

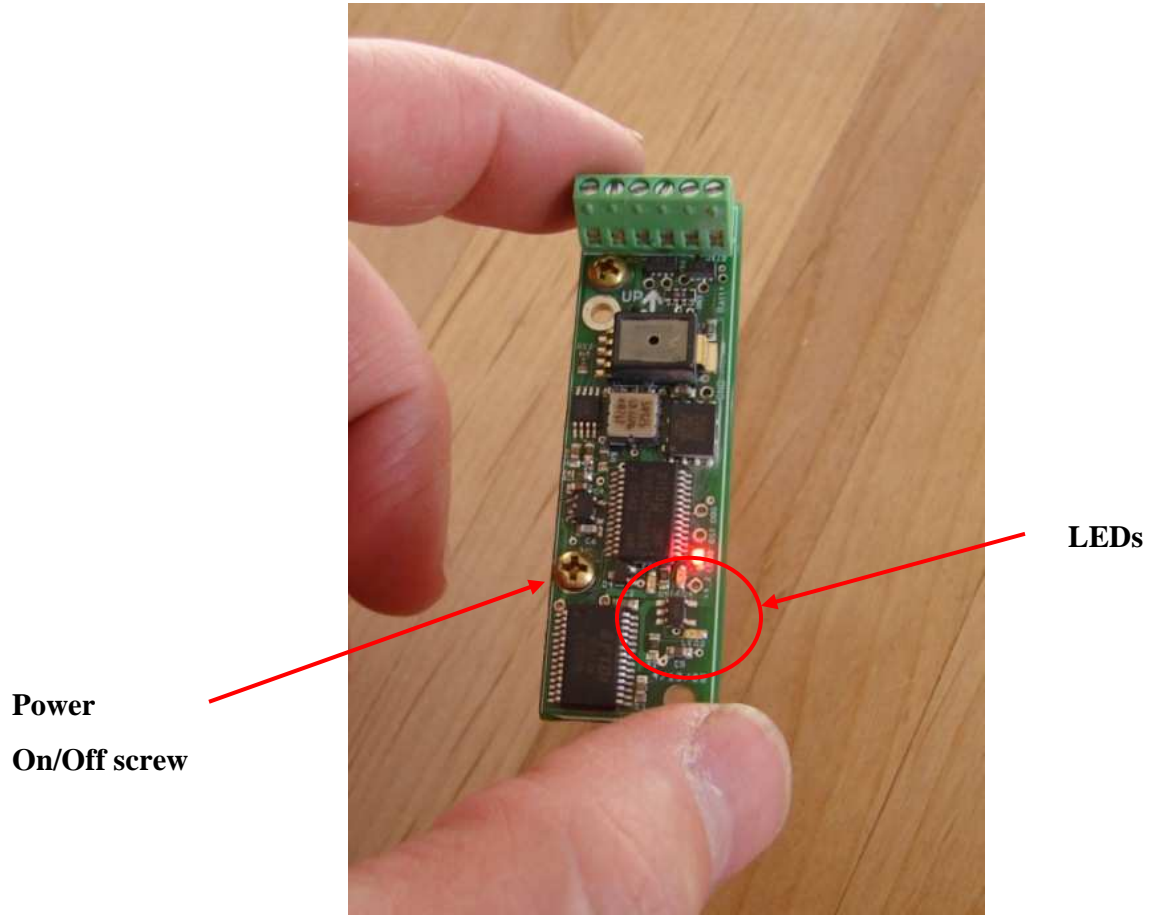


**Featherweight “Parrot”
Configuration & Checklist**

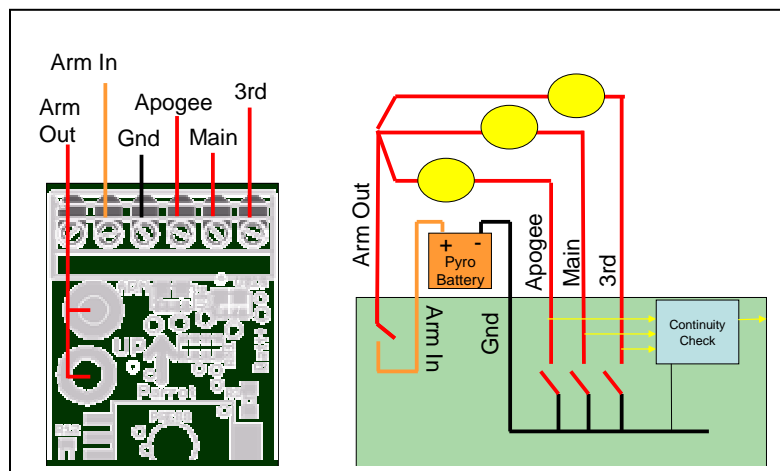
10 January 2010

1. Background

- 1.1. This document shows how to configure the Featherweight “Parrot” for flight and provides a final checklist to perform prior to launch.
- 1.2. It assumes the Parrot is currently installed in the launch vehicle. In instances where the Parrot is not installed this document will still be useful. The portions on interface connections and continuity checks will be different than shown. but configuration information is still applicable.



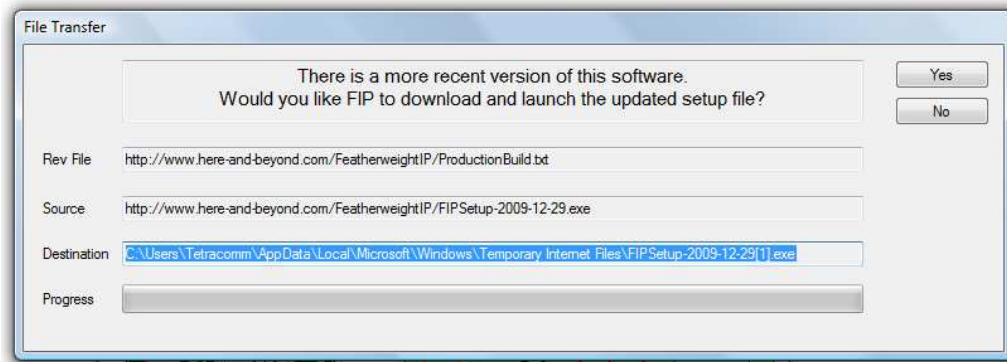
Featherweight Parrot



