

STS-97 Ascent Events			SpaceCalc
EVENTS	Eastern	L-HH:MM	Pre-Launch Events
Shuttle Endeavour 15th flight	12:40:00 PM 06:15:00 PM 08:51:00 PM 09:01:00 PM	L-08:55 L-03:55 L-01:15 L-01:05	Fueling begins Crew Walkout T-20 and holding Resume countdown
Inc.: 51.6 Throttle: 104 Ha/Hp: 169X40 OMS: 175X105		L-MM:SS	Terminal Countdown
Launch 10:06:00 PM Win Close 10:11:00 PM	09:12:00 PM 09:57:00 PM 09:58:30 PM 10:01:00 PM 10:01:05 PM 10:02:05 PM 10:03:05 PM	L-54:00 L-09:00 L-07:30 L-05:00 L-04:55 L-03:55 L-02:55	T-9 hold begins Resume countdown Orbiter access arm retraction Auxilliary power unit start Liquid oxygen drainback begins Purge sequence 4 hydraulic test Oxygen tank at flight pressure
SLF Max Wind: 16 Wind Direction: 350 SLF Crosswind: 5.97 Xwind OK	10:03:05 PM 10:03:25 PM 10:04:03 PM 10:05:10 PM 10:05:29 PM 10:05:39 PM 10:05:53 PM	L-02:55 L-02:35 L-01:57 L-00:50 L-00:31 L-00:21 L-00:06.6	Gaseous oxygen vent arm retraction Fuel cells to internal Hydrogen tank at flight pressure Orbiter to internal power Shuttle computers control countdown Booster steering test Main engine ignition

Abort Data		L+MM:SS	Ascent Events	MPH
0:02:37 RTLS ONLY	10:06:00 PM	T+00:00	STS-97 liftoff!	(Vi)
	10:06:10 PM	T+00:10	Start roll program	920
	10:06:18 PM	T+00:18	End roll program	1,016
	10:06:39 PM	T+00:39	Main engine throttle down	1,330
	10:06:49 PM	T+00:49	Max Q (695 psf)	1,459
	10:06:53 PM	T+00:53	Main engine throttle up	1,507
	10:08:04 PM	T+02:04	SRB separation	3,648
	10:08:14 PM	T+02:14	Start OMS assist rocket firing	3,750
	10:08:37 PM	T+02:37	Last pre-TAL RTLS	3,955
0:02:19 TAL ONLY	10:08:38 PM	T+02:38	First two-engine TAL	3,955
	10:09:56 PM	T+03:56	End OMS assist rocket firing	5,455
	10:09:51 PM	T+03:51	Negative return	5,523
	10:10:57 PM	T+04:57	Last pre-ATO TAL	6,955
0:03:26 ATO	10:10:58 PM	T+04:58	Press to ATO	6,955
	10:11:50 PM	T+05:50	Single engine Zaragoza	9,000
	10:12:22 PM	T+06:22	Press to MECO	10,500
	10:13:07 PM	T+07:07	Single engine MECO	12,818
	10:13:21 PM	T+07:21	3G Limiting	13,636
	10:14:24 PM	T+08:24	MECO	17,659
	10:50:00 PM	T+44:00	OMS-2 orbit circularization	
STS-97 data; updated 11/29/00			Compiled by William Harwood	