

## Vehicle Close Out Check List

## 1. Motherboard

- a. Board serial number #2
- b. Vehicle Name is "Tethys"
- c. Memory Card Installed? Yes
- d. LED Jumpers

| Jumper | Comment       | Status (1 = On) | Removed |
|--------|---------------|-----------------|---------|
| JP-26  | 24 vdc LC     | 1               |         |
| JP-32  | 5 vdc         | 1               |         |
| JP-33  | 3.3 vdc       | 1               |         |
| JP-31  | 3.15 vdc      | 1               |         |
| JP-36  | 12 vdc LC     | 1               |         |
| JP-35  | 5 vdc LC      | 1               |         |
| JP-34  | 3.3 vdc LC    | 1               |         |
| JP-41  | Shore Power   | 0               |         |
| JP-43  | 1.8 vdc       | 1               |         |
| JP-30  | Vehicle Power | 1               |         |
| JP-42  | Battery Power | 1               |         |

## e. Other Jumpers

| Jumper | Comment     | Status    | Correct |
|--------|-------------|-----------|---------|
| JP-1   | VBAT to LPC | installed |         |
| JP-2   | /service    | open      |         |
| JP-4   | flash       | open      |         |
| JP-5   |             | Open      |         |
| JP-6   |             | 1&2       |         |
| JP-7   |             | Open      |         |
| JP-8   | UART 1      | 3&4 7&8   |         |
| JP-9   |             | 1&2, 5&6  |         |
| JP-10  | UART 3      | 3&4 7&8   |         |
| JP-11  |             | Open      |         |
| JP-12  |             | 3&4 7&8   |         |
| JP-13  |             | 3&4 7&8   |         |
| JP-14  |             | 3&4 7&8   |         |
| JP-15  |             | 1&2       |         |
| JP-16  |             | 3&4 7&8   |         |
| JP-17  |             | 1&2       |         |
| JP-18  |             | 1&2 5&6   |         |
| JP-19  |             | 1&2       |         |
| JP-20  |             | 3&4 7&8   |         |
| JP-21  |             | 1&2       |         |
| JP-22  |             | 1 & 2     |         |
| JP-23  |             | 1&2       |         |

|       |  |      |  |
|-------|--|------|--|
| JP-27 |  | open |  |
| JP-28 |  | 1&2  |  |
| JP-37 |  | 3&4  |  |
| JP-40 |  | open |  |

## f. Connectors

| Connector | Description                 | Correct? |
|-----------|-----------------------------|----------|
| J-3       | !! empty !!                 |          |
| J-4       | Batt comms                  |          |
| J-5       | 485 comms EZ servo          |          |
| J-6       | DVL                         |          |
| J-7       | Iridium                     |          |
| J-8       | Batt comms                  |          |
| J-9       | H2O detect                  |          |
| J-10      | H2O detect                  |          |
| J-11      | Humidity and Temp           |          |
| J-14      | Sea water ground            |          |
| J-20      | Drop weight / burn wire     |          |
| J-21      | Iridium power               |          |
| J-23      | Ethernet                    |          |
| J-31      | SP3004D                     |          |
| J-32      | empty                       |          |
| J-33      | Free Wave                   |          |
| J-34      | Tether                      |          |
| J-35      | Main Batt                   |          |
| J-36      | Shore Power                 | empty    |
| J-37      | Emerg Batt                  |          |
| J-38      | LC pwr to Iridium, Slot 2   |          |
| J-39      | LC pwr to Freewave, Slot 10 |          |
| J-40      | Freewave power              |          |
| J-46      | LCB #2 SPI !! Res 13-15 !!  |          |
| J-47      | LCB #2 power                | Open     |
| J-48      | LCB #1 power                |          |
| J-49      | LCB #0 power                |          |
| J-50      | LCB #1 SPI                  |          |
| J-51      | LCB #0 SPI                  |          |

