Sonardyne

Marksman & Ranger 2 Release Notes

Release Notes 6.04.05

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Contents

6.04.05

Release Summary

From 6.04.00 the range of Ranger 2 products has been simplified. Existing dongles will continue to allow the old variants, but dongle updates may show a different product name, with extra features enabled. See TB22-002 for details of the changes.

This release may not be suitable for Mini Ranger 2 HF users who use LRT transponders. An issue has been reported that it may not be possible to release these transponders. This issue is being investigated and will be addressed in the next release.

Hardware

The following PC specifications are required as a minimum:

Item	Minimum Specification	Recommended Specification
CPU	i5 2.8GHz	i7 2.8GHz
Memory	8 GB RAM	8 GB RAM
Harddisk	240 GB SSD or hard disk	500 GB SSD
Graphics	32-bit colour, Direct-X V10 or later	32-bit colour, Direct-X V10 or later
Monitor Resolution	1280 x 1024	1920 x 1080
USB	4 USB Ports	4 USB Ports
Operating System	Windows 10 Professional x64	Windows 10 Professional x64

Firmware

The following instrument firmware versions have been tested with this software version. As a minimum, these firmware versions must be installed in each component when used with this version:

Instrument	Firmware Version
Compatt 6	3.13.01.03
AvTrak 6	3.13.01.03
Nano	5.13.00.08
RT6-1000	1.00.07.02
RT6-3000	1.00.05.04
RT6-6000	1.00.05.04
SST6	1.0.4.2
HPT	5.00.01.09
NSH	2.0.3.107
ESH	4.0.4
MESH	4.0.4
Lodestar	3.02.01.5003 (DP INS + OPT USBL)

Marksman & Ranger 2 Release Notes

New Features

Summary

Functional Area	Ref	Description
Devices	MMR2-34580	Automatic GyroHPT detection
Devices	MMR2-34605	Add a deployment machine status telegram
Support	MMR2-34582	Force databases in CEF
Support	MMR2-34584	Set default MultiUser connection 0 (Disabled)
Tools	MMR2-16163, MMR2-34547, MMR2-34555	Create a 6G Modem port
Tools	MMR2-34581	Make PAN port 'Use wake tone' a numerical selector
Tracking	MMR2-34504	Provide the ability to track from any telemetry.
Tracking	MMR2-34505	Robotics: Add SPOS update every Nth cycle in normal ranging.
Tracking	MMR2-34577	Protect against depth aiding a too close to the vertical
UI	MMR2-34576	4K monitor support for MM/R2
All areas	MMR2-34399, MMR2-34510, MMR2-34523, MMR2-34536, MMR2-34544, MMR2-34546, MMR2-34548, MMR2-34552, MMR2-34565, MMR2-34566, MMR2-34569, MMR2-34571, MMR2-34572, MMR2-34586, MMR2-34587, MMR2-34589, MMR2-34590, MMR2-34593, MMR2-34568, MMR2-34570, MMR2-34557, MMR2-34594, MMR2-34602, MMR2-34612, MMR2-34620	Performance and security

MMR2-34580   Automatic GyroHPT detection.

When adding a 'Lodestar Gyro HPT' automatically detect whether the added instrument is a combined unit in a single housing, or whether it is formed from separate devices.

MMR2-34605   Add a deployment machine status telegram

A new $PSONDM telegram has been created to publish the state of the Folla Tech deployment machine.

MMR2-34582   Force databases in CEF

A problem with access permissions to the database files has been resolved that was preventing database files being included in support files.

MMR2-34584   Set default MultiUser connection 0 (Disabled)

Updated default for multiuser mode to off, so that operators can turn it on when required, without cluttering the UI for all users.

MMR2-16163, MMR2-34547, MMR2-34555   Create a 6G Modem port

A new port has been added to allow Origin ADCP, and other modem users to harvest data through the HPT without having rewire the Ranger 2 system.

MMR2-34581   Make PAN port 'Use wake tone' a numerical selector

Support for indices of all wake-up tones and signals.

MMR2-34504   Provide the ability to track from any telemetry.

When using the Robotics pack positions are generated from SPOS telemetry replies. Positions are now computed from all telemetry commands to minimise gaps between position updates.

MMR2-34505   Robotics: Add SPOS update every Nth cycle in normal ranging.

In situations where telemetry is difficult it is now possible to range using normal navigation signals, and then intersperse an SPOS every Nth update to minimise reverberation in the water column.
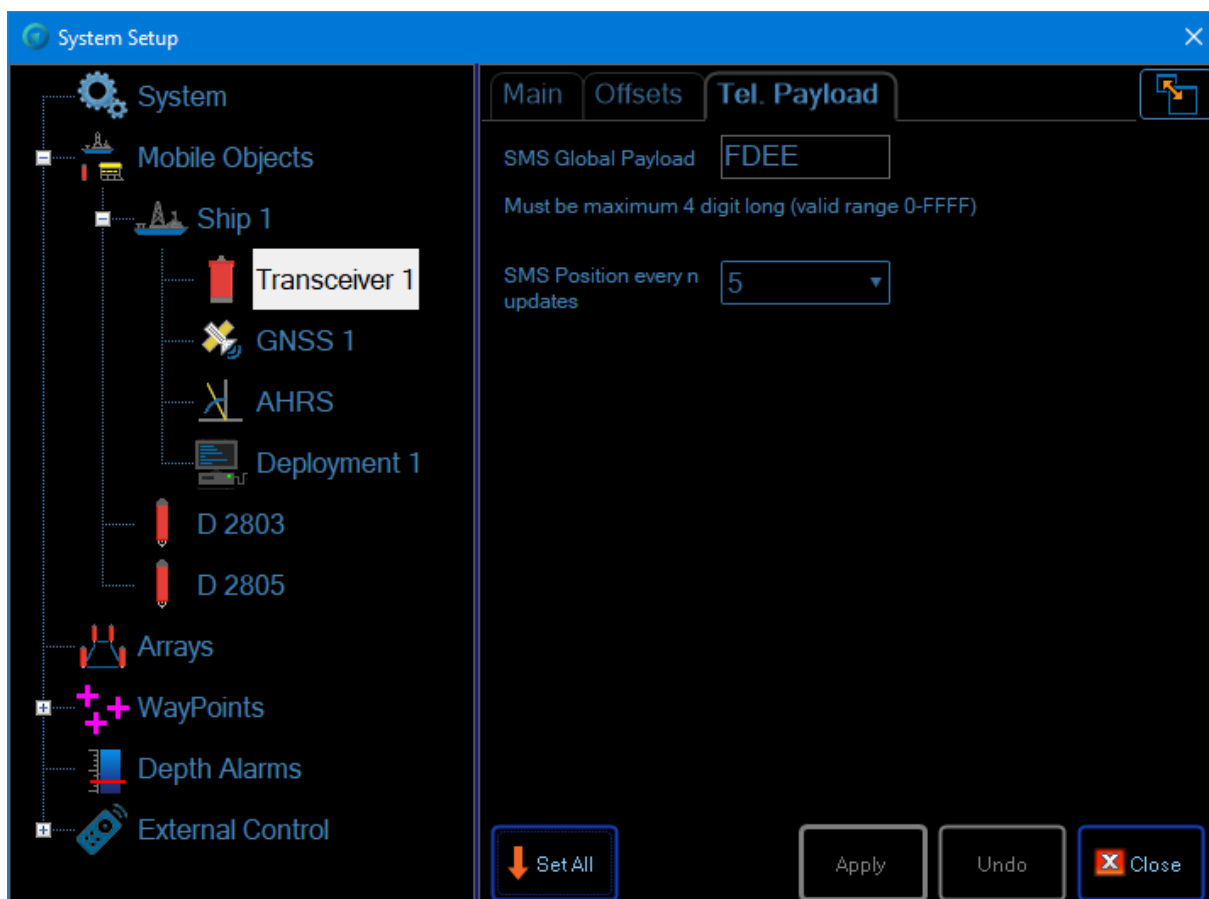
MMR2-34577   **Protect against depth aiding a too close to the vertical**

