

SPACE SHUTTLE MISSIONS SUMMARY

FLT NO.	ORBITER	CREW (7)	LAUNCH SITE, LIFTOFF TIME, LANDING SITES, ABORT TIMES	LANDING SITE/ RUNWAY, CROSSRANGE, LANDING TIMES, FLT DURATION, WINDS	SSME-TL NOM-ABORT EMERG THROTTLE PROFILE ENG. S.N.	SRB RSRM AND ET	ORBIT		FSW	PAYLOAD WEIGHTS, PAYLOADS/ EXPERIMENTS	MISSION HIGHLIGHTS (LAUNCH SCRUBS/DELAYS, TAL WEATHER, ASCENT I-LOADS, FIRSTS, SIGNIFICANT ANOMALIES, ETC.)
		TITLE, NAMES & EVA'S					INC	HA/HP			
STS-85 SEQ FLT #86 KSC - 86 PAD 39A-50 MLP-3	OV-103 (Flight 23) Discovery OMS PODS: LPO1-26 RPO3-23 FRC3-23	CDR: Curtis L. Brown, Jr. (Flt 4 - STS-47, STS-66 & STS-77) P497/R152/V112/M136 PLT: Kent V. Rominger (Flt 3 - STS-73, STS-80) P498/R200/V131/M174 M/S 1 (PAYLOAD CDR): N. Jan Davis (Flt 3 - STS-47, STS-60) P499/R153/V100/F17 M/S 2: Robert L. Curbeam, Jr. P500/R224/M195 M/S 3: Stephen K. Robinson P501/R225M196 P/S 1: Bjarni V. Tryggvason (Canada) P502/R226/M197 MCC WHITE FCR (16) FLIGHT DIRECTORS: A/E/O1 - N. W. Hale LD/O 2 - B. P. Austin PLNG - G. A. Pennington MOD - A. L. Briscoe & J. W. Bantle	KSC PAD 39A 219:14:40:59.98Z 10:41:00 AM EDT (P) 10:41:00 AM EDT (A) Thursday 25 8/7/97 (6)	KSC 33 (KSC 39) 231:11:07:58Z 7:07:58 AM EDT Tuesday 13 8/19/97 (5)	104/104/ 109% PREDICTED: 100/104/104/ 67/104 ACTUAL: 100/104/104/ 67/104 1 = 2041 (3) 2 = 2039 (3) 3 = 2042 (2)	BI-089 RSRM 57 ET-87 LWT-80 ET PRED RPT: 271.3K ET BRKUP: 214K ET IMPACT 1:14:30 MET LAT: 42.77°S LONG 154.86° W	57 (19)	DIRECT INSERTION POST OMS-2: 161 X 160 NM SEP-1: 219:22:28:00 160.0 X 158.9 NM TI: 228:12:50:47 157.7 X 154.3 NM	OI-26 (1)	CARGO: 31959 LBS PAYLOAD CHARGEABLE: 24982 LBS DEPLOYED: 0 LBS NON-DEPLOYED: 24982 LBS MIDDECK: 1590 LBS SHUTTLE ACCUMULATED WEIGHTS: DEPLOYED: 837857 LBS NON-DEPLOYED: 1247831 LBS CARGO TOTAL: 2584542 LBS PERFORMANCE MARGINS (LBS): FPR: 3200 FUEL BIAS: 809 FINAL TDDP: 1446 RECON: 3065 PAYLOADS: PLB: CRISTA-SPAS-02 (Atmospheric physics, dynamics, and chemistry by MAHRSI, SESAM, MIDES, GAPS, and IPEX) MFD (Robot Arm) TAS-01 (8 technology and science experiments) IEH-2 (UV exp) MIDDECK: SWUIS, BDS-03, BRIC-10, PCG-STES, SSCE, ACIS, MSX, SIMPLEX 5 CRYO TK SETS 5 N2 TANKS RMS 48 (S.N. 301) RMS Used For CRISTA-SPAS deploy, grapple, and berth	KSC W/D: OPF 102 , VAB 5, PAD 23 = 130 days total. LAUNCH POSTPONEMENTS: - Baselined launch date of 7/17/97 on 3/28/96. - Postponed launch date to 8/7/97 on 4/17/97 caused by remanifest to reflly MSL-1 due to STS-83 early termination. LAUNCH SCRUBS: None LAUNCH DELAYS: None. TAL WX: - ZZA was prime but forecast NO GO with thunderstorms within 20 nm. MRN (selected) and BEN were forecast and observed GO. DOLILU-II I-LOADS: DOLILU-II uplink #17, I-load uplink #36. PERFORMANCE ENHANCEMENTS (FIRST FLIGHT): - Flight control filter updates. - Yaw gain enhancement. - Constant pitch rate at SRB separation. FLIGHT DURATION CHANGES: - Planned landing time was 230:11:14 on 8/16/97 , orbit 174. Waved off this only landing opportunity to land at KSC due to forecast of probability of fog. SLF was observed GO at landing time. Landed on orbit 190. - Flight duration extended 1 day. FIRSTS/LASTS: PLB: - First flight of OI-26. - First flight at 57 degrees inclination since STS-66. - First flight of complete Wraparound DAP (DTO 255). Used approximately 330 lbm RCS from EI to M=1 (vs redline of 1630 lbm). EVENTS: - Launched on Kent Rominger's birthday. - CRISTA-SPAS deployed at 00:07:46:04 MET, 219:22:27:04Z. - CRISTA-SPAS captured at 228:15:13Z, 09:00:32 MET. - Berthed and latched at 228:16:30:12Z, 09:01:49:32 MET. RENDEZVOUS #38: Deployed, rendezvoused, grappled, and berthed CRISTA-SPAS. SIGNIFICANT ANOMALIES: - CRT 1 transient BITE message. - Supply water tank A quantity erratic. - APU 1 seal cavity drain line pressure decay. - APU 1 fuel pump thermostat cyclic in narrow band. - Payload commanding problems with MCC input set to 3/sec.

