

Tiny: SV3 Pre-Launch Checklist

Status Checklist Config Operate Setup Help

Readme

SV3 Pre-Launch Checklist

|         |                          |              |                     |
|---------|--------------------------|--------------|---------------------|
| Date    | 2022-09-08T22:20:58.301Z | Glider Name  | SV3-794595959(Tiny) |
| Tech(s) | cwahl                    | Organization | MBARI               |
| Project | MBTS                     | Ship/Op Area | Paragon MB          |

Software Information

|                 |                                                                                                                                                        |
|-----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| Regulus Version | Tiny, sn=794595959, Running Regulus 3.2.2, software version of 2019-12-03T23:58:34Z, production build 35, sv3, SOMDM3730-30-1880AKIR-A, (1.2.3) secure |
| Plugins         | Running: AirmarWeather, LogAlarmReporter, PortForwarder, ThrusterAdjuster Not running: GPSasRudderCompass                                              |

Communication

| Item/Procedure             | Readings                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Comments                                                                                   | Initials                            |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|-------------------------------------|
| WiFi Connection            | Wifi is On                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                            | <input checked="" type="checkbox"/> |
| Virtual Relay              | 0 queued msgs state=WAITING, sent=0, received=0, powerState=ON (1h47m46.321s), virtualDevice=true, Requested by: pilotRequest, powerThreadActive=false (no internet connectivity)                                                                                                                                                                                                                                                                                                                                                                                           | Cell modem still not working due to sunset of 3g network.                                  | <input checked="" type="checkbox"/> |
| WGMS Iridium               | IMEI:300434060708190, starts=1, r=18, w=122, sessionAttempts=163, sessionErrs=26, wErrs=0, rErrs=0, cErrs=0, 10m ss avg=1.4 (i=5), 1 queued msgs state=TALKING, sent=122, lastTx=3.392s, avgTxSize=74.7B, totalTx=9.832kB, received=18, lastRx=6m8.323s, avgRxSize=31.3B, totalRx=0.688kB, powerState=ON (1h47m19.790s), virtualDevice=true, Requested by: iridiumModem, powerThreadActive=false                                                                                                                                                                            |                                                                                            | <input checked="" type="checkbox"/> |
| Vehicle telemetry received | available channels=[tcpChannel, virtualRelay, iridiumModem]921 blocked messages, averageMessageQueueRate=32.639s, sent=122, totalBytesSent=9.832kB, received=18, totalBytesReceived=0.688kB, lastRx=6m8.385s, ProtobufMessageHandler[header=BB,header=BC,active=true, #accepted=0, #handled=0],ProtobufMessageHandler[header=BB,header=BC,active=true, #accepted=0, #handled=0],secureComms[header=A9,active=true, #accepted=0, #handled=0],WGMSCommandHandler[header=0A,active=true, #accepted=18, #handled=18, lastRx=rx=2022-09-08T22:14:50.064Z, receiver=iridiumModem, |                                                                                            | <input checked="" type="checkbox"/> |
| Location                   | Using GPSUblox, declination=12.750991, failoverCounter=1, timeLastSwitchedGps=2022-09-08T20:35:33Z, clockDt=3.503s                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                            | <input checked="" type="checkbox"/> |
| Tracker telemetry received | Battery (Volts)<br>Report Rate                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 15.7 volts<br>4 hours<br>Replace Batts before Station M mission, was left on in Building D | <input checked="" type="checkbox"/> |

Configuration

| Item/Procedure                      | Readings              | Specifications                      | Comments                                                                                     | Initials                            |
|-------------------------------------|-----------------------|-------------------------------------|----------------------------------------------------------------------------------------------|-------------------------------------|
| Tracker WGMS name                   | Tiny Tracker          |                                     |                                                                                              | <input checked="" type="checkbox"/> |
| (Optional) Second Tracker Name      |                       |                                     |                                                                                              | <input type="checkbox"/>            |
| Drybox WGMS name                    | SV3-011 Tiny          |                                     |                                                                                              | <input checked="" type="checkbox"/> |
| Float name                          | Tiny2                 |                                     | Tinys orig. yellow hull damage during last mission. I installed one of the JRF Copper hulls. | <input checked="" type="checkbox"/> |
| Glider name                         | Tiny v150             |                                     |                                                                                              | <input checked="" type="checkbox"/> |
| Umbilical Length                    | 4m                    |                                     |                                                                                              | <input checked="" type="checkbox"/> |
| G1                                  | Ecopuck               |                                     |                                                                                              | <input checked="" type="checkbox"/> |
| G2                                  |                       |                                     |                                                                                              | <input type="checkbox"/>            |
| G3                                  |                       |                                     |                                                                                              | <input type="checkbox"/>            |
| T1                                  |                       |                                     |                                                                                              | <input type="checkbox"/>            |
| D1                                  |                       |                                     |                                                                                              | <input type="checkbox"/>            |
| S1                                  | Hotspot 2 with LF dir |                                     |                                                                                              | <input checked="" type="checkbox"/> |
| S2                                  | GPCTD plus D0         |                                     |                                                                                              | <input checked="" type="checkbox"/> |
| S3                                  | pCO2 plus pH          |                                     |                                                                                              | <input checked="" type="checkbox"/> |
| S4                                  | Airmar                |                                     | Air pressure matched MLML weather station pressure?                                          | <input checked="" type="checkbox"/> |
| Event definitions                   |                       | Compare against standard list       |                                                                                              | <input checked="" type="checkbox"/> |
| Vehicle and tracker op area defined |                       | Note area name(s) and enable alarms |                                                                                              | <input checked="" type="checkbox"/> |
| Escalation list created/populated   |                       |                                     |                                                                                              | <input checked="" type="checkbox"/> |

