

The background of the title screen is a collage of various space shuttle-related images. At the top left, a space shuttle is shown in profile. In the center, a shuttle is being mated to the external tank and boosters. To the right, a shuttle is shown in a steep climb. Below the main title, a shuttle is shown in orbit. In the bottom right, a shuttle is shown on the launch pad. The overall theme is space exploration and simulation.

# S3 Space Shuttle Simulator

SPACE SHUTTLE SIMULATOR  
BY  
MIKAEL LUNDBERG

Checklists:

SELECT START POSITION:

1=LAUNCHPAD

2=ORBIT

3=ENTRY

4=LANDING

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# Launch:

Panel      Action

1

T-1:39:00 O5      Activate commanders communication system  
Set **XMIT ICOM** to **VOX/VOX**  
Set both **A/G, A/A** and **ICOM** to **T/R**  
Set **POWER** to **AUD/TONE**

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T-1:34:00 O9      Activate pilots communication system  
Set **XMIT ICOM** to **VOX/VOX**  
Set both **A/G, A/A** and **ICOM** to **T/R**  
Set **POWER** to **AUD/TONE**

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T-1:20:00 F6      Abort light for 8 seconds

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T-1:10:00 //      Side hatch secured

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T-1:05:00L2      cabin leak check  
Set **CABIN VENT ISOL** to **CLOSE**  
Set **CABIN VENT** to **CLOSE**

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T-0:50:00 //      Pilot confirms IMU alignment

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T-0:49:00 R2      Boiler checks  
Check **BOILER POWER 1/2/3** is **ON**  
Check **BOILER N2 1/2/3** is **ON**  
Check **BOILER CNTLR/HTR 1/2/3** is on position **A**

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T-0:31:00 C3      Backup flight control  
set **BFC CRT DISPLAY** to **ON**  
Check **BFC CRT SELECT** to **3+1**  
Keypad **ITEM 25 EXEC**

T-0:30:00	C3	OPS keypad OPS 9 PRO
	L2	Cabin vent set CABIN VENT ISOL to OPEN Set CABIN VENT to OPEN
<hr/>		
T-0:25:00	//	Voice check
<hr/>		
T-0:21:00	L2	Cabin vent set CABIN VENT ISOL to CLOSE Set CABIN VENT to CLOSE
<hr/>		
T-0:20:00	C3	Load OPS 1 keypad SPEC 99 PRO keypad OPS 101 PRO
<hr/>		
T-0:16:00	R2	Helium pressure of MPS Set MPS He ISOLATION A to OPEN Set MPS He ISOLATION B to OPEN Set PNEUMATIC He ISOL to OPEN Set all 6 ENGINE POWER to ON
<hr/>		
T-0:14:00	F6	Abort light for 8 seconds
<hr/>		
T-0:09:00	C3	Hold timer set set TIMER THUMBWHEELS to 0900 Set TIMER to SET Check EVENT TIMER MODE to DOWN Check EVENT TIMER MODE CONTROL to START

T-0:07:00	R2	APU prestart checks check <b>APU FUEL TK VLV1/2/3</b> on <b>CLOSED</b> Check <b>APU AUTO SHUTDOWN 1/2/3</b> on <b>ENABLE</b> Check <b>HYD MAIN PUMP PRESS 1/2/3</b> on <b>LOW</b> Check <b>APU SPEED SELECT 1/2/3</b> on <b>NORM</b> Check <b>HYD CIRC PUMP 1/2/3</b> on <b>GPC</b> Set <b>APU CNTLR PWR 1/2/3</b> to <b>ON</b>
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T-0:05:00	R2	start APU Set <b>APU FUEL TK VLV 1/2/3</b> to <b>OPEN</b> Set <b>HYD CIRC PUMP 1/2/3</b> to <b>OFF</b> Check <b>APU/HYD READY TO START</b> indicator <b>GREY</b> Set <b>APU OPERATE 1/2/3</b> to <b>START/RUN</b>
	F7	check <b>MFD2</b> that three APU = <b>900PSI</b>
	R2	set <b>HYD MAIN PUMP PRESS 1/2/3</b> to <b>NORM</b>
	F7	check <b>MFD2</b> that three APU = <b>3000PSI</b>
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T-0:04:30	//	external power disconnect
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T-0:03:45	//	Gimbal check
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T-0:02:50	//	External tank liquid oxygen vent closed
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T-0:02:00	R2	APU shutdown inhibit set <b>APU AUTO SHUTDOWN 1/2/3</b> to <b>INHIBIT</b>
	R1R	Bus set <b>AC BUS SNSR 1/2/3</b> to <b>MONITOR</b>
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T-0:00:00	//	LIFT OFF MISSION EVENT TIMER START

