack Thomas RADAR TECH Barry Fennell RADAR ENG 3:34 RADAR SYSTEM TIME UP  $\mathbf{LF}$ (recording) 3:34 NO

3:34

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TA ,

LF

NO

TA

tape# V1	TIME ON 2021	TIME OFF 2123	SOURCE RADARS NO LF TA	REWOUND?
V2	2125	2227	NO LE TA	NO
V 3.	2230	2332	NO LE TA	NO
D1-1	2021	2125	NO LF	NO
01-2	2129	2249	NOLF	NO
D1-3	2253	2355	NO LF	NO
D2-1	2021	2155	TA	NO
D2-2	2158	2332	TA :	NO

RADAR SYSTEM TIME DOWN

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1 TIME ON TIME OFF REWOUND? TAPE# SOURCE RADARS •. Tes : • 1 -

## RADAR DOWN-TIME LOG

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ITEM:	TIME DOWN	TIME UP	PROBLEM
COMP	2027	2030	
COMP	2225	2227	
COMP	2234	2235	
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		rdsc, lf, NO, TA, DSC جُ	0617

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## RADAR OPERATOR PROCEDURE

 Insure Data system up and running before take-off. Report any malfunctions to lead Project Scientist.

It is the RFC tech's responsibility to power-up and initialize all component parts of the RDS. It is the NHEML operator's responsibility to monitor the system during flight, log any failure, and report malfunction(s) to RFC tech for repair.

It is the NHEML operator's responsibility to insure near continuous recording on the 2 DMTR units, and VTR. This is done by maintaining a schedule of projected tape change times and performing these changes in anticipation of any penetrations/turbulence. (Fast-forward of short amounts of tape on the end of the current reel if necessary.) These duties are normally shared by NHEML operator and RFC tech to ease the load.

- 2. Note number of DMTR tapes and VTR tapes on boarding. Report to lead Project Scientist any shortage. For maximum indurence mission a minimum of 15 digital tapes and 10 analog tapes are required. For deployment insure at least 45 to 50 digital tapes and 30 VTR tapes have been brought (could be transported by C-130).
- Note any failure of any component part to lead Project Scientist before take off.

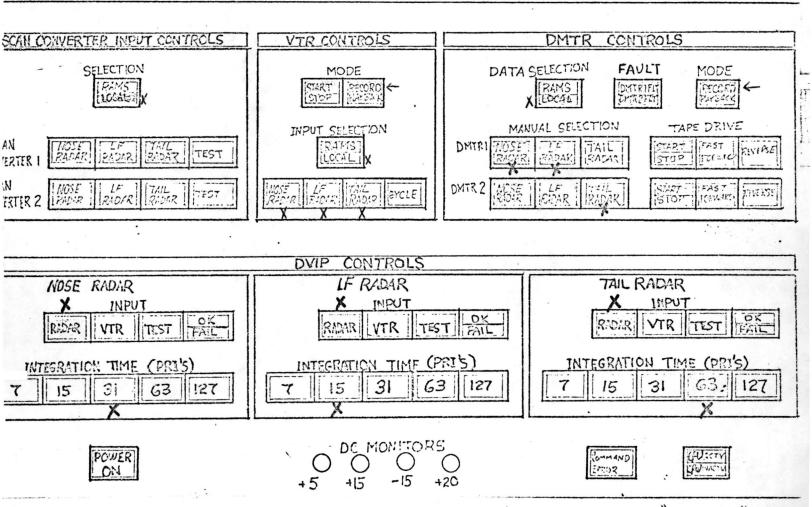
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4. Insure the correct switch settings on RDSC. Radar tech will probably set up the RDSC, but check it anyway soon after take-off. <u>AS WELL AS</u> <u>AFTER ANY SYTEM RESTART</u>.

Switch settings should be:

# RADAR DATA SYSTEM CONTROL PANEL



Ha. To initiate recording on VTR, DMTR1, and DMTR2, push "RECORD" button under the "MODE" label: on the appropriate device, then press "START." If tape runs out mounting a new reel will cause the system to begin recording again without having to reset this control unit.

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5. After take-off, work with RFC tech to insure proper function of RDS: This is done by recording a little radar data on the DMTR's and VTR, then play it back through the system. (If storm is close this step may not be possible.)

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 Activate recording system approximately 200 n.mi from storm center or sooner if strong echoes or bands of echoes appear.

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- 7. Maintain tape log and a list of times of anticipated tape changes.
- Schedule tape changes to avoid as little data loss as possible. <u>Do</u> Not Rewind Tapes.

For DMTRS: Turn power off momentarily, Push "LOAD". This will fast forward tape off the end of the reel.

For VTR: Push "FAST FORWARD". Push "STOP" on RDSC.

- Log time of all tape changes and lable tapes with appropriately annotated lables.
- 10. Maintain log of all data outages due to machine malfunction.
- 11. Normally NOSE and LF radars are recorded on DMTR 1, and TAIL on DMTR2. Approximate tape consumption times are: DMTR 1 - 60 minutes, DMTR 2 -  $\cdot$  90 minutes. VTR tape consumption time is  $\sim$  62 minutes.
- 12. Monitor digital radar display as much as possible. This would normally give you the first indication of system malfunctions(i.e. the screen stops updating.)

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13. On landing, give preflight and postflight checklists as well as radar downtime log to the lead Project Scientist.

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