

SV3-121: SV3 Pre-Launch Checklist

Status Checklist Config Operate Setup Help

Readme

SV3 Pre-Launch Checklist

|         |                                     |              |                          |
|---------|-------------------------------------|--------------|--------------------------|
| Date    | 2022-09-29T00:13:03.259Z            | Glider Name  | SV3-1531399927 (SV3-121) |
| Tech(s) | cwahl                               | Organization | MBARI                    |
| Project | Blue Whale Observatory Bioacoustics | Ship/Op Area | Paragon MB               |

Software Information

|                 |                                                                                                                                                            |
|-----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Regulus Version | SV3-121, sn=1531399927, Running Regulus 3.2.2, software version of 2019-12-03T23:58:34Z, production build 35, sv3, SOMDM3730-31-1880AKIR-A, (1.2.3) secure |
| Plugins         | Running: AirmarWeather, GPSasRudderCompass, LogAlarmReporter, PortForwarder, RudderParametersManager, ThrusterAdjuster, Winch                              |

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 (11m51.689s), virtualDevice=true, Requested by: pilotRequest, powerThreadActive=false (no internet connectivity)                                                                                                                                                                                                                                                                                                                                                 | Cell modem still not working | <input type="checkbox"/>            |
| WGMS Iridium               | IMEI:300434060771430, starts=1, r=1, w=29, sessionAttempts=35, sessionErrs=5, wErrs=0, rErrs=0, cErrs=0, 10m ss avg=4.0 (i=5), 1 queued msgs state=TALKING, sent=29, lastTx=3.653s, avgTxSize=97.9B, totalTx=2.771kB, received=1, lastRx=10m33.582s, totalRx=0.024kB, powerState=ON (11m23.494s), virtualDevice=true, Requested by: iridiumModem, powerThreadActive=false                                                                                                                                                       |                              | <input checked="" type="checkbox"/> |
| Vehicle telemetry received | available channels=[tcpChannel, virtualRelay, iridiumModem]2 blocked messages, averageMessageQueueRate=18.753s, sent=29, totalBytesSent=2.771kB, received=1, totalBytesReceived=0.024kB, lastRx=10m33.607s, 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=1, #handled=1, lastRx=rx=2022-09- |                              | <input checked="" type="checkbox"/> |
| Location                   | Using GPSUblox, declination=12.745758, failoverCounter=2, timeLastSwitchedGps=2022-09-29T00:03:33Z, clockDt=5.624s                                                                                                                                                                                                                                                                                                                                                                                                              |                              | <input checked="" type="checkbox"/> |
| Tracker telemetry received | Battery (Volts)<br>Report Rate                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 15.5 volts<br>4 hours        | <input checked="" type="checkbox"/> |

Configuration

| Item/Procedure                      | Readings            | Specifications                      | Comments | Initials                            |
|-------------------------------------|---------------------|-------------------------------------|----------|-------------------------------------|
| Tracker WGMS name                   | Hansen Tracker      |                                     |          | <input checked="" type="checkbox"/> |
| (Optional) Second Tracker Name      |                     |                                     |          | <input type="checkbox"/>            |
| Drybox WGMS name                    | SV3-121 MBARI Spare |                                     |          | <input checked="" type="checkbox"/> |
| Float name                          | Wave Glider Hansen  |                                     |          | <input checked="" type="checkbox"/> |
| Glider name                         | Hansen              |                                     |          | <input checked="" type="checkbox"/> |
| Umbilical Length                    | 4m                  |                                     |          | <input checked="" type="checkbox"/> |
| G1                                  |                     |                                     |          | <input type="checkbox"/>            |
| G2                                  |                     |                                     |          | <input type="checkbox"/>            |
| G3                                  | APU                 |                                     |          | <input checked="" type="checkbox"/> |
| T1                                  |                     |                                     |          | <input type="checkbox"/>            |
| D1                                  |                     |                                     |          | <input type="checkbox"/>            |
| S1                                  |                     |                                     |          | <input type="checkbox"/>            |
| S2                                  |                     |                                     |          | <input type="checkbox"/>            |
| S3                                  |                     |                                     |          | <input type="checkbox"/>            |
| S4                                  | Airmar              |                                     |          | <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 |          |          | <input checked="" type="checkbox"/> |

|                             |          |    |  |  |
|-----------------------------|----------|----|--|--|
|                             | 1710.087 | // |  |  |
| Solar Power Indicators: > 0 | 9.073    | // |  |  |
|                             | 0.0      | // |  |  |
|                             | 13.523   | // |  |  |
|                             | 14.772   | // |  |  |

| Item/Procedure                                                                                | Readings             |                  |                |                              |          |          |  |
|-----------------------------------------------------------------------------------------------|----------------------|------------------|----------------|------------------------------|----------|----------|--|
| Domain Info                                                                                   | AMPS Hardware Status | Temperature (°C) | Pressure (kPa) | Hardware Uptime              | Comments | Initials |  |
| Domain_Name=Host, Node=1, HW_SerNum=0x474850072038384d00390021 On=Y                           | OK //                | 24.2 //          | 120.4 //       | Uptime: 0 days, 00:13:53 //  |          |          |  |
| Domain_Name=Bat-0x474850072038384d00380042, Node=3, HW_SerNum=0x474850072038384d00380042 On=Y | OK //                | 20.8 //          | 111.5 //       | Uptime: 20 days, 23:31:39 // |          |          |  |
| Domain_Name=Thrudder-2, Node=4, HW_SerNum=0x3437470330383638001f0033 On=Y                     | OK //                | 20.0 //          | 265.6 //       | Uptime: 0 days, 00:06:11 //  |          |          |  |