➔ launch complete GO FOR Mission Readiness Checklist

# Mission Readiness Checklist:

Panel      Action

4

T+0:02:07F7      SRB separation  
Check **OPS CRT DISPLAY**  
Check **SRB combustion chamber pressure < 50PSI**

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T+0:04:30//      **NEGATIVE RETURN**

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T+0:08:41F7      MECO  
check **MAIN ENGINE LIGHT STATUS** is **RED**  
O8      set **FWD RCS He PRESS A/B TANK ISOL 1-2/3-4-5**  
            to **OPEN**  
            set **MANIFOLD ISOL 1-2/3-4-5** to **OPEN**

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T+0:09:00C3      External tank separation

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T+ET sepC3      prepare for OMS burn  
To OMS brun      keypad: **OPS 105 PRO**  
                    keypad **ITEM 22 EXEC**  
F6      check **CSS** on **AUTO**  
C3      Check **DAP** on **AUTO**  
            keypad **ITEM 27 EXEC**  
            Set **OMS ENG LEFT/RIGHT** to **ARM/PRESS**  
O14      set **L OMS ENG LEFT/RIGHT** to **ON**  
O16      set **R OMS ENG LEFT/RIGHT** to **ON**  
//      MNVR 27 clear on finish  
C3      keypad **ITEM 23 EXEC**  
F4-F2      set **BODYFLAP INDICATOR** to **OFF**  
R2      set all 6 **ENGINE POWER** to **OFF**  
            Set **He ISOLATION A LEFT/CTR/RIGHT** to **GPC**  
            Set **He ISOLATION B LEFT/CTR/RIGHT** to **GPC**  
            Set **PNEUMATIC He ISOLATION** to **GPC**  
R4      set **H2 PRESS LINE VENT** to **OPEN**  
            check **DOOR INDICATORS** on **CLOSED**

R4 prepare for OMS burn (2)  
set **HYD MAIN PUMP PRESS 1/2/3** to **LOW**  
set **APU OPERATE 1/2/3** to **OFF**  
set **APU FUEL TK VLV 1/2/3** to **CLOSE**  
set **APU CNTLR PWR 1/2/3** to **OFF**  
set **BOILER PWR 1/2/3** to **OFF**  
set **BOILER N2 SUPPLY 1/2/3** to **OFF**  
set **HYD CIRC PUMP 1/2/3** to **GPC**  
set **H2 PRESS LINE VENT** to **GND**

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C3 OMS burn  
Keypad **EXEC** on **PILOT KEYPAD**  
Pilot CRT2 → Flashing EXEC

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T+ after OMS burn complete R4 Manual dump of liquid hydrogen  
set **LH2 OUTBOARD VLV** to **OPEN**  
Set **LH2 INBOARD FILL AND DRAIN VLV** to **OPEN**  
R1R set **AC BUS SENSOR 1/2/3** to **AUTO TRIP**

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C3 Lock down OMS  
set **OMS ENG LEFT/RIGHT** to **OFF**  
O14 set **L OMS ENG VLV** to **OFF**  
O16 set **R OMS ENG VLV** to **OFF**

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O17 Turn off all main engine controllers  
set **ATVC 1/2/3/4** to **OFF**  
Set **EIU LC/CR/RL** to **OFF**  
Set **MEC 1/2** to **OFF**  
R4 set **MPS/TVC ISOL VLV SYS 1/2/3** to **CLOSE**

