

# CONTROL Flight Programming Worksheet

Description Dual Deploy w/ Air-Start, Aux Break Wire

Date 8/31/06 By Dave Flynn

".msc" Filename XRushMain2.nctr

## Self Test Checks

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Show Version        | <input checked="" type="checkbox"/> Confirm AUX continuity   |
| <input checked="" type="checkbox"/> Check Battery       | <input checked="" type="checkbox"/> Confirm FLOOR continuity |
| <input checked="" type="checkbox"/> Check Altimeter     | <input checked="" type="checkbox"/> Confirm PEAK continuity  |
| <input checked="" type="checkbox"/> Check Accelerometer | <input checked="" type="checkbox"/> Confirm AIR continuity   |
| <input type="checkbox"/> Confirm AUX open               | <input checked="" type="checkbox"/> Blink Peak               |

## Flight Parameters

Acceleration threshold	2.5g	Minimum battery voltage	8.8	V
Pressure ceiling	299ft	AIRSTART delay	4	s
Pressure floor	2000ft	PEAK delay	0	s
Landing threshold	3ft/s	FLOOR delay	0	s
FALLING! threshold	165ft/s	AUXILIARY delay	0	s

## Trigger Sequencing

- |   |     |                      |                                |
|---|-----|----------------------|--------------------------------|
| <input checked="" type="checkbox"/> Fire airstart | 4 s | from event timer # 2 | <input type="checkbox"/> latch |
| <input checked="" type="checkbox"/> Fire peak     | 0 s | from event timer # 4 | <input type="checkbox"/> latch |
| <input checked="" type="checkbox"/> Fire Floor    | 0 s | from event timer # 5 | <input type="checkbox"/> latch |
| <input type="checkbox"/> Fire auxiliary           | 0 s | from event timer # 0 | <input type="checkbox"/> latch |

## State Descriptions

State 0	LAUNCH DETECT
State 1	Burnout Detect
State 2	Break Wire Detect, Air-Start (AIR)
State 3	Acceleration Apogee
State 4	Pressure Apogee, Drogue Deployment (PEEK)
State 5	Main Deployment (FLOOR)
State 6	Unused
State 7	Unused

		0	1	2	3	4	5	6	7
ACC > threshold		✓	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ACC < zero		<input type="checkbox"/>	✓	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
VEL   > high limit		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
VEL   < low limit		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
VEL < zero		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ALT > ceiling		✓	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ALT < apogee		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ALT < floor		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✓	<input type="checkbox"/>	<input type="checkbox"/>
AUX channel open		<input type="checkbox"/>	<input type="checkbox"/>	✓	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
AUX channel closed		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Timeout		0	0	0	0	0	0	5	5
LED	15	●	○	○	○	○	○	○	○
	14	○	●	●	○	○	○	○	○
	13	○	○	○	○	○	○	○	○
	12	○	●	●	○	○	○	○	○
	11	●	○	○	○	○	○	●	○
	10	○	○	○	○	○	●	●	○
	9	○	○	○	○	○	●	●	○
	8	○	○	○	○	○	●	●	○
	7	●	○	○	○	○	○	●	○
	6	○	○	●	○	●	●	●	○
	5	○	○	○	○	●	●	●	○
	4	○	○	●	○	●	●	●	○
	3	●	○	○	○	○	○	●	○
	2	○	○	○	●	●	●	●	○
	1	○	○	○	●	●	●	●	○
	0	○	○	○	●	●	●	●	○