Vehicle Status

| Item/Procedure              |  | Readings  |  |  |  | Comments             | Initials                            |
|-----------------------------|--|-----------|--|--|--|----------------------|-------------------------------------|
| Battery [Wh] > 700 Wh       |  | 893.03 // |  |  |  | <input type="text"/> | <input checked="" type="checkbox"/> |
| Solar Power Indicators: > 0 |  | 14.911 // |  |  |  | <input type="text"/> | <input checked="" type="checkbox"/> |
|                             |  | 0.0 //    |  |  |  |                      |                                     |
|                             |  | 16.472 // |  |  |  |                      |                                     |
|                             |  | 20.241 // |  |  |  |                      |                                     |

| Item/Procedure                                                                                    |  | Readings             |                  |                |                             |                      |                                     |
|---------------------------------------------------------------------------------------------------|--|----------------------|------------------|----------------|-----------------------------|----------------------|-------------------------------------|
| Domain Info                                                                                       |  | AMPS Hardware Status | Temperature (°C) | Pressure (kPa) | Hardware Uptime             | Comments             | Initials                            |
| Domain_Name=Host, Node=1, HW_SerNum=0x3132471639323739002d0037 On=Y                               |  | OK //                | 30.6 //          | 120.4 //       | Uptime: 0 days, 01:50:00 // | <input type="text"/> | <input checked="" type="checkbox"/> |
| Domain_Name=Thruder-2, Node=3, HW_SerNum=0x3333470738373634002c001c On=Y                          |  | OK //                | 23.4 //          | 146.9 //       | Uptime: 0 days, 01:42:08 // | <input type="text"/> | <input checked="" type="checkbox"/> |
| Domain_Name=PyldInt-0x33335114373330300043001a, Node=5, HW_SerNum=0x33335114373330300043001a On=Y |  | OK //                | 28.8 //          | 118.6 //       | Uptime: 0 days, 01:23:38 // | <input type="text"/> | <input checked="" type="checkbox"/> |

Mechanical Checks

|       | Item/Procedure                    | Specifications                                            | Comments             | Initials                            |
|-------|-----------------------------------|-----------------------------------------------------------|----------------------|-------------------------------------|
| Float | Wet-mates connected/lubed         | 3M Silicone Lubricant Spray 3M ID No. 62-4678-4930-3      | <input type="text"/> | <input checked="" type="checkbox"/> |
|       | Connector covers secure           |                                                           | <input type="text"/> | <input checked="" type="checkbox"/> |
|       | Drybox secure                     | Wiggle test                                               | <input type="text"/> | <input checked="" type="checkbox"/> |
|       | Contact info secure               |                                                           | <input type="text"/> | <input checked="" type="checkbox"/> |
|       | Hull                              | Inspect, note condition                                   | <input type="text"/> | <input checked="" type="checkbox"/> |
|       | Skeg/Fin                          | Secure                                                    | <input type="text"/> | <input checked="" type="checkbox"/> |
| Sub   | Hardware secure                   |                                                           | <input type="text"/> | <input checked="" type="checkbox"/> |
|       | Umbilical visual inspection       | Free of voids/defects                                     | <input type="text"/> | <input checked="" type="checkbox"/> |
|       | Umbilical ribbon cable inspection |                                                           | <input type="text"/> | <input checked="" type="checkbox"/> |
|       | Roll pins inserted                | Flush with surface                                        | <input type="text"/> | <input checked="" type="checkbox"/> |
|       | Wings                             | Hardware secure with Loctite, lock nuts, and seizing wire | <input type="text"/> | <input checked="" type="checkbox"/> |
|       | Thruder                           | Hardware secure                                           | <input type="text"/> | <input checked="" type="checkbox"/> |