In situations where the beacon is under the vessel depth aiding can conflict with the measured acoustic range and cause unstable positioning. This change gradually reduces the weight given to the depth aiding measurement as the vessel approaches the beacon and restores the weight as it moves away. Depth aiding can now be left enabled for times where it might be needed without concern about it affecting tracking when passing close to the beacon.

MMR2-34576   **4K monitor support for MM/R2**

Corrected issue where text was badly scaled when using higher resolution monitors.

Bug Fixes

For more details on any of the fixes below please contact Sonardyne customer support

Functional Area	Ref	Description
Devices	MMR2-34481, MMR2-34554	AODC tracking settings
Devices	MMR2-34558	Remove MF SST and SST6 from Ranger 2 Mini HF beacon list
Devices	MMR2-34562	No wake-ups on INACTIVE SUB channels
Tools	MMR2-34617	Admittance test could fail if phase cal was scheduled.
Tools	MMR2-34553	Corrected pinger tool frequencies
Tools	MMR2-34567	[CASIUS] When importing a CAS2 file remove GNSS records with duplicate timestamps
Tracking	MMR2-34591	At long range (6000m) software not waiting long enough for beacon responses.
Tracking	MMR2-34606	'Get All' caused transceiver rx gain revert to 'Auto'
UI	MMR2-34522	Ranger 2 v6.04 would not import a vessel shape

6.04.04

Release Summary

From 6.04.00 the range of Ranger 2 products has been simplified. Existing dongles will continue to allow the old variants, but dongle updates may show a different product name, with extra features enabled. See TB22-002 for details of the changes.

Mini Ranger 2 and Micro Ranger 2 users with an older ESH (prior to serial number 324386-002) need a hardware update to their ESH to continue support of the latest versions of Ranger 2 software. Contact sales representative for more details.

Hardware

The following PC specifications are required as a minimum:

Item	Minimum Specification	Recommended Specification
CPU	i5 2.8GHz	i7 2.8GHz
Memory	8 GB RAM	8 GB RAM
Harddisk	240 GB SSD or hard disk	500 GB SSD
Graphics	32-bit colour, Direct-X V10 or later	32-bit colour, Direct-X V10 or later

Item	Minimum Specification	Recommended Specification
Monitor Resolution	1280 x 1024	1920 x 1080
USB	4 USB Ports	4 USB Ports
Operating System	Windows 10 Professional x64	Windows 10 Professional x64

Firmware

The following instrument firmware versions have been tested with this software version. As a minimum, these firmware versions must be installed in each component when used with this version:

Instrument	Firmware Version
Compatt 6	3.13.01.03
AvTrak 6	3.13.00.04
Nano	5.13.00.07
RT6-1000	1.00.07.02
RT6-3000	1.00.05.04
RT6-6000	1.00.05.04
SST6	1.0.4.2
HPT	5.00.01.07
NSH	2.0.3.107
ESH	4.0.4
MESH	4.0.4
Lodestar	3.02.01.1019 (DP INS + OPT USBL)

New Features

Summary

Functional Area	Ref	Description
Deployment Machine	MMR2-34507	Make the alarm on vessel speed with pole down more robust.
UI	MMR2-34508	Telemetry Tracking: No indication of what is happening at start up if no reply received
Support	MMR2-34479	Please add a device comms log for the Lodestar
Support	MMR2-34503	Serial number and Build data into CASIUS
Support	MMR2-34527	Please tie the name of the LS part of a GyroHPT to the tcvr name
Security	MMR2-34514, MMR2-34529, MMR2-34536	Library and Security updates.

MMR2-34507   **Make the alarm on vessel speed with pole down more robust.**

The current implementation of the vessel speed alarm uses the pole down limit switch to indicate the pole is down. This has the problem that if the pole is not all the way down, or the limit switch is badly aligned then the alarm didn't go off. The logic has now been changed to be a 'failsafe' implementation – the alarm will be triggered whenever the speed is over the limit when the pole is either not fully up, or the gate vale is not closed. In addition, a warning is given if an attempt is made to close Ranger 2 while the pole is not known to be up.

MMR2-34508   **Telemetry Tracking: No indication of what is happening at start up if no reply received**

While telemetry tracking, prior to the first successful fix there was no visual indication of what the system was doing. The chart now shows failed, as well as successful ranges.

MMR2-34479   **Please add a device comms log for the Lodestar.**

Currently an optimised USBL captures the Lodestar comms only as part of the INS BIN files, this makes it difficult to align Lodestar and other comms. A file of decoded messages is now produced that is automatically added to a CEF when generating it for support.

MMR2-34503   **Serial number and Build data into CASIUS.**

It can be difficult when reviewing a customer CASIUS report to determine the precise details of the transceiver and the carrier frequency used. Adding the serial number allows the details to be transceiver, admittance data, and any repair history to be looked up on the manufacturing system database.

MMR2-34527   **Please tie the name of the LS part of a GyroHPT to the tcvr name.**

In an optimised USBL system the Lodestar part of the gyroUSBL tcvr does not have an exposed name. In the background the instrument received a name, but this can be difficult to associate with the transceiver part of the instrument in cases where there are multiples transceivers. The Lodestar part now receives the same name as the transceiver with 'LS' appended. This makes CASIUS calibration of multiple gyroUSBLs safer.

MMR2-34514, MMR2-34529, MMR2-34536   **Library and Security updates.**

Several updates for reasons of obsolescence or security updates have been made to third party libraries used by Ranger 2.

