

Marksman & Ranger 2 Release Notes
Release Notes 6.04.07

Marksman & Ranger 2 Release Notes

Contents

6.04.07		5
Release Summary		5
Hardware		5
Firmware		5
New Features		6
Summary		6
MMR2-34603	Add a transparent modem port.	6
MMR2-34607	Streamline modem transceiver settings	7
MMR2-34639	Add a 'Monitor mode' to GNSS device types	7
MMR2-34650	Allow remote control of the modem functionality	7
MMR2-34621	Add control of Nth SMS tracking cycle via remote control interface	7
MMR2-34651, MMR2-34654	Shorten alarm messages that exceed NMEA0183 message length	7
Bug Fixes		7
6.04.06		8
Release Summary		8
Hardware		8
Firmware		8
New Features		9
Summary		9
Bug Fixes		9
6.04.05		9
Release Summary		9
Hardware		9
Firmware		10
New Features		10
Summary		10
MMR2-34580	Automatic GyroHPT detection.	11
MMR2-34605	Add a deployment machine status telegram	11
MMR2-34582	Force databases in CEF	11
MMR2-34584	Set default MultiUser connection 0 (Disabled)	11
MMR2-16163, MMR2-34547, MMR2-34555	Create a 6G Modem port	11
MMR2-34581	Make PAN port 'Use wake tone' a numerical selector	11
MMR2-34504	Provide the ability to track from any telemetry.	12
MMR2-34505	Robotics: Add SPOS update every Nth cycle in normal ranging.	12
Bug Fixes		12
6.04.04		13
Release Summary		13
Hardware		13
Firmware		13
New Features		14
Summary		14
MMR2-34507	Make the alarm on vessel speed with pole down more robust.	14

Marksman & Ranger 2 Release Notes

MMR2-34508	Telemetry Tracking: No indication of what is happening at start up if no reply received	14
MMR2-34479	Please add a device comms log for the Lodestar.	15
MMR2-34503	Serial number and Build data into CASIUS.	15
MMR2-34527	Please tie the name of the LS part of a GyroHPT to the tcvr name.	15
MMR2-34514, MMR2-34529, MMR2-34536	Library and Security updates.	15
Bug Fixes		15
6.04.03		16
Release Summary		16
Hardware		16
Firmware		16
New Features		17
Summary		17
MMR2-34533	Add an appsetting to control availability of Async status messages on remote control interface	17
MMR2-34524	Incomplete PSXN telegram is not parsing/decoding	17
6.04.02		18
Release Summary		18
Hardware		18
Firmware		18
New Features		19
Summary		19
MMR2-34522	Fix to DXF vessel shape import	19
MMR2-34524	Decode of PSXN10 attitude telegram problem	19
6.04.01		20
Release Summary		20
Hardware		20
Firmware		20
New Features		21
Summary		21
MMR2-34506	