Vehicle Functionality

| Item/Procedure              | Readings                                                                                                                                                                                                                              | Specifications                           | Comments                  | Initials                            |
|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|---------------------------|-------------------------------------|
| Thruster Spin               | 443.0 //                                                                                                                                                                                                                              | Spins freely, slow and fast speeds       | <input type="text"/>      | <input checked="" type="checkbox"/> |
| Rudder Range of Motion      |                                                                                                                                                                                                                                       | Rudder moves freely and smoothly         | <input type="text"/>      | <input checked="" type="checkbox"/> |
| Rudder right, left, center  | Rudder(2022-09-08T22:20:54.940Z,desiredHeading=217.3,compass=30.2,rack=-12.9,post=-15.1rudderSt                                                                                                                                       | Right, Left, Center                      | <input type="text"/>      | <input checked="" type="checkbox"/> |
| Thruder Compass Correction  | Thruder compass is corrected //                                                                                                                                                                                                       | recommended NOT corrected                | LR says that this is okay | <input checked="" type="checkbox"/> |
| Fixed heading test (spin)   | 180                                                                                                                                                                                                                                   | Avoidance Off, Note Heading Used         | <input type="text"/>      | <input checked="" type="checkbox"/> |
| Waypoint course test (spin) | 41                                                                                                                                                                                                                                    | Avoidance Off, Note Waypoint Course Used | <input type="text"/>      | <input checked="" type="checkbox"/> |
| Buoy Release Mechanism      | device is disarmed, deviceState=OFF, deployCounter=0, waitTime=1m30s, powerState=OFF (1h45m22.612s), ampsPower=false, powerThreadActive=false //                                                                                      | Catch release buoy by hand               | <input type="text"/>      | <input checked="" type="checkbox"/> |
| Octopus Cable 01            | OK //                                                                                                                                                                                                                                 | Must Pass                                | <input type="text"/>      | <input checked="" type="checkbox"/> |
| Octopus Cable 02            | OK //                                                                                                                                                                                                                                 | Must Pass                                | <input type="text"/>      | <input checked="" type="checkbox"/> |
| AIS Status                  | lastSeen=MMSI 367766000 (WESTERN FLYER). Pos=36.802402, -121.787057. t=33:0:UNDERWAY_ENGINE, 2022-09-08T22:21:04.382Z, lengthErrs=0, latlonErrs=0, broadcastCount=722, lastRx=8.583s, numberObserved=3, averageRxRateMillis=9.909s // | If in harbor, must see MMSI              | <input type="text"/>      | <input checked="" type="checkbox"/> |
| Photo Document              |                                                                                                                                                                                                                                       |                                          | <input type="text"/>      | <input checked="" type="checkbox"/> |

Vehicle Communication and Telemetry

| Item/Procedure            | Readings / Specifications                                                                                                                                                                                                                                                                                                                                                             | Comments                            | Initials                            |
|---------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|-------------------------------------|
| WX reporting              | Temp=21.5°C, Press=1005.7mb, Wind Speed=4.37kn, Wind Dir=213.5°. Heading=23.0° //                                                                                                                                                                                                                                                                                                     | Pressure matches MLML weather site? | <input checked="" type="checkbox"/> |
| UBLOX GPS                 | 2022-09-08T22:21:17Z@36.8023312,-121.7871482,lastRx=0.070s, quality=100, timeout=1m, nmeaValid=true, clockDt=3.927s, lastValidFix=2022-09-08T22:21:17Z@36.8023312,-121.7871482, gpsWatchdogFailureCounter=0, ggaQCount:2=300,numSat:sma=10.48,std=0.53,min=9.00,max=11.00,n=300,hdp:sma=0.95, std=0.04,min=0.94,max=1.10,n=300,altitude:sma=3.23,std=0.72,min=1.60,max=4.50,n=300 //  | <input type="text"/>                | <input checked="" type="checkbox"/> |
| Airmar GPS                | 2022-09-08T22:21:16.590Z@36.8023767,-121.78713,lastRx=0.541s, quality=80, timeout=5m, nmeaValid=true, clockDt=3.454s, lastValidFix=2022-09-08T22:21:16.590Z@36.8023767,-121.78713, gpsWatchdogFailureCounter=0, ggaQCount:2=300,numSat:sma=9.00,std=0.00,min=9.00,max=9.00,n=300,hdp:sma=1.10, std=0.00,min=1.10,max=1.10,n=300,altitude:sma=2.24,std=1.69,min=0.70,max=5.70,n=300 // | <input type="text"/>                | <input checked="" type="checkbox"/> |
| Torpedo GPS               | Not Available! //                                                                                                                                                                                                                                                                                                                                                                     | <input type="text"/>                | <input checked="" type="checkbox"/> |
| Water speed readings      | Unknown speed; ncc=0, nci=0, tec=0, aip=0.00 //                                                                                                                                                                                                                                                                                                                                       | Not turned on                       | <input checked="" type="checkbox"/> |
| Obstacle Avoidance Status | Enabled //                                                                                                                                                                                                                                                                                                                                                                            | <input type="text"/>                | <input checked="" type="checkbox"/> |
| Check alarms              | *Out of bounds* red. All yellow/green                                                                                                                                                                                                                                                                                                                                                 | <input type="text"/>                | <input checked="" type="checkbox"/> |

General Comments

Check light and Airmar on return.  
JRF float installed.  
Wave Glider with deployment saddle 485 lbs, ~24 hr test tank float check we have much more reserve floatation now!

Technician Signature:

Note: Once vehicle is launched the following tasks must be completed

1. Clear alarms

2. Log vehicle modifications in notebook

3. Vehicle on mission

4. Create *LAUNCHED* comment into WGMS

5. Upload photos to gallery website with album name: *YYYY-MM-DD VehicleName*

Submit

Print

Clear User Input