Bug Fixes

For more details on any of the fixes below please contact Sonardyne customer support

Functional Area	Ref	Description
UTC Time	MMR2-34515, MMR2-34535	mR2 UTC sync alternates between ESH and EXT
Tools	MMR2-34516	AHRS Calibration Tool: Please correct 'Preview' screen display of heading.
User Experience	MMR2-34328	Text display fails to convert range to feet in US Units
Support	MMR2-34541, MMR2-34542	UsageCounters causing resource issues

6.04.03

Release Summary

From 6.04.00 the range of Ranger 2 products has been simplified. Existing dongles will continue to allow the old variants, but dongle updates may show a different product name, with extra features enabled. See TB22-002 for details of the changes.

Mini Ranger 2 and Micro Ranger 2 users with an older ESH (prior to serial number 324386-002) need a hardware update to their ESH to continue support of the latest versions of Ranger 2 software. Contact sales representative for more details.

Hardware

The following PC specifications are required as a minimum:

Item	Minimum Specification	Recommended Specification
CPU	i5 2.8GHz	i7 2.8GHz
Memory	8 GB RAM	8 GB RAM
Harddisk	240 GB SSD or hard disk	500 GB SSD
Graphics	32-bit colour, Direct-X V10 or later	32-bit colour, Direct-X V10 or later
Monitor Resolution	1280 x 1024	1920 x 1080
USB	4 USB Ports	4 USB Ports
Operating System	Windows 10 Professional x64	Windows 10 Professional x64

Firmware

The following instrument firmware versions have been tested with this software version. As a minimum, these firmware versions must be installed in each component when used with this version:

Instrument	Firmware Version
Compatt 6	3.13.01.03
AvTrak 6	3.13.00.04
Nano	5.13.00.07
RT6-1000	1.00.07.02
RT6-3000	1.00.05.04
RT6-6000	1.00.05.04
SST6	1.0.4.2
HPT	5.00.01.07
NSH	2.0.3.107
ESH	4.0.4
MESH	4.0.4
Lodestar	3.02.01.1019 (DP INS + OPT USBL)

New Features

Summary

Functional Area	Ref	Description
Remote Control	MMR2-34533	Add an appsetting to control availability of Async status messages on remote control interface
Devices	MMR2-34532	Incomplete PSXN telegram is not parsing/decoding

MMR2-34533   Add an appsetting to control availability of Async status messages on remote control interface

Added an application setting to manually disable all async messages.

MMR2-34524   Incomplete PSXN telegram is not parsing/decoding

Workaround for a Seatex MRU telegram with all fields blank except the pitch and roll..

6.04.02

Release Summary

From 6.04.00 the range of Ranger 2 products has been simplified. Existing dongles will continue to allow the old variants, but dongle updates may show a different product name, with extra features enabled. See TB22-002 for details of the changes.

Mini Ranger 2 and Micro Ranger 2 users with an older ESH (prior to serial number 324386-002) need a hardware update to their ESH to continue support of the latest versions of Ranger 2 software. Contact sales representative for more details.

Hardware

The following PC specifications are required as a minimum:

Item	Minimum Specification	Recommended Specification
CPU	i5 2.8GHz	i7 2.8GHz
Memory	8 GB RAM	8 GB RAM
Harddisk	240 GB SSD or hard disk	500 GB SSD
Graphics	32-bit colour, Direct-X V10 or later	32-bit colour, Direct-X V10 or later
Monitor Resolution	1280 x 1024	1920 x 1080
USB	4 USB Ports	4 USB Ports
Operating System	Windows 10 Professional x64	Windows 10 Professional x64

Firmware

The following instrument firmware versions have been tested with this software version. As a minimum, these firmware versions must be installed in each component when used with this version:

Instrument	Firmware Version
Compatt 6	3.13.01.03
AvTrak 6	3.13.00.04
Nano	5.13.00.07
RT6-1000	1.00.07.02
RT6-3000	1.00.05.04
RT6-6000	1.00.05.04
SST6	1.0.4.2
HPT	5.00.01.07
NSH	2.0.3.107
ESH	4.0.4
MESH	4.0.4
Lodestar	3.02.01.1019 (DP INS + OPT USBL)

New Features

Summary

Functional Area	Ref	Description
UI	MMR2-34522	Fix to DXF vessel shape import
Devices	MMR2-34524	Decode of PSXN10 attitude telegram problem

MMR2-34522   Fix to DXF vessel shape import

Fix for a bug that erroneously rejected DXF shape files for customer vessels

MMR2-34524   Decode of PSXN10 attitude telegram problem

Workaround for a Seatex MRU bug whereby seconds since 1970 field can contain a negative value.

6.04.01

Release Summary

From 6.04.00 the range of Ranger 2 products has been simplified. Existing dongles will continue to allow the old variants, but dongle updates may show a different product name, with extra features enabled. See TB22-002 for details of the changes.

Mini Ranger 2 and Micro Ranger 2 users with an older ESH (prior to serial number 324386-002) need a hardware update to their ESH to continue support of the latest versions of Ranger 2 software. Contact sales representative for more details.

Hardware

The following PC specifications are required as a minimum:

Item	Minimum Specification	Recommended Specification
CPU	i5 2.8GHz	i7 2.8GHz
Memory	8 GB RAM	8 GB RAM
Harddisk	240 GB SSD or hard disk	500 GB SSD
Graphics	32-bit colour, Direct-X V10 or later	32-bit colour, Direct-X V10 or later
Monitor Resolution	1280 x 1024	1920 x 1080
USB	4 USB Ports	4 USB Ports
Operating System	Windows 10 Professional x64	Windows 10 Professional x64

Firmware

The following instrument firmware versions have been tested with this software version. As a minimum, these firmware versions must be installed in each component when used with this version:

Instrument	Firmware Version
Compatt 6	3.13.01.03
AvTrak 6	3.13.00.04
Nano	5.13.00.07
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NSH	2.0.3.107
ESH	4.0.4
MESH	4.0.4
Lodestar	3.02.01.1019 (DP INS + OPT USBL)

New Features

Summary

Functional Area	Ref	Description
Robotics	MMR2-34506	Large SMS buffer not serviced when depth aiding is running
Robotics	MMR2-34501	Telemetry Tracking: SMS timeout on no reply too short
OBC	MMR2-34502	OBC beacon reply channel corruption

MMR2-34506   Large SMS buffer not serviced when depth aiding is running

Addition of WB3 depth aiding to Telemetry tracking in V6.04.00 incorrectly blocked servicing of the long buffer in the transponder being tracked. This has been remedied so that it is now possible to transfer user payload messages while depth aiding the telemetry tracking.

MMR2-34501   Telemetry Tracking: SMS timeout on no reply too short

Telemetry tracking timeout logic has been improved to prevent a new telemetry tracking cycle beginning while still waiting for the previous cycle to complete. This improvement reduces the need for the operator to adjust the update rate as the range increases during a dive. The update rate can now be set to the desired rate, and if the range time increases beyond this figure, then tracking will gradually slow down.

