

SpaceCalc					STS-120/ISS-10A Countdown	
T-HH	T-MM	L-HH	L-MM	L-SS	EDT	
Sat 10/20/07						
43	00	69	33	00	01:30 PM 02:00 PM	Call to stations Countdown begins
Sun 10/21/07						
33	00	59	33	00	12:00 AM	Fuel cell reactant load preps
31	00	57	33	00	02:00 AM	LC-39 periphery walkdown
27	00	53	33	00	06:00 AM	Clear crew module
27	00	53	33	00	06:00 AM	Begin 4-hour built-in hold
27	00	53	33	00	06:00 AM	Clear blast danger area
27	00	52	38	00	06:55 AM	Orbiter pyro-initiator controller test
27	00	52	28	00	07:05 AM	SRB PIC test
27	00	51	38	00	07:55 AM	Master events controller pre-flight BITE test
27	00	49	33	00	10:00 AM	Resume countdown
25	30	48	03	00	11:30 AM	Fuel cell oxygen loading begins
23	00	45	33	00	02:00 PM	Fuel cell oxygen load complete
23	00	45	33	00	02:00 PM	Fuel cell hydrogen loading begins
20	30	43	03	00	04:30 PM	Fuel cell hydrogen loading complete
19	30	42	03	00	05:30 PM	Pad open; ingress white room
19	00	41	33	00	06:00 PM	Begin 4-hour built-in hold
19	00	41	33	00	06:00 PM	Crew module clean and vacuum
19	00	41	33	00	06:00 PM	APU, engine covers off; RCS paper covers
19	00	41	03	00	06:30 PM	OMBUU demate
19	00	39	33	00	08:00 PM	MLP interior secured
19	00	37	33	00	10:00 PM	Countdown resumes
19	00	37	33	00	10:00 PM	Main engine preps
19	00	37	33	00	10:00 PM	MECs 1 and 2 on
17	30	36	03	00	11:30 PM	Remove OMS engine covers, throat plugs
Mon 10/22/07						
17	00	35	33	00	12:00 AM	Deflate RSS dock seals; tile inspection
16	30	35	03	00	12:30 AM	Tile inspection
12	00	30	33	00	05:00 AM	TSM prepped for fueling
11	00	29	33	00	06:00 AM	Begin 13-hour 13-minute hold
11	00	29	33	00	06:00 AM	OIS communications check
11	00	27	13	00	08:20 AM	JSC flight control team on station
11	00	27	13	00	08:20 AM	ASP crew module cable inspection
11	00	27	03	00	08:30 AM	Crew weather briefing
11	00	26	03	00	09:30 AM	Comm activation
11	00	25	33	00	10:00 AM	Crew module voice checks
11	00	25	03	00	10:30 AM	Debris inspection
11	00	24	23	00	11:10 AM	Flight crew equipment late stow
11	00	20	33	00	03:00 PM	RSS to park position
11	00	20	03	00	03:30 PM	Ascent switch list
11	00	19	33	00	04:00 PM	Final TPS, debris inspection
11	00	16	20	00	07:13 PM	Resume countdown
11	00	16	20	00	07:13 PM	Terminate pad tours
10	45	16	00	00	07:33 PM	APU bite test
10	45	16	00	00	07:33 PM	Pad clear of non-essential personnel
09	50	15	10	00	08:23 PM	Fuel cell activation
09	00	14	20	00	09:13 PM	Booster joint heater activation
08	30	13	43	00	09:50 PM	MEC pre-flight bite test

