

Readme

SV3 Pre-Launch Checklist

|         |                          |              |                        |
|---------|--------------------------|--------------|------------------------|
| Date    | 2024-12-12T00:38:46.284Z | Glider Name  | SV3-466563798(SV3-110) |
| Tech(s) | cwahi                    | Organization | MBARI                  |
| Project | MBTS                     | Ship/Op Area | Paragon MB             |

Software Information

|                 |                                                                                                                                                              |
|-----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Regulus Version | SV3-110, sn=466563798, 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, GPSasRudderCompass, LogAlarmReporter, RudderParametersManager, ThrusterAdjuster Not running: PortForwarder, ThrudderDiagnosticsFixer |

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=OFF (7h16m43.805s), virtualDevice=true, powerThreadActive=false (no internet connectivity)                                                                                                                                                                                                                                                                                                                                                                                                            | Still not working | <input type="checkbox"/>            |
| WGMS Iridium               | IMEI:300434060354880, starts=1, r=14, w=419, sessionAttempts=473, sessionErrs=46, wErrs=0, rErrs=0, cErrs=0, 10m ss avg=4.4 (i=5), 0 queued msgs state=TALKING, sent=419, lastTx=9.126s, avgTxSize=122.8B, totalTx=48.666kB, received=14, lastRx=8m37.927s, avgRxSize=41.4B, totalRx=0.540kB, powerState=ON (7h16m14.348s), virtualDevice=true, Requested by: iridiumModem, powerThreadActive=false                                                                                                                                                               |                   | <input checked="" type="checkbox"/> |
| Vehicle telemetry received | available channels=[tcpChannel, virtualRelay, iridiumModem]439 blocked messages, totalMessagesDiscarded=433, averageMessageQueueRate=11.500s, sent=419, totalBytesSent=48.666kB, received=14, totalBytesReceived=0.540kB, lastRx=8m37.974s, 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=14, #handled=14, lastRx=rx=2024-12- |                   | <input checked="" type="checkbox"/> |
| Location                   | Using GPSUblox, declination=12.535644, failoverCounter=1, timeLastSwitchedGps=2024-12-11T17:24:21Z, clockDt=3.582s                                                                                                                                                                                                                                                                                                                                                                                                                                                |                   | <input checked="" type="checkbox"/> |
| Tracker telemetry received | Battery (Volts)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 15.9 volts        | <input checked="" type="checkbox"/> |
|                            | Report Rate                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 4 hours           |                                     |

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               | SV3-110 Wave Glider Tiny |                |          | <input checked="" type="checkbox"/> |
| Float name                     | Tiny Copper version      |                |          | <input checked="" type="checkbox"/> |
| Glider name                    | Tiny v200                |                |          | <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 3? with MF DAT   |                |          | <input checked="" type="checkbox"/> |
| S2                             | GPCTD plus DO            |                |          | <input checked="" type="checkbox"/> |
| S3                             | pCO2 plus pH             |                |          | <input checked="" type="checkbox"/> |

|                                     |                   |                                     |             |                                     |
|-------------------------------------|-------------------|-------------------------------------|-------------|-------------------------------------|
| S4                                  | <div>Airmar</div> |                                     | <div></div> | <input checked="" type="checkbox"/> |
| Event definitions                   |                   | Compare against standard list       | <div></div> | <input checked="" type="checkbox"/> |
| Vehicle and tracker op area defined | <div></div>       | Note area name(s) and enable alarms | <div></div> | <input checked="" type="checkbox"/> |
| Escalation list created/populated   |                   |                                     | <div></div> | <input checked="" type="checkbox"/> |