MMR2-34502   OBC beacon reply channel corruption

When using older tone based OBC beacons some addresses were not being stored correctly in the job, and so tracking could fail. This has now been resolved.

6.04.00

From 6.04.00 the range of Ranger 2 products has been simplified. Existing dongles will continue to allow the old variants, but dongle updates may show a different product name, but with extra features enabled. See TB22-002 for details of the changes.

6.04.00 will not install/run on Windows 7. For more information on Windows 7 please contact customer support, using the details at the end of these release notes.

Hardware Requirements

Marksman and Ranger 2 have the following computer hardware requirements to run

Item	Minimum Specification	Recommended Specification
CPU	i5 2.8GHz	i7 2.8GHz
Memory	8 GB RAM	8 GB RAM
Harddisk	240 GB SSD or hard disk	500 GB SSD
Graphics	32-bit colour, Direct-X V10 or later	32-bit colour, Direct-X V10 or later
Monitor Resolution	1280 x 1024	1920 x 1080
USB	4 USB Ports	4 USB Ports
Operating System	Windows 10 Professional x64	Windows 10 Professional x64

Firmware

The following instrument firmware versions have been tested with this software version. As a minimum, these firmware versions must be installed in each component when used with this version:

Instrument	Firmware Version
Compatt 6	3.13.01.03
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Nano	5.13.00.07
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NSH	2.0.3.107
ESH	4.0.4
MESH	4.0.4
Lodestar	3.02.01.1019 (DP INS + OPT USBL)

New Features

Summary

Functional Area	Ref	Description
Variants	MMR2-34387	Rearrangement of packs/variants
Tracking	MMR2-24586, MMR2-34193	Please add depth aiding to tracking on Telemetry.
Tracking	MMR2-34235, MMR2-34319	Add ability to depth aid an AUV when on telemetry track
Tracking	MMR2-34325	Range observations using incorrect TAT in SPRINT Filter
Tracking	MMR2-34345	Create option to disable HPT2000, HPT3000 or MRT heading
Tracking	MMR2-34378	Responder should now be an option for Nano 6 beacons
Tracking	MMR2-34386	Prevent use of 17xx addresses
Time	MMR2-34337	Remove PTP from Ranger 2
Support	MMR2-34318	Logger and DAT Tool is not housekeeping log files when it's not run as admin
Support	MMR2-34352	Remove DESKey pre-requisite from DAT installer.
Security	MMR2-34156	Security tool instances
Security	MMR2-34194, MMR2-34195, MMR2-34196, MMR2-34197, MMR2-34198	Library and Security updates
Safety	MMR2-34333	Add ESH watchdog to cut power to transceivers when Ranger 2 not running
Guidance	MMR2-26248	Add ability to export waypoints
Guidance	MMR2-34368	Waypoint import
Devices	MMR2-34322, MMR2-34323, MMR2-34375, MMR2-34382, MMR2-34383	Please add RT 6-6000(LMF) beacon type
Devices	MMR2-34332	Mini Ranger 2: Radian 2 change to support new sensor
Devices	MMR2-34363, MMR2-34364	Add new beacon type for 6G OEM Modem
Devices	MMR2-34384	Add distinct "Avtrack 6 Nano" and "Nano 6" beacon types
Devices	MMR2-34412	Please add an old ESH f/w version alarm
Devices	MMR2-34452	ESH - Change the rules to only re-connect 10 seconds after lack of any reply
Devices	MMR2-34453	ESH - reflect the ESH ClockStatus in the corner of the screen with ESH / EXT
CASIUS	MMR2-32967	Remove excluded data from the after plots

Functional Area	Ref	Description
Installer	MMR2-34293, MMR2-34329, MMR2-34372, MMR2-34470	Updates for V6.04 changes
Manual	MMR2-34377	Update manuals for new V6.04 features

MMR2-34387   Rearrangement of packs/variants

To make choosing the appropriate Ranger 2 variant easier the 'Ranger 2 MF OBC' features and supported beacon types have been merged into the standard 'Ranger 2 USBL' variant and 'Ranger 2 MF OBC' has been retired as a separate variant. Similarly, the features and options of 'Ranger 2 Pro' has been merged into 'Ranger 2 Survey' and 'Ranger 2 Pro' has been retired. Existing Ranger 2 users can continue to use their current variants, and update to the latest software version without any impact.

MMR2-24586 Please add depth aiding to tracking on Telemetry

Depth aiding has been added to telemetry tracking to improve accuracy at high elevations.

MMR2-34325   Range observations using incorrect TAT in SPRINT Filter

A fault that caused position jumps when using CIS telemetry tracking has been resolved.

MMR2-34345   Create option to disable HPT2000, HPT3000 or MRT heading

Added option to prevent Ranger 2 from falling back on magnetic heading if an alternative is not available.

MMR2-34378   Responder should now be an option for Nano 6 beacons

Added responder tracking option for latest Nano 6 beacon.

MMR2-34386   Prevent use of 17xx addresses

Minimise export problems by removing lowest frequency carrier.

MMR2-34337   Remove PTP from Ranger 2

Avoid integration problem caused by mixing different versions of PTP on customer networks.

MMR2-34318   Logger and DAT Tool is not housekeeping log files when it's not run as admin

As a result of changes to run the application in Windows 10 user accounts housekeeping was unable to remove or copy logfiles.

MMR2-34352   Remove DESKey pre-requisite from DAT installer.

Simplify installer so that the data analysis tool can be installed on office machines without installing unnecessary drivers.

MMR2-34156   Security tool instances

Rationalisation to use a common security tool to update security keys across all Sonardyne products.

MMR2-34194 Library and Security updates

Various libraries have been updated, or replaced for Window 10 compatibility, and to enhance the software security. As a result of these change Windows versions prior to Windows 10 can no longer be supported.

MMR2-34333   Add ESH watchdog to cut power to transceivers when Ranger 2 not running

Added a watchdog to the ESH to cut the power to the USBL transceiver when not in use. This is to protect the transceiver from damage in hot weather when not deployed.

MMR2-26248   Add ability to export waypoints

Add ability to export waypoints from Ranger 2 to other Ranger 2 or Fusion 2 systems.

MMR2-34368   Waypoint import

Extend the existing waypoint import to support the newer Fusion 2 file format.

MMR2-34322   Please add RT 6-6000(LMF) beacon type

Support for RT6-6000(LMF) release, and the heavy-duty release frame has been extended to MF Ranger 2 systems.

MMR2-34332   Mini Ranger 2: Radian 2 change to support new sensor

Update to support the latest MEMS sensor.

MMR2-34363 Add new beacon type for 6G OEM Modem

Support for the new 6G OEM modem beacon type with new wideband wakeup signal.