Mechanical Checks

|       | Item/Procedure                    | Specifications                                            | Comments                                     | Initials |
|-------|-----------------------------------|-----------------------------------------------------------|----------------------------------------------|----------|
| Float | Wet-mates connected/lubed         | 3M Silicone Lubricant Spray 3M ID No. 62-4678-4930-3      |                                              |          |
|       | Connector covers secure           |                                                           |                                              |          |
|       | Drybox secure                     | Wiggle test                                               |                                              |          |
|       | Contact info secure               |                                                           |                                              |          |
|       | Hull                              | Inspect, note condition                                   | new ding on hull, get repaired in the winter |          |
|       | Skeg/Fin                          | Secure                                                    |                                              |          |
| Sub   | Hardware secure                   |                                                           |                                              |          |
|       | Umbilical visual inspection       | Free of voids/defects                                     |                                              |          |
|       | Umbilical ribbon cable inspection |                                                           |                                              |          |
|       | Roll pins inserted                | Flush with surface                                        |                                              |          |
|       | Wings                             | Hardware secure with Loctite, lock nuts, and seizing wire |                                              |          |
|       | Thrudder                          | Hardware secure                                           |                                              |          |

Vehicle Functionality

| Item/Procedure              | Readings                                                                                                                                                                                                                     | Specifications                           | Comments                  | Initials |
|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|---------------------------|----------|
| Thruster Spin               | 442.0 //                                                                                                                                                                                                                     | Spins freely, slow and fast speeds       |                           |          |
| Rudder Range of Motion      |                                                                                                                                                                                                                              | Rudder moves freely and smoothly         |                           |          |
| Rudder right, left, center  | Rudder(2022-09-29T00:12:59.870Z,desiredHeading=354.1,compass=19,rack=-14.9,post=-12.3rudderStat                                                                                                                              | Right, Left, Center                      |                           |          |
| Thrudder Compass Correction | Thrudder compass is corrected //                                                                                                                                                                                             | recommended NOT corrected                | LR says that this is okay |          |
| Fixed heading test (spin)   | 180 //                                                                                                                                                                                                                       | Avoidance Off, Note Heading Used         |                           |          |
| Waypoint course test (spin) | 21 //                                                                                                                                                                                                                        | Avoidance Off, Note Waypoint Course Used |                           |          |
| Buoy Release Mechanism      | device is disarmed, deviceState=OFF, deployCounter=0, waitTime=1m30s, powerState=OFF (9m23.692s), ampsPower=false, powerThreadActive=false //                                                                                | Catch release buoy by hand               |                           |          |
| Octopus Cable 01            | OK //                                                                                                                                                                                                                        | Must Pass                                |                           |          |
| Octopus Cable 02            | OK //                                                                                                                                                                                                                        | Must Pass                                |                           |          |
| AIS Status                  | lastSeen=MMSI 338415000 (RACHEL CARSON). Pos=36.802175, -121.787207. t=70:0:MOORED, 2022-09-29T00:12:55.490Z, lengthErrs=0, latlonErrs=0, broadcastCount=19, lastRx=12.360s, numberObserved=4, averageRxRateMillis=7.510s // | If in harbor, must see MMSI              |                           |          |
| Photo Document              |                                                                                                                                                                                                                              |                                          |                           |          |

Vehicle Communication and Telemetry

| Item/Procedure            | Readings / Specifications                                                                                                                                                                                                                                                                                                                                                             | Comments | Initials |
|---------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|----------|
| WX reporting              | Temp=18.0°C, Press=1017.3mb, Wind Speed=2.05kn, Wind Dir=202.8°. Heading=358.9° //                                                                                                                                                                                                                                                                                                    |          |          |
| UBLOX GPS                 | 2022-09-29T00:13:13Z@36.8023888,-121.7871363,lastRx=0.356s, quality=100, timeout=1m, nmeaValid=true, clockDt=5.094s, lastValidFix=2022-09-29T00:13:13Z@36.8023888,-121.7871363, gpsWatchdogFailureCounter=0, ggaQCount:2=300,numSat:sma=9.76,std=0.43,min=9.00,max=10.00,n=300,hdop:sma=0.92,std=0.06,min=0.82,max=1.13,n=300,altitude:sma=3.77,std=1.68,min=0.40,max=6.30,n=300 //   |          |          |
| Airmar GPS                | 2022-09-29T00:13:12.500Z@36.80243,-121.787175,lastRx=0.922s, quality=80, timeout=5m, nmeaValid=true, clockDt=4.389s, lastValidFix=2022-09-29T00:13:12.500Z@36.80243,-121.787175, gpsWatchdogFailureCounter=0, ggaQCount:2=300,numSat:sma=9.00,std=0.00,min=9.00,max=9.00,n=300,hdop:sma=0.94,std=0.08,min=0.90,max=1.10,n=300,altitude:sma=11.66,std=5.05,min=3.80,max=24.60,n=300 // |          |          |
| Torpedo GPS               | Not Available! //                                                                                                                                                                                                                                                                                                                                                                     |          |          |
| Water speed readings      | Unknown speed; ncc=0, nci=0, tec=0, aip=0.00 //                                                                                                                                                                                                                                                                                                                                       |          |          |
| Obstacle Avoidance Status | Enabled //                                                                                                                                                                                                                                                                                                                                                                            |          |          |
| Check alarms              | *Out of bounds" red. All yellow/green                                                                                                                                                                                                                                                                                                                                                 |          |          |

General Comments

Blue Whale Observatory Bioacoustics deployment  
WG Hansen was hit during its last deployment, ding number three!

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