08	30	13	35	00	09:58 PM	Tanking weather update
08	00	13	20	00	10:13 PM	Final fueling preps; launch area clear
07	00	12	20	00	11:13 PM	Red crew assembled
06	15	11	35	00	11:58 PM	Fuel cell integrity checks complete
Tue 10/23/07						
06	00	11	20	00	12:13 AM	Begin 2-hour built-in hold (T-minus 6 hours)
06	00	11	10	00	12:23 AM	Safe-and-arm PIC test
06	00	10	05	00	01:28 AM	Mission management team tanking meeting
06	00	09	50	00	01:43 AM	Test team ready for ET loading
06	00	09	20	00	02:13 AM	Resume countdown (T-minus 6 hours)
06	00	09	20	00	02:13 AM	LO2, LH2 transfer line chilldown
05	50	09	10	00	02:23 AM	Main propulsion system chill down
05	50	09	10	00	02:23 AM	LH2 slow fill
05	20	08	40	00	02:53 AM	LO2 slow fill
05	15	08	30	00	03:03 AM	Hydrogen ECO sensors go wet
05	10	08	30	00	03:03 AM	LO2 fast fill
05	00	08	20	00	03:13 AM	LH2 fast fill
03	45	06	25	00	05:08 AM	LH2 topping
03	00	06	20	00	05:13 AM	LH2 replenish
03	00	06	20	00	05:13 AM	LO2 replenish
03	00	06	20	00	05:13 AM	Begin 2-hour 30-minute built-in hold (T-minus 3 hours)
03	00	06	20	00	05:13 AM	Closeout crew to white room
03	00	06	20	00	05:13 AM	External tank in stable replenish mode
03	00	05	50	00	05:43 AM	Astronaut support personnel comm checks
03	00	05	15	00	06:18 AM	Pre-ingress switch reconfig
03	00	04	55	00	06:38 AM	Final crew weather briefing
03	00	03	50	00	07:43 AM	Resume countdown (T-minus 3 hours)
02	55	03	45	00	07:48 AM	Crew departs O&C building
02	05	03	15	00	08:18 AM	Crew ingress
01	35	02	25	00	09:08 AM	Astronaut comm checks
01	20	02	10	00	09:23 AM	Hatch closure
00	35	01	15	00	10:18 AM	White room closeout
00	20	01	10	00	10:23 AM	Begin 10-minute built-in hold (T-minus 20m)
00	20	01	00	00	10:33 AM	NASA test director countdown briefing
00	20	01	00	00	10:33 AM	Resume countdown (T-minus 20m)
00	19	00	59	00	10:34 AM	Backup flight computer to OPS 1
00	15	00	55	00	10:38 AM	KSC area clear to launch
00	09	00	49	00	10:44 AM	Begin final built-in hold (T-minus 9m)
00	09	00	24	00	11:14 AM	NTD launch status verification
00	09	00	09	00	11:29:14 AM	Resume countdown (T-minus 9m)
00	08	00	07	30	11:30:44 AM	Orbiter access arm retraction
00	00	00	05	00	11:33:14 AM	Launch window opens
00	05	00	05	00	11:33:14 AM	Hydraulic power system (APU) start
00	05	00	04	55	11:33:19 AM	Terminate LO2 replenish
00	04	00	04	00	11:34:14 AM	Purge sequence 4 hydraulic test
00	04	00	04	00	11:34:14 AM	IMUs to inertial
00	04	00	03	55	11:34:19 AM	Aerosurface profile
00	04	00	03	30	11:34:44 AM	Main engine steering test
00	03	00	02	55	11:35:19 AM	LO2 tank pressurization
00	03	00	02	35	11:35:39 AM	Fuel cells to internal reactants
00	03	00	02	30	11:35:44 AM	Clear caution-and-warning memory
00	02	00	02	00	11:36:14 AM	Crew closes visors
00	02	00	01	57	11:36:17 AM	LH2 tank pressurization
00	01	00	00	50	11:37:24 AM	SRB joint heater deactivation
00	01	00	00	31	11:37:43 AM	Shuttle GPCs take control of countdown
00	00	00	00	21	11:37:53 AM	SRB steering test

00	00	00	00	07	11:38:07 AM	Main engine start (T-6.6 seconds)
00	00	00	00	00	11:38:14 AM	SRB ignition (LAUNCH)
Source: NASA (10/11/07)						Prepared by William Harwood