MMR2-34384   Add distinct "Avtrack 6 Nano" and "Nano 6" beacon types

Separate functionality of simple Nano 6 transponder from the Avtrak version used in Robotics pack variants.

MMR2-34412   Please add an old ESH f/w version alarm

Identify whether the ESH f/w in use needs updating.

MMR2-34452   ESH - Change the rules to only re-connect 10 seconds after lack of any reply

Reduce the number of times the ESH gets reset due to delayed responses.

MMR2-34453   ESH - reflect the ESH ClockStatus in the corner of the screen with ESH / EXT

Identify whether the system is synchronised to UTC, or local ESH time.

MMR2-32967 Remove excluded data from the after plots

Previously all observations (including those that had been excluded) were shown on the CASIUS calibration result plots. By default, this data is now not plotted so that the charts auto-zoom to show the result more clearly. If the user wishes to see the excluded observations, then select the 'Plot Rejected Points' option in the 'Engine Settings', and re-process the CASIUS to generate new plots:

Bug Fixes

For more details on any of the fixes below please contact Sonardyne customer support

Functional Area	Ref	Description
Tracking	MMR2-32926	If position source on AUV is lost it appears to affect the position source for other vessels
Tracking	MMR2-34291	Mobile object shape offsets incorrect
Tracking	MMR2-34403	No position being provided for a beacon being tracked via telemetry tracking
Tracking	MMR2-34440	Instability in depth aiding when you have 2 different update rates
Tracking	MMR2-34455	Vehicles such as ROV/AUV do not track on telemetry tracking
Tools	MMR2-34458	Average fix GNSS offsets are swapped & GyroUSBL missing from AHRS list
Time	MMR2-34158	Customer reported time going backwards
Time	MMR2-34340	Zero time stamp in SPOS message
Time	MMR2-34467	Use time in messages when ESH is UTC sync'd
UI	MMR2-34334	Watch circles / range+bearing lines disappear from chart view when zooming
UI	MMR2-34421	MRAMS - pulse position text does not fit in collection method field
UI	MMR2-34424	It is possible to get beacons table into a state where items are highlighted but the Apply button is not enabled
UI	MMR2-34456	Beacons table icon is marksman symbol in Ranger2
Support	MMR2-33819	Logger - Resource issue caused by failure mode
Support	MMR2-34301	Add MM/R2 installation log to the CEF.
Support	MMR2-34311	Debug logs are filling up very quickly when running MicroRanger 2 portable system
Support	MMR2-34335	When selecting a time period data is not exported for the chosen period
Support	MMR2-34342	Large number of performance counter debug errors when running on a marine pc
Support	MMR2-34349	Resource Monitor data collection needs to be configurable and continuous data
Support	MMR2-34404	Exception observed in debug logs when beacon tracking failed
Support	MMR2-34434	SMS message being duplicated by PAN port
Support	MMR2-34461	DAT Tool update required to open CEF files.
Support	MMR2-34491	Log file connection failed (logging disabled) when restarting R2
Security	MMR2-34394	Application requires admin rights to run.
Reports	MMR2-33352	PSONUSBL is outputting a -2 as the index for a vehicle
Reports	MMR2-34414	SPRINT telegram option not available until you track the beacon
Reports	MMR2-34487	Duplicate Telegrams output when running MRAMS
Remote Control	MMR2-33369	If the Get All fails all 3 retries on the first command, should it give up and report failed
Devices	MMR2-33209	Wrong Power and gain set for differing Operating ranges on various beacons
Devices	MMR2-33221	RT6 should show the Depth sensor options same as SST6 and Marker 6
Devices	MMR2-33504	Can't change transceiver settings while failed beacon command pending
Devices	MMR2-34225	BSM: Sensor Monitoring plotting incorrect depth data
Devices	MMR2-34283	GyroUSBL type (single housing or separate) not persisted through restart
Devices	MMR2-34315	Update Lodestar Configuration file being deployed in R2 and MM installers to the latest.
Devices	MMR2-34338	RT6 Battery information isn't displayed in beacons table

Marksman & Ranger 2 Release Notes

Functional Area	Ref	Description
Devices	MMR2-34351	Request that when an Avtrak is added with Get None CIS is available as an option
Devices	MMR2-34366	ESH trigger available in Micro R2 if beacon is pre-configured
Devices	MMR2-34388	Loss of comms to Mti every 10min
Devices	MMR2-34392	Authenticate the TCVR when command return FLxxxx
Devices	MMR2-34411	When a beacon is imported via csv if the csv has the battery column blank then the UI displays it as low battery/0%/)V - it should be unknown
Devices	MMR2-34413	ESH PSU Status is decoded as firmware version
Devices	MMR2-34425	When using the Operating range to determine power/gain an Avtrak 6 is always set to TPL/NPL166
Devices	MMR2-34429	When adding an SST or OBC the software thinks that something is happening in beacon setup
Devices	MMR2-34437	Added 6 beacon with get identity and it put them as IIS should be CIS
Devices	MMR2-34442	NSH loss connection
Devices	MMR2-34447	Get All on SST6 fails on FS response - exceptions in debug log
Devices	MMR2-34448	Unable to Group track SST6 v6.04 - dongle related i think
Devices	MMR2-34450	Unable to Track SST6 beacons when added via Remote control interface
Devices	MMR2-34457	When adding a Nano and carrying out a Get All no commands are sent and Interrogate is blank
Devices	MMR2-34466	GNSS data not being accepted but resolved by a software reboot
Devices	MMR2-34478	UNLK not being sent from NSH
Devices	MMR2-34482	Unable to identify a WMT after discovering
Config	MMR2-11476	Alarms: Ensure that alarms and events can be raised between jobs.
Config	MMR2-11548	DP-INS: Switching job away from INS job does not clear INS alarm
Config	MMR2-21176	[UI] Add Alarm for Job Save Failed
Config	MMR2-34237	Job save failed when setting up new job resulting in no job file being created
Config	MMR2-34460	Significant number of debug errors when switching between jobs and took a long time to load the previous job
Config	MMR2-34469	Mini R2 takes a long time to boot
Config	MMR2-34471	Job save failure
Config	MMR2-34484	Displaying the incorrect TAT for Nano on IIS
Config	MMR2-34486	The LRT release is scheduling a transmit of D0 which fails on the HPT
Config	MMR2-34488	No responder output
Config	MMR2-34489	SST6 failed to be created when added
Alarms	MMR2-34464	Clear "Unable to position in world reference frame" when GNSS is deleted
Alarms	MMR2-22990	BSM: Alarms not working properly in Sensor Monitoring Tool
Alarms	MMR2-34381	Supress event message 'NSH 1 has failed to send power through transceiver card x' if it happens for less than 10 seconds
Installer	MMR2-14839	Installer - Release Notes shortcut needs to be created by the installer
Installer	MMR2-23246	Installer: Start menu short cut is not created for the DAT tool
Installer	MMR2-34298	Update splash screen to show Beta release.