## 2. EZ Servos

| Name         | Address | J-1 | J-2 | J-3 | J-4 | J-5 | J-6 | Checked? |
|--------------|---------|-----|-----|-----|-----|-----|-----|----------|
| Elevator     | 1       | -   | Y   | -   | -   | Y   | Y   | TTH      |
| Rudder       | 2       | -   | Y   | -   | -   | Y   | Y   | TTH      |
| Prop         | 3       | -   | Y   | Y   | Y   | -   | Y   | TTH      |
| VB           | 6       | Y   | Y   | Y   | Y   | Y   | Y   | TTH      |
| Mass Shifter | 4       | -   | Y   | -   | Y   | Y   | Y   | TTH      |

## 3. Load Control Boards

| Slot | Ser #                | Device served                     | Jumper for pwr red |
|------|----------------------|-----------------------------------|--------------------|
| 0    | 1-0-0-Mike A/D       | MSI 3000                          | -                  |
| 1    | Empty                |                                   | -                  |
| 2    | 13-232-5             | Iridium power (no comms)          | 1 + 3              |
| 3    | 2-232-0-Comm         | DO                                | 13                 |
| 4    | 3-232-0-Comm         | CTD                               | 13                 |
| 5    | 16-232-12            | Puck (pwr and comm.)              | 1 + 3              |
| 6    | 5-232-0-Comm         | MicroStrain compass               | 13                 |
| 7    | 15-485-Batt          | Thruster (pwr, no comm)           | 1 + 3              |
| 8    | 9-0-Batt-Pwr         | Mass + Buoy                       | 12                 |
| 9    | 10-0-Bat-Pwr         | Rudder + Elevator                 | 12                 |
| 10   | 17-Offboard-5        | Freewave                          | 1 + 3              |
| 11   | 14-232-Batt-Discrete | ISUS                              | 1 + 3              |
| 12   | Empty                |                                   | -                  |
| 13   | Empty                |                                   | -                  |
| 14   | Pwr Breakout         | 3.3 Sparton, 5 CTD, 12 DO, 24 DVL | -                  |
| 15   | Pwr Breakout         | 5 MicroStrain                     | -                  |

## 4. Variable Buoyancy Valve Board

| Connector       | Connected |
|-----------------|-----------|
| Shutoff Valve   |           |
| Pressure Switch |           |
| VB EZSV23       |           |
| Batt Pwr        |           |

- a. Pressure switch set at 100 psig

## 5. Shore Power DEMUX-MUX boards

## a. DEMUX

- i. Two supply connections on positive board
- ii. One load connection on positive board
- iii. Two supply connections on negative board
- iv. One load connection on negative board
- v. Sense lines connected to positive and negative posts

## b. MUX

- i. One positive connection
- ii. One negative connection
- iii. Six load connections to Ocean Servers

## 6. Battery Boards

- a. All connectors are verified installed and tight

7. Emergency Battery
  - a. Voltage: 12.776
  - b. New on 2010 / 08 / 29
8. Mass Shifter stops
  - a. Aft at 9 5/8 inches
  - b. Fwd at 37 5/8 inches, different mount
9. Iridium
  - a. col
  - b. tNe
10. Weights Installed Internally
  - a. Forward
    - i. None
  - b. Aft
    - i. None
11. Clean and inspect aft dome o-rings
12. Clean and inspect fwd dome o-rings
13. Clean and inspect bolt o-rings
14. Install 22 new desiccant bags
15. Install PV tube
  - a. Verify water detect sensors touching inside surface of tube
  - b. Verify all internal wires are clear
  - c. Verify o-rings seat
16. Install Forward Dome
  - a. Make Amphenol connection
  - b. Torque bolts to 75 inch pounds
17. Draw vacuum
  - a. 10 inches Hg /        psi at 2010/10/02 2028
18. Batteries installed in external xpdrs
  - a. Pinger RJE
    - i. Model ULB-350/37
    - ii. Serial DT16485
    - iii. Freq 37KHZ 1pps
    - iv. New Batteries on 2010/08/30

- b. Transponder - Benthos
  - i. Model UAT-49897
  - ii. Serial 2202
  - iii. Rcv 26 KHZ
  - iv. Pressure tested to 1100 psi (730 meters)
  - v. New Batteries on \_\_\_\_2010/08/30\_