Vehicle Status

| Item/Procedure              | Readings |             | Comments                        | Initials                            |
|-----------------------------|----------|-------------|---------------------------------|-------------------------------------|
| Battery [Wh] > 700 Wh       | 678.584  | <div></div> | <div>On charger overnight</div> | <input checked="" type="checkbox"/> |
| Solar Power Indicators: > 0 | 0.0      | <div></div> | <div></div>                     | <input checked="" type="checkbox"/> |
|                             | 0.0      | <div></div> |                                 |                                     |
|                             | 0.517    | <div></div> |                                 |                                     |
|                             | 0.615    | <div></div> |                                 |                                     |

| Item/Procedure                                                                                    | Readings             |                  |                   |                                      |             | Initials                            |
|---------------------------------------------------------------------------------------------------|----------------------|------------------|-------------------|--------------------------------------|-------------|-------------------------------------|
| Domain Info                                                                                       | AMPS Hardware Status | Temperature (°C) | Pressure (kPa)    | Hardware Uptime                      | Comments    | Initials                            |
| Domain_Name=Host, Node=1, HW_SerNum=0x32385119353634330055004a On=Y                               | OK <div></div>       | 26.0 <div></div> | 115.2 <div></div> | Uptime: 0 days, 07:22:17 <div></div> | <div></div> | <input checked="" type="checkbox"/> |
| Domain_Name=Thruder-2, Node=3, HW_SerNum=0x474850052036384d0057002b On=Y                          | OK <div></div>       | 18.4 <div></div> | 242.4 <div></div> | Uptime: 0 days, 07:14:12 <div></div> | <div></div> | <input checked="" type="checkbox"/> |
| Domain_Name=PyIdInt-0x33335114373330300043001a, Node=5, HW_SerNum=0x33335114373330300043001a On=Y | OK <div></div>       | 20.7 <div></div> | 111.1 <div></div> | Uptime: 0 days, 00:29:20 <div></div> | <div></div> | <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      | <div></div> | <input checked="" type="checkbox"/> |
|       | Connector covers secure           |                                                           | <div></div> | <input checked="" type="checkbox"/> |
|       | Drybox secure                     | Wiggle test                                               | <div></div> | <input checked="" type="checkbox"/> |
|       | Contact info secure               |                                                           | <div></div> | <input checked="" type="checkbox"/> |
|       | Hull                              | Inspect, note condition                                   | <div></div> | <input checked="" type="checkbox"/> |
|       | Skeg/Fin                          | Secure                                                    | <div></div> | <input checked="" type="checkbox"/> |
| Sub   | Hardware secure                   |                                                           | <div></div> | <input checked="" type="checkbox"/> |
|       | Umbilical visual inspection       | Free of voids/defects                                     | <div></div> | <input checked="" type="checkbox"/> |
|       | Umbilical ribbon cable inspection |                                                           | <div></div> | <input checked="" type="checkbox"/> |
|       | Roll pins inserted                | Flush with surface                                        | <div></div> | <input checked="" type="checkbox"/> |
|       | Wings                             | Hardware secure with Loctite, lock nuts, and seizing wire | <div></div> | <input checked="" type="checkbox"/> |
|       | Thruder                           | Hardware secure                                           | <div></div> | <input checked="" type="checkbox"/> |