Functional Area	Ref	Description
Installer	MMR2-34302	Installer failed to successfully install SQL2019
Installer	MMR2-34331	Installer fails if new dongle is attached to the pc
Installer	MMR2-34344	MM/R2 installer fails if there is a problem installing vpsk
Installer	MMR2-34397	Update Bootloader code

6.03.06

From 6.03.01 onwards Ranger 2 / Marksman will not install/run on Windows 7. For more information on Windows 7 please contact customer support, using the details at the end of these release notes.

Hardware Requirements

Marksman and Ranger 2 have the following computer hardware requirements to run

Item	Minimum Specification	Recommended Specification
CPU	i5 2.8GHz	i7 2.8GHz
Memory	8 GB RAM	8 GB RAM
Harddisk	240 GB SSD or hard disk	500 GB SSD
Graphics	32-bit colour, Direct-X V10 or later	32-bit colour, Direct-X V10 or later
Monitor Resolution	1280 x 1024	1920 x 1080
USB	4 USB Ports	4 USB Ports
Operating System	Windows 10 Professional x64	Windows 10 Professional x64

Firmware

The following instrument firmware versions have been tested with this software version. As a minimum, these firmware versions must be installed in each component when used with this version:

Instrument	Firmware Version
HPT	4.02.01.01
MRT	1.00.04.05
NSH	2.00.03.107
ESH	1.00.07.00
Lodestar	3.02.01.1019
C6/GyroC6	3.12.07.13
WSM6+	3.05.00.04
RN6	3.05.06.12
WMT	3.12.02.02
PGT6	3.05.09.07
SST6	1.00.04.01
Marker 6	1.00.04.03
DART	3.02.02.11
AVC	2.04.02.06
iWand	1.01.01.05

New Features

Summary

Functional Area	Ref	Description

Bug Fixes

For more details on any of the fixes below please contact Sonardyne customer support

Functional Area	Ref	Description
Tracking	MMR2-34361	Responder latency not being applied correctly.

6.03.05

From 6.03.01 onwards Ranger 2 / Marksman will not install/run on Windows 7. For more information on Windows 7 please contact customer support, using the details at the end of these release notes.

Hardware Requirements

Marksman and Ranger 2 have the following computer hardware requirements to run

Item	Minimum Specification	Recommended Specification
CPU	i5 2.8GHz	i7 2.8GHz
Memory	8 GB RAM	8 GB RAM
Hard disk	240 GB SSD or hard disk	500 GB SSD
Graphics	32-bit colour, Direct-X V10 or later	32-bit colour, Direct-X V10 or later
Monitor Resolution	1280 x 1024	1920 x 1080
USB	4 USB Ports	4 USB Ports
Operating System	Windows 10 Professional x64	Windows 10 Professional x64

Firmware

The following instrument firmware versions have been tested with this software version. As a minimum, these firmware versions must be installed in each component when used with this version:

Instrument	Firmware Version
HPT	4.02.01.01
MRT	1.00.04.05
NSH	2.00.03.107
ESH	1.00.07.00
Lodestar	3.02.01.1019
C6/GyroC6	3.12.07.13
WSM6+	3.05.00.04
RN6	3.05.06.12
WMT	3.12.02.02

Instrument	Firmware Version
PGT6	3.05.09.07
SST6	1.00.04.01
Marker 6	1.00.04.03
DART	3.02.02.11
AVC	2.04.02.06
iWand	1.01.01.05

New Features

Summary

Functional Area	Ref	Description

Bug Fixes

For more details on any of the fixes below please contact Sonardyne customer support

Functional Area	Ref	Description
Tracking	MMR2-34350	Nano PPD is being auto disabled when 3 no range replies are received

6.03.04

From 6.03.01 onwards Ranger 2 / Marksman will not install/run on Windows 7. For more information on Windows 7 please contact customer support, using the details at the end of these release notes.

Hardware Requirements

Marksman and Ranger 2 have the following computer hardware requirements to run

Item	Minimum Specification	Recommended Specification
CPU	i5 2.8GHz	i7 2.8GHz
Memory	8 GB RAM	8 GB RAM
Harddisk	240 GB SSD or hard disk	500 GB SSD
Graphics	32-bit colour, Direct-X V10 or later	32-bit colour, Direct-X V10 or later
Monitor Resolution	1280 x 1024	1920 x 1080
USB	4 USB Ports	4 USB Ports
Operating System	Windows 10 Professional x64	Windows 10 Professional x64

Firmware

The following instrument firmware versions have been tested with this software version. As a minimum, these firmware versions must be installed in each component when used with this version:

Instrument	Firmware Version
HPT	4.02.01.01

Marksman & Ranger 2 Release Notes

Instrument	Firmware Version
MRT	1.00.04.05
NSH	2.00.03.107
ESH	1.00.07.00
Lodestar	3.02.01.1019
C6/GyroC6	3.12.07.13
WSM6+	3.05.00.04
RN6	3.05.06.12
WMT	3.12.02.02
PGT6	3.05.09.07
SST6	1.00.04.01
Marker 6	1.00.04.03
DART	3.02.02.11
AVC	2.04.02.06
iWand	1.01.01.05

New Features

Summary

Functional Area	Ref	Description
Security	MMR2-34329	Update to version 8 security key drivers that support v30 DK2's

Bug Fixes

For more details on any of the fixes below please contact Sonardyne customer support

Functional Area	Ref	Description
Tracking	MMR2-34325	Telemetry Tracking: Range observations using incorrect TAT
Logging	MMR2-34318	Logger and DAT not housekeeping log files when unless application run with admin
User Experience	MMR2-34328	Text display fails to convert range to feet in US Units

6.03.03

From 6.03.01 onwards Ranger 2 / Marksman will not install/run on Windows 7. For more information on Windows 7 please contact customer support, using the details at the end of these release notes.

Hardware Requirements

Marksman and Ranger 2 have the following computer hardware requirements to run

Item	Minimum Specification	Recommended Specification
CPU	i5 2.8GHz	i7 2.8GHz
Memory	8 GB RAM	8 GB RAM
Harddisk	240 GB SSD or hard disk	500 GB SSD

Item	Minimum Specification	Recommended Specification
Graphics	32-bit colour, Direct-X V10 or later	32-bit colour, Direct-X V10 or later
Monitor Resolution	1280 x 1024	1920 x 1080
USB	4 USB Ports	4 USB Ports
Operating System	Windows 10 Professional x64	Windows 10 Professional x64

Firmware

The following instrument firmware versions have been tested with this software version. As a minimum, these firmware versions must be installed in each component when used with this version:

Instrument	Firmware Version
HPT	4.02.01.01
MRT	1.00.04.05
NSH	2.00.03.107
ESH	1.00.07.00
Lodestar	3.02.01.1019
C6/GyroC6	3.12.07.13
WSM6+	3.05.00.04
RN6	3.05.06.12
WMT	3.12.02.02
PGT6	3.05.09.07
SST6	1.00.04.01
Marker 6	1.00.04.03
DART	3.02.02.11
AVC	2.04.02.06
iWand	1.01.01.05

New Features

Summary

Functional Area	Ref	Description

Bug Fixes

For more details on any of the fixes below please contact Sonardyne customer support

Functional Area	Ref	Description
Tracking	MMR2-34304	HPT3000 AHRS offsets not being applied

Functional Area	Ref	Description
CASIUS	MMR2-34303	Export button in CASIUS saving results incorrectly to mini Ranger 2 and GyroUSBL transceivers.