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R4 Terminate vacuum inerting of hydrogen  
set **LH2 OUTBOARD FILL AND DRAIN VLV** to **GND**

F6 Orbiter manual control  
set **FLIGHT CNTRLR POWER** to **ON**

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// Rotate orbiter upright  
use the **RHC** to **ROLL 180°**

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R4 thermal conditioning of the orbiter  
set **BRAKE HEATERS A/B/C** to **ON**

A12 set **GAS GEN/FUEL PUMP 1/2/3** to **A AUTO**  
Set **LUBE OIL LINE 1/2/3** to **A AUTO**  
Set **TANK/FUEL LINE/H2O SYS 1/2/3** to **A AUTO**  
Set **HYDRAULIC HEATERS** for:  
**RUDDER SPD BRK** to **A AUTO**  
**BODY FLAP** to **A AUTO**  
**ELEVON** to **A AUTO**  
**AFT FUSELAGE** to **A AUTO**

A14 set **FWD RCS** to **A AUTO**  
Set **LEFT OMS POD** to **A AUTO**  
Set **RIGHT OMS POD** to **A AUTO**  
Set **OMS XFEED LINES** to **A AUTO**  
Set **FWD RCS JET 1/2/3/4/5** to **AUTO**  
Set **AFT RCS JET 1/2/3/4/5** to **AUTO**

A8 set **RMS HEATER** to **A AUTO**

L2 set **TOPPING EVAP NOZZLE HEATERS L/R**  
to **A AUTO**  
set **DUCT HEATER** to **A/B**  
set **HILOAD DUCT HEATER** to **A/B**

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C3 backup flight control system off  
set **BFC CRT DISPLAY** to **OFF**

- L4 Environmental system 2 close  
Set **O2 SYS2** to **CLOSE**  
Set **N2 SYS2** to **CLOSE**  
Set **N2 SYS2 REG INLET** to **CLOSE**
- L1 set **H2O LOOP 2 BYPASS MODE** to **AUTO**
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- O14-16 Rate gyro assembly  
set **RGA 1** to **OFF**  
Set **RGA2-3** to **OFF**  
Set **RGA4** to **OFF**
- R11L set **DUMP ISOL VLV** to **OPEN**
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- C3 Initialize on orbit phase  
keypad: **OPS 201 PRO**
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- O6 Enable star trackers  
set **STAR TRACKER POWER -Y/-Z** to **ON**  
Set **DOOR CONTROL SYS1/SYS2** to **OPEN**  
If indicators show **OP**  
Set **DOOR CTRL SYS 1/2** to **OFF**
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- R11 Payload bay doors  
keypad: **OPS 202 PRO**  
Set **MAJ FUNC** to **SM**  
Keypad: **ITEM 3 EXEC**  
Keypad: **ITEM 1 EXEC**
- R13 set **PL BAYDOOR SYS1/SYS2** to **ENABLE**  
Set **PL BAY DOOR** to **OPEN**  
check door indicator



R13 Deploy cooling radiators  
set **PL BAY MECH POWER SYS1/SYS2** to **ON**  
Set **RADIATOR LATCH SYSA/SYSB** to **RELEASE**  
If indicators show **REL**  
Set **RADIATOR CONTROL SYSA/SYSB** to **DEPLOY**

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R13 Deploy Ku band antenna  
set **KU ANTENNA** to **DEPLOY**

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R13 Lock down  
Set **RADIATOR CONTROL** to **OFF**  
Set **LATCH CONTROL** to **OFF**  
Set **PAYLOAD DOOR** to **STOP**  
Set **PL BAY MECH PWR SYS1/SYS2** to **OFF**  
Set **PL BAYDOOR SSY1/SYS2** to **DISABLE**

R11 Keypad: **ITEM 2 EXEC**  
Keypad: **OPS 201 PRO**

➔ Mission Readiness complete GO FOR orbit ops