

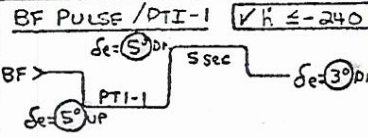
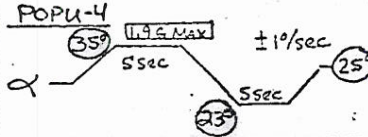
# STS-2 ENTRY MANEUVERS

7/20/81

(REFLECTS DECISIONS OF ENTRY FLIGHT TECHNIQUES 7/15/81)

FLIGHT CONDITIONS	% RCS EA SIDE	FCS CONFIG	MANEUVER
X $\bar{q} = 0.3$	33	P/R/Y-CSS BF-MAN	PITCH ASI $\pm 0.75\%/sec$
X $\bar{q} = 3.0$	33	P/R/Y-CSS BF-AUTO	PITCH ASI $\pm 0.75\%/sec$
X $\bar{q} = 4, 8$	34, 32		ROLL STEP $2\%/sec$ THEN REL
X $\bar{q} = 10$	32		PITCH ASI $\pm 0.75\%/sec$
FIRST $\emptyset$ CMD			ROLL AT $3\%/sec$
X $\bar{q} = 16$	31		PITCH ASI $\pm 0.75\%/sec$
X $\bar{q} = 18$	31		ROLL ASI $2\%/sec$ THEN REL
X $\bar{q} = 22$	30	R/Y-CSS RESELECT PTI-1	PTI-1
V=21,500 * For off nom * DECS perform * MNR at $\Delta A_z$ * NLT/4°	28 26 w/o PTI	✓PTI-1 R/Y-CSS BF-MAN	BF PULSE/PTI-1  PTI-1 PITCH ASI $\pm 0.75\%/sec$ POPU-1 $\pm 0.75\%/sec$
FIRST $\emptyset$ REV AT $V \approx 19,300$			
V=17,600 ( $\Delta A_z$ REQ=6°)	24 23 w/o PTI	P/R/Y-CSS BF-MAN  P-AUTO  RESELECT PTI-1	POPU-2 $\pm 1\%/sec$ PTI-1 BF PULSE BF MAX $\downarrow 82\%$
V=14,000 ( $\Delta A_z$ REQ=13°)	24 20 w/o PTI	✓PTI-1 R/Y-CSS BF-MAN  RESELECT PTI-1	BF PULSE/PTI-1 $\checkmark$ $h_a = 180$ POPU-3 $\pm 1\%/sec$

STS-2 ENTRY MANEUVERS 7/20/81

FLIGHT CONDITIONS	% RCS EASIDE	FCS CONFIG	MANEUVER
SECOND $\phi$ REV AT $V=10,200$ (FORCE AT 10,000)			
CHECK TACAN DATA (NO COMM RESID < TBD)			
$V=8400$ ( $\Delta A_E \text{ REQ} = 15^\circ$ )	21  16 w/o PTI	✓ PTI-1 R/Y-CSS BF-MAN	BF PULSE / PTI-1 ✓ $H \leq -240$  
$V=5800$	12	R/Y-CSS	PTI-2
$h=120K$ $V=5000$	L1	RAD CNTLR LOOP (two) - AUTO B WAIT 30 sec RAD BYP VLV MODE (two) - MAN MAN SEL (two) - RAD FLOW (tb-RAD)	
THIRD $\phi$ REV AT $V=5000-4000$			
$M=4.5-4.0$	8	R/Y-CSS SB-MATCH/MAN	PTI-3
$M=3.3$	AIR DATA PROBES (two) - deploy - ✓ SPEC 51 ✓ RUD & AIL TRIM		
$M=3.2$	4	R/Y-CSS SB MATCH/MAN	PTI-4
FOURTH $\phi$ REV AT $M \approx 2.8$			
$h=85K$	L1-FLASH EVAP CNTLR PRI A-OFF		
$M=2.2$	3	R/Y-CSS	PTI-5
$M=1.6$	2		PTI-6
$M=1.1$	2		PTI-7
$M=0.9$	-	R/Y-CSS SB-MATCH/MAN	PTI-8
$M=0.8$	-	SEL PTI-0 ALL AUTO	PTI-0
$h=30K$	-	P/R/Y-CSS BF-MAN/TRAIL SB-MAN	POPU-5 