6.03.02

From 6.03.01 onwards Ranger 2 / Marksman will not install/run on Windows 7. For more information on Windows 7 please contact customer support, using the details at the end of these release notes.

Hardware Requirements

Marksman and Ranger 2 have the following computer hardware requirements to run

Item	Minimum Specification	Recommended Specification
CPU	i5 2.8GHz	i7 2.8GHz
Memory	8 GB RAM	8 GB RAM
Harddisk	240 GB SSD or hard disk	500 GB SSD
Graphics	32-bit colour, Direct-X V10 or later	32-bit colour, Direct-X V10 or later
Monitor Resolution	1280 x 1024	1920 x 1080
USB	4 USB Ports	4 USB Ports
Operating System	Windows 10 Professional x64	Windows 10 Professional x64

Firmware

The following instrument firmware versions have been tested with this software version. As a minimum, these firmware versions must be installed in each component when used with this version:

Instrument	Firmware Version
HPT	4.01.01.01
MRT	1.00.04.05
NSH	2.00.03.107
ESH	1.00.07.00
Lodestar	3.02.01.1019
C6/GyroC6	3.05.13.11
WSM6+	3.05.00.04
RN6	3.05.06.12
WMT	3.12.02.02
PGT6	3.05.09.07
SST6	1.00.04.01
Marker 6	1.00.04.03
DART	3.02.02.11
AVC	2.04.02.06
iWand	1.01.01.05

New Features

Summary

Functional Area	Ref	Description
Manual	MMR2-34286	Update the NSH-Tcvr Cable drawing
Manual	MMR2-34289	Clarify Micro Ranger 2 manual features
Support	MMR2-34299	Update DAT for SQL2019 and databases from older servers
Security	MMR2-34288	Update ApplicationSetting code (not to create instance name)
Security	MMR2-34287	Uninstall SQL 2014 from Windows 10 (Sonardyne instance only).

Bug Fixes

For more details on any of the fixes below please contact Sonardyne customer support

Functional Area	Ref	Description

6.03.01

6.03.01 for all Ranger 2 and Marksman editions includes all enhancements and fixes released in 6.02.01 (which was only released for the Micro-Ranger 2 edition). Full details of all changes are included in these release notes.

6.03.01 will not install/run on Windows 7. For more information on Windows 7 please contact customer support, using the details at the end of these release notes.

Hardware Requirements

Marksman and Ranger 2 have the following computer hardware requirements to run

Item	Minimum Specification	Recommended Specification
CPU	i5 2.8GHz	i7 2.8GHz
Memory	8 GB RAM	8 GB RAM
Harddisk	240 GB SSD or hard disk	500 GB SSD
Graphics	32-bit colour, Direct-X V10 or later	32-bit colour, Direct-X V10 or later
Monitor Resolution	1280 x 1024	1920 x 1080
USB	4 USB Ports	4 USB Ports
Operating System	Windows 10 Professional x64	Windows 10 Professional x64

Firmware

The following instrument firmware versions have been tested with this software version. As a minimum, these firmware versions must be installed in each component when used with this version:

Instrument	Firmware Version
HPT	4.01.01.01
MRT	1.00.04.05

Marksman & Ranger 2 Release Notes

Instrument	Firmware Version
NSH	2.00.03.107
ESH	1.00.07.00
Lodestar	3.02.01.1019
C6/GyroC6	3.05.13.11
WSM6+	3.05.00.04
RN6	3.05.06.12
WMT	3.12.02.02
PGT6	3.05.09.07
SST6	1.00.04.01
Marker 6	1.00.04.03
DART	3.02.02.11
AVC	2.04.02.06
iWand	1.01.01.05

New Features

Summary

Functional Area	Ref	Description
Average Fix	MMR2-34216	Can't create an average fix for an ROV
Average Fix	MMR2-33685	Please add lat/long to average fix report
Average Fix	MMR2-33371	Please add the system configuration before the average fix results in the PDF report.
CASIUS	MMR2-34189	Add a Before/Calculated position for each beacons in the results page
CASIUS	MMR2-32950	Show before and after tcvr offsets, heading pitch and roll and SV on the CASIUS results tab
Deployment Machine	MMR2-34174	Please clarify Deployment Machine warning messages.
Deployment Machine	MMR2-33179	When Deployment Machine status logo is double clicked the UI now opens
Installer	MMR2-34191	Modify the Release folder with all required files
Installer	MMR2-34160	Add .net 4.8 installer to Ranger2/Marksman
Installer	MMR2-34030	Update R2/MM release notes shortcut to launch ReleaseNotes.pdf instead of VersionHistory.rtf.
Installer	MMR2-34146	Remove installer for Adobe Reader - allow the user to choose their own pdf reader
Instrumentation	MMR2-34233	Please add AvTrak6 to default list of transponders in Micro and Mini-Ranger 2 MF
Instrumentation	MMR2-16992	Beacon: Low battery C6 not raising an alarm
Library Updates	MMR2-34176	Update Logger's server management objects to support SQL Server 2019
Library Updates	MMR2-34170	Modify code and installer files to support SQL 2019