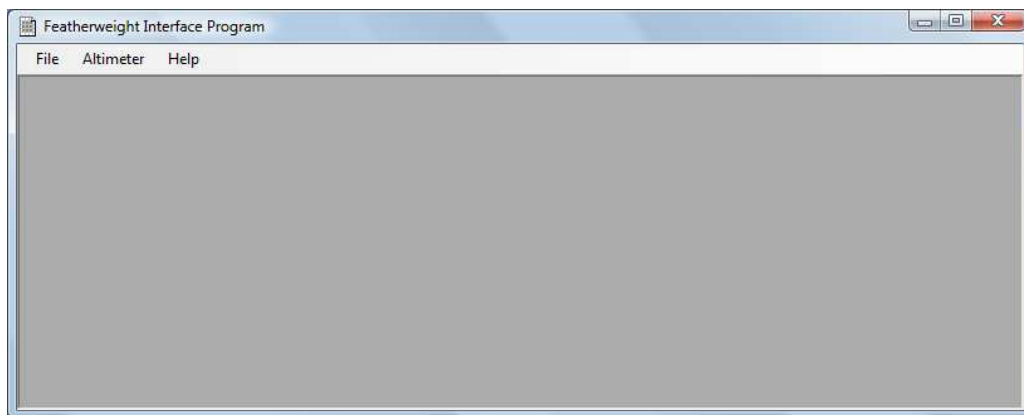
Parrot Interfaces

1. Configuration

- 1.1. Open the Featherweight Interface Program in the host PC. If prompted to load updates select “No”.



- 1.2. Verify the blank Featherweight Interface program window is displayed.



- 1.3. **Verify the Parrot’s Safe/Arm switch is in the “Safe” position. If possible disconnect the power supply to the Igniters.**
- 1.4. Turn the Parrot power On/Off screw to Off (unscrew slightly). Verify the Parrot is off by observing the LEDs on the card to be off.
- 1.5. Connect a USB cable to the Parrot’s USB interface and the host PC’s USB interface. Verify a new COM Port Detected pop-up appears.