Vehicle Functionality

| Item/Procedure              | Readings                                                                                                                                                                                                                                   | Specifications                           | Comments                                                         | Initials                            |
|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|------------------------------------------------------------------|-------------------------------------|
| Thruster Spin               | 438.0 <div></div>                                                                                                                                                                                                                          | Spins freely, slow and fast speeds       | <div></div>                                                      | <input checked="" type="checkbox"/> |
| Rudder Range of Motion      |                                                                                                                                                                                                                                            | Rudder moves freely and smoothly         | <div></div>                                                      | <input checked="" type="checkbox"/> |
| Rudder right, left, center  | Rudder(2024-12-12T00:38:45.658Z,desiredHeading=350,compass=15.9,rack=-11.4,post=-12.5rudderStat <div></div>                                                                                                                                | Right, Left, Center                      | <div></div>                                                      | <input checked="" type="checkbox"/> |
| Thruder Compass Correction  | Thruder compass is corrected                                                                                                                                                                                                               | recommended NOT corrected                | LR says that this is okay                                        | <input type="checkbox"/>            |
| Fixed heading test (spin)   | 180 <div></div>                                                                                                                                                                                                                            | Avoidance Off, Note Heading Used         | <div></div>                                                      | <input checked="" type="checkbox"/> |
| Waypoint course test (spin) | 36.797, -121.847 <div></div>                                                                                                                                                                                                               | Avoidance Off, Note Waypoint Course Used | <div></div>                                                      | <input checked="" type="checkbox"/> |
| Buoy Release Mechanism      | device is disarmed, deviceState=OFF, deployCounter=0, waitTime=1m30s, powerState=OFF (7h14m14.801s), ampsPower=false, powerThreadActive=false                                                                                              | Catch release buoy by hand               | <div></div>                                                      | <input checked="" type="checkbox"/> |
| Octopus Cable 01            | OK                                                                                                                                                                                                                                         | Must Pass                                | <div></div>                                                      | <input checked="" type="checkbox"/> |
| Octopus Cable 02            | Failure                                                                                                                                                                                                                                    | Must Pass                                | Everything is working, will restart vehicle and see if it works? | <input type="checkbox"/>            |
| AIS Status                  | lastSeen=MMSI 368067680 (WILLIAM JOY). Pos=36.802235, -121.785220. t=37:0:NOT_DEFINED, 2024-12-12T00:38:51.469Z, lengthErrs=0, latLonErrs=0, broadcastCount=2092, lastRx=2.232s, numberObserved=14, averageRxRateMillis=1.251s <div></div> | If in harbor, must see MMSI              | <div></div>                                                      | <input checked="" type="checkbox"/> |
| Photo Document              |                                                                                                                                                                                                                                            |                                          | <div></div>                                                      | <input checked="" type="checkbox"/> |

Vehicle Communication and Telemetry

| Item/Procedure | Readings / Specifications                                                                  | Comments    | Initials                            |
|----------------|--------------------------------------------------------------------------------------------|-------------|-------------------------------------|
| WX reporting   | Temp=12.3°C, Press=1016.0mb, Wind Speed=3.25kn, Wind Dir=281.4°. Heading=24.8° <div></div> | <div></div> | <input checked="" type="checkbox"/> |

|                           |                                                                                                                                                                                                                                                                                                                                                                                      |                                              |  |                                     |
|---------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|--|-------------------------------------|
| UBLOX GPS                 | 2024-12-12T00:38:57Z@36.8024212,-121.7871472,lastRx=0.185s, quality=100, timeout=1m, nmeaValid=true, clockDt=3.259s, lastValidFix=2024-12-12T00:38:57Z@36.8024212,-121.7871472, gpsWatchdogFailureCounter=0, ggaQCount:2=300,numSat:sma=11.73,std=0.44,min=11.00,max=12.00,n=300,hdop:sma=0.79,std=0.01,min=0.77,max=0.80,n=300,altitude:sma=0.74,std=0.61,min=-1.20,max=2.00        | <div><div></div><div></div><div></div></div> |  | <input type="checkbox"/>            |
| Airmar GPS                | 2024-12-12T00:38:56.700Z@36.8024217,-121.7871383,lastRx=0.603s, quality=80, timeout=5m, nmeaValid=true, clockDt=2.887s, lastValidFix=2024-12-12T00:38:56.700Z@36.8024217,-121.7871383, gpsWatchdogFailureCounter=0, ggaQCount:2=300,numSat:sma=11.00,std=0.00,min=11.00,max=11.00,n=300,hdop:sma=0.80,std=0.00,min=0.80,max=0.80,n=300,altitude:sma=-1.77,std=0.44,min=-2.50,max=NaN | <div><div></div><div></div><div></div></div> |  | <input checked="" type="checkbox"/> |
| Torpedo GPS               | Not Available!                                                                                                                                                                                                                                                                                                                                                                       | //                                           |  | <input checked="" type="checkbox"/> |
| Water speed readings      | Unknown speed; ncc=0, nci=0, tec=0, aip=0.00                                                                                                                                                                                                                                                                                                                                         | //                                           |  | <input checked="" type="checkbox"/> |
| Obstacle Avoidance Status | Disabled                                                                                                                                                                                                                                                                                                                                                                             | //                                           |  | <input checked="" type="checkbox"/> |
| Check alarms              | "Out of bounds" red. All yellow/green                                                                                                                                                                                                                                                                                                                                                |                                              |  | <input checked="" type="checkbox"/> |

General Comments

Last deployment of 2024!

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