Functional Area	Ref	Description
Library Updates	MMR2-34179	Upgrade the Chart library with SharpDx
Library Updates	MMR2-34167	upgrade the system status provider application (remote monitoring) to .net 4.8
Library Updates	MMR2-34152	Replace usage of Microsoft XML parser
Library Updates	MMR2-34151	Update .NET version to 4.8
Library Updates	MMR2-34148	Update version of SQL Server used to SQL server express 2019
Scheduler	MMR2-34183	Create configurable limit on number of CIS replies
Scheduler	MMR2-34182	Create CIS dongle flag
Security	MMR2-34190	Update and add the Installer tool LogWindowsEvent
Security	MMR2-34185	Update Utilities projects to .net 4.8
Security	MMR2-34162	As export controller I want to see range limits imposed
Security	MMR2-34161	Include SQL 2019 Express in Ranger 2 installer
Security	MMR2-34159	Remove merge packages from installer
Security	MMR2-34144	Remove pre-installer SE46 information
Security	MMR2-34147	As a user I would like Ranger 2 to not have to start in Administrator mode
Support	MMR2-34228	Marksman/Ranger 2 and Hardware User Manuals Link
Support	MMR2-34227	Add Marksman/Ranger 2 Training videos to the .iso
Support	MMR2-34009	Generate Log files for each install
Support	MMR2-33895	Add directory listing to CEF logs
Support	MMR2-28937	Add a dongle settings file to the CEF
Support	MMR2-14847	CEF Export Tool - Include Dongle information in the SystemInformation.txt file
Time Sync	MMR2-34180	Add an SNTP client TOD device
Tracking	MMR2-34001	Allow vehicles to be added to Mini and Micro-Ranger 2 to enable a depth sensor to be used in high elevation tracking
Tracking	MMR2-33648	On a DP-INS system if all beacons are set to mobile an INS reset should be sent, so we don't provide a degraded position to the DP desk

Bug Fixes

For more details on any of the fixes below please contact Sonardyne customer support

Functional Area	Ref	Description
Average Fix	MMR2-34244	Average fix report contains tcvr error value not offsets
Average Fix	MMR2-34213	Average Fix Tool Units - offsets in the report are displayed in m when the rest of the system is in ft, and csv data is still in m
Average Fix	MMR2-34212	CSV export - depth data is displayed as a negative
Average Fix	MMR2-34211	Please display the depth of the average fix instead of positive z

Marksman & Ranger 2 Release Notes

Functional Area	Ref	Description
CASIUS	MMR2-34249	OFS command not sent to GyroUSBL
CASIUS	MMR2-34234	Casius didn't converge due to no initial position for the beacon
CASIUS	MMR2-30004	Simplify names of discovered beacons so that they display correctly in the CASIUS PDF report
CASIUS	MMR2-33719	Ensure resources released on exit from CASIUS
CASIUS	MMR2-33525	Resolved untrapped exception.
Deployment Machine	MMR2-30162	Improve raising/clearing of Deployment Machine alarms
Deployment Machine	MMR2-33177	Disable Deployment Machine Close Valve button when powered off
Deployment Machine	MMR2-33176	Change description of Deployment Machine fault message
Deployment Machine	MMR2-33174	Report Deployment Machine fault for bad positions
Installer	MMR2-34267	Create DAT shortcut in the R2/MM menu
Instrumentation	MMR2-34255	SST6 has release option but no commands are sent
Instrumentation	MMR2-34253	Can't add a WSM6+
Instrumentation	MMR2-34251	Unnecessary commands sent when disabling a GyroC6
Instrumentation	MMR2-34246	Output telegram source changes by itself with no user interaction
Instrumentation	MMR2-34230	Changing RovNav Tx signal not applied
Instrumentation	MMR2-34215	DigiQuartz depth sensor does not persist its units if disabled from then re-enabled for use in tracking
Instrumentation	MMR2-24574	Tracking should use the highest power if all beacons are on the same CIS
Instrumentation	MMR2-33976	Missing field in PSONMEAS telegram output
Instrumentation	MMR2-33708	Get status does not send SUB command
Instrumentation	MMR2-33437	discover of a wsm6+ and not identify > import causes beacon not to be added with the exception
Instrumentation	MMR2-32912	If you change the telegram port to another ESH port the data is no longer output
Instrumentation	MMR2-34257	System failed to start tracking when Compatt 6 added in Quick Track Tool
Instrumentation	MMR2-34270	Pinger Locator will not plot AODC beacons
Instrumentation	MMR2-34243	CIS Telemetry Track - if one of the beacons being tracked is asleep no wakeup tone is sent
Remote Control	MMR2-33677	Simplify automatically generated names for discovered beacons for use over remote control UI
Remote Control	MMR2-33674	Resolve Async 'On change' output issues when GPS active
Remote Control	MMR2-33623	Correct RCT connection over UDP when displaying CASIUS legs
Remote Control	MMR2-33609	Remote Control protocol inconsistent when adding WSM6+
Remote Control	MMR2-34268	Importing a large number of beacons via csv results in R2 adding some as omni and some as directional
Security	MMR2-34252	It's possible to exceed the 99 beacon limit by using Discover

Functional Area	Ref	Description
Security	MMR2-33873	Ranger 2 / Marksman need to be able to run from a Windows 10 Standard User account
Support	MMR2-34266	Reports are not flagging simulate mode correctly.
Support	MMR2-34248	Admittance command parsing does not support negative numbers.
Support	MMR2-34204	Pulse position depth collected whilst tracking results in Log file filling up with Job data
Support	MMR2-34177	Data is not always exported in time order
Support	MMR2-33864	Resolve CEF generation problems
Support	MMR2-33503	waypoints cannot be imported in Micro-Ranger 2
Support	MMR2-33396	Resolved issue writing Events CSV files
Support	MMR2-33232	If you switch between jobs an alarm is raised saying 'Job save failed. Device: Ð has no corresponding Reference Frame'
Time Sync	MMR2-34202	Prevent TOD Re-Sync button causing the application to crash if NSH not present.
Time Sync	MMR2-33928	2s time error seen when synchronising to UTC
Time Sync	MMR2-33906	Alarm raised reporting huge time error
Time Sync	MMR2-33896	Please limit the NSH UTC Sync offset to +/-500ms
Tracking	MMR2-34247	Kalman filter creating 2 readings per update when an optimized HPT is used with TS9 global payload
Tracking	MMR2-34224	Resolve telemetry tracking issue when beacon was moved from mobile to ROV
Tracking	MMR2-33607	Don't raise the 'telegram not possible' alarms if the user has stopped tracking
User Experience	MMR2-34256	WSM6+ release text refers to WSM6Plus
User Experience	MMR2-34245	PitchRoll1 added to another instrument rather than vessel
User Experience	MMR2-34238	Please grey out the telemetry track box when a beacon is set to a NAV channel
User Experience	MMR2-34223	Output Editor is sluggish and slow to create new outputs
User Experience	MMR2-34079	Choice to display position in Latitude / Longitude is not persistent
User Experience	MMR2-33590	Job not created correctly
User Experience	MMR2-34219	Tracking single beacon at long range causes position data to overlap labels in position pane
User Experience	MMR2-34262	Changing an output telegrams port will still show the original port until UI is closed and re-opened
User Experience	MMR2-34214	System changes from tracking in world reference to waypoint reference when the system is rebooted
User Experience	MMR2-34254	GyroC6 Off alarm takes a while to clear when GyroC6 is turned on
User Experience	MMR2-34276	Power is left blank when importing attached CSV.

Contact Information

For further support please contact:

24/7 Emergency Helpline

T. +44 (0) 1252 877600

Email Support

support@sonardyne.com

Website

www.sonardyne.com