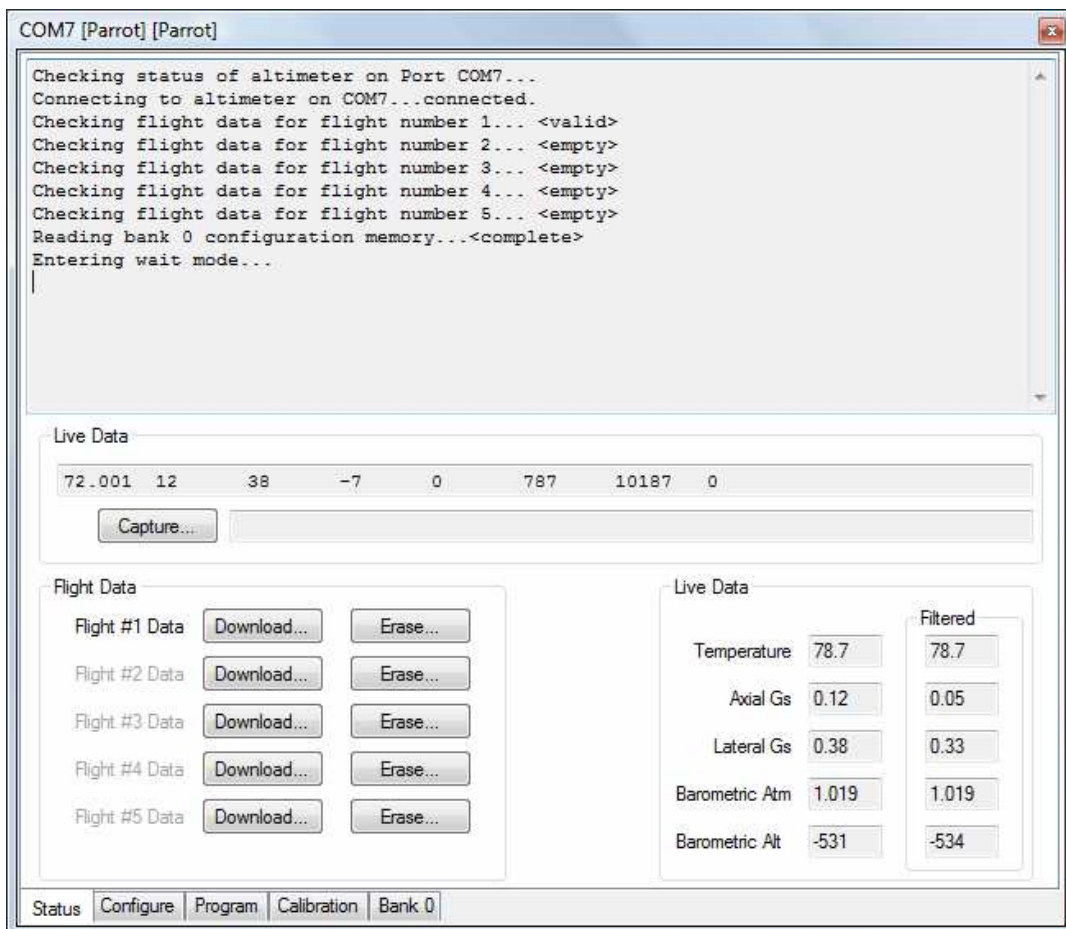


1.7. Verify the Parrot red and blue LEDs illuminate and flash respectively.

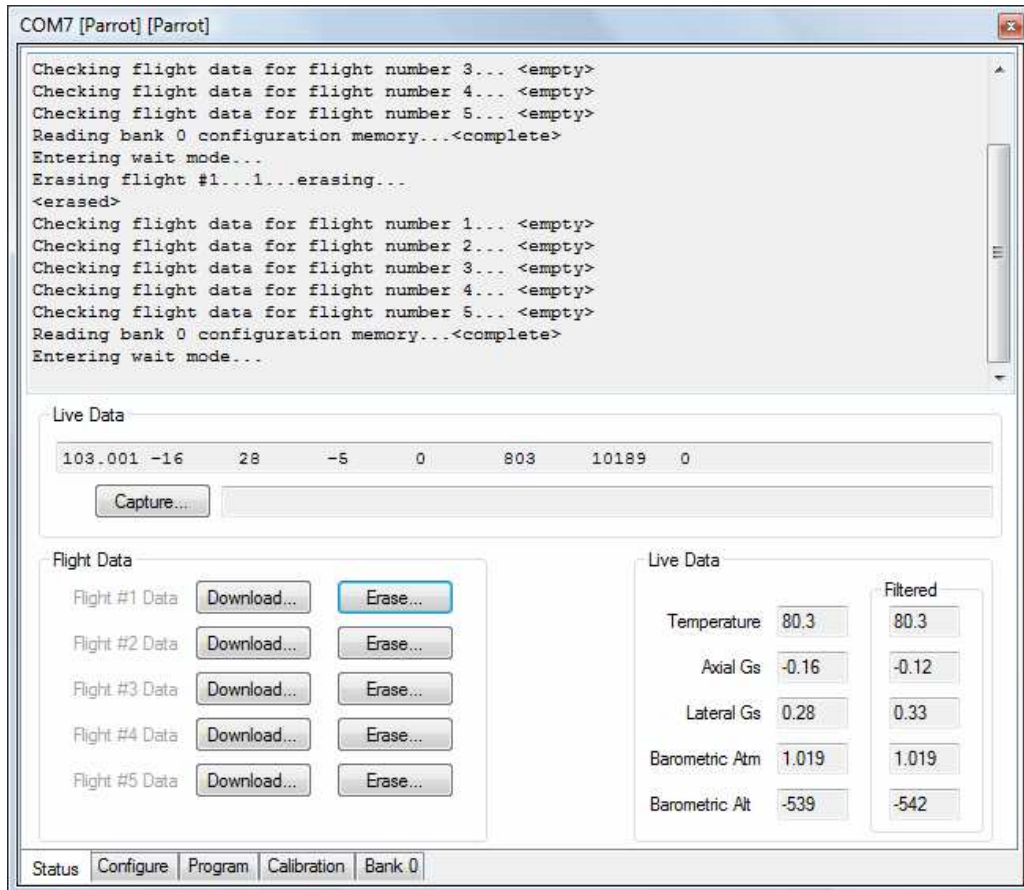
1.8. Tighten the Parrot's power On/Off screw until snug. If the integral battery is discharged the parrot's Red led will stay illuminated. If the Red Led goes out the battery is fully charged.

1.9. At the New COM Port Pop-up Select "Parrot" and select "OK" for the COM Port displayed.

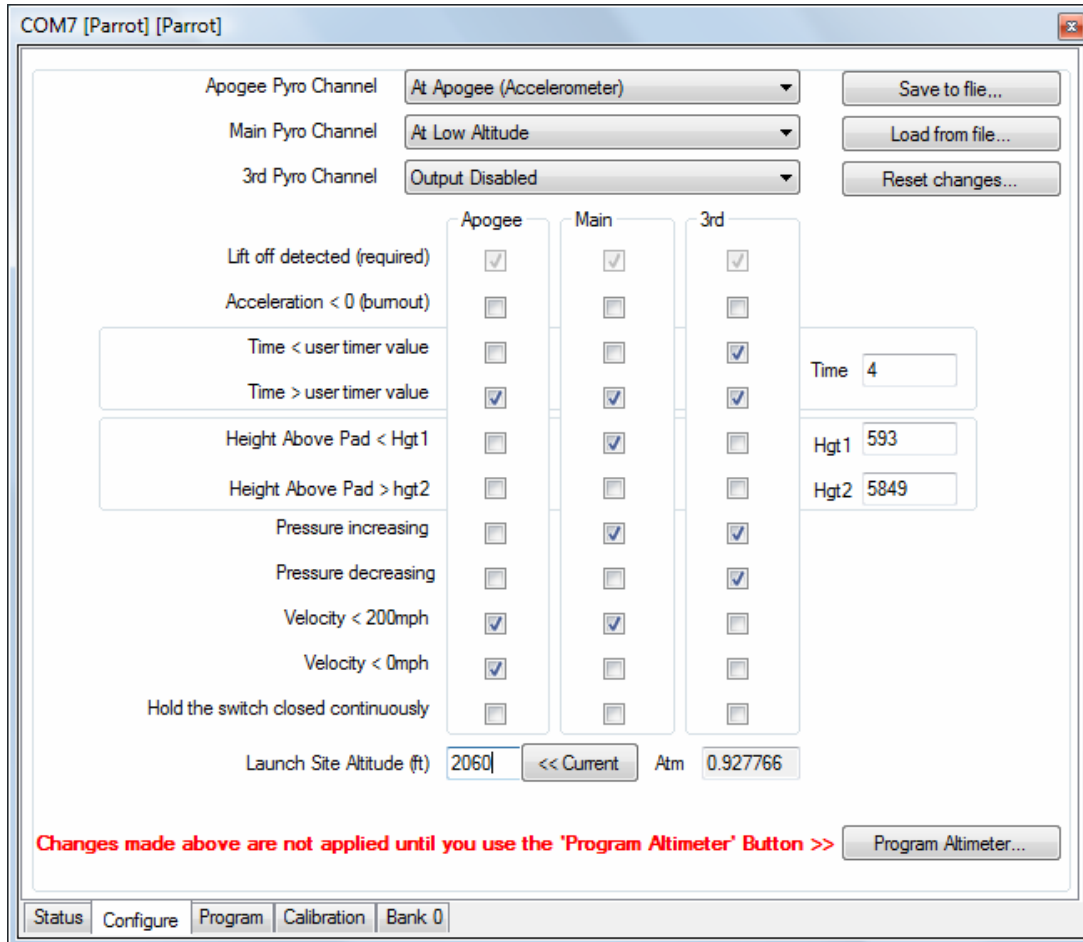
1.10. Verify the Parrot "Status" data page opens and is active.



- 1.11. Select the “Download” for any of the five recorded flights with “valid data” you wish to preserve.
- 1.12. Select Erase and answer the pop-up prompt for all five Flight Data records.



- 1.13. Verify the status page updates with the new information as commanded.
- 1.14. Select the “Configure” button at the bottom of the page. The Configuration page will appear.



1.15. Designate the three Pyro Channels using the pull down menus as desired.

1.16. Enter the Launch Site Altitude in the box at the bottom of the Configuration page.

Examples: Lucerne Dry Lake CA. 2848 ft.
Cantil, CA FAR Site 2060 ft.

1.17. Modify the default settings if necessary to tune the altimeter to the flight plans.

1.18. Select the “Program Altimeter” when ready and note the message string displayed in the pop-up.

1.19. Answer the resulting Pop-up “Yes/No” as when ready.

- 1.20. Verify on the Status Page that the programming was completed successfully by matching the status update information against the message string noted earlier.
- 1.21. Verify the Parrot battery is fully charged by noting the red Led is Off and the blue Led is flashing.
- 1.22. Stop the battery charging by loosening the power screw a turn or two. The red Led should now be On and the blue led flashing.
- 1.23. Power off by disconnecting the USB cable. All Leds should be off. The Parrot is now ready for use.

2. Pre-Flight Checklist

Inspect connections:

External Safe/Arm Switch	Connected and set "Safe"	<input type="checkbox"/>
Arm Out	Open	<input type="checkbox"/>
Arm In	Open	<input type="checkbox"/>
Ground	Connected	<input type="checkbox"/>
Apogee Igniter	Connected	<input type="checkbox"/>
Main Igniter	Connected	<input type="checkbox"/>
3rd Igniter	Open	<input type="checkbox"/>
Hardware	Tight	<input type="checkbox"/>

Measure:

Igniter Battery Voltage	9VDC (fresh battery)	<input type="checkbox"/>
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Note: Each igniter's continuity should be measured from the connection at the Safe/Arm switch to the Parrot's terminal using a low current tester.

Apogee Igniter Continuity	< 5 Ohms	<input type="checkbox"/>
Main Igniter Continuity	< 5 Ohms	<input type="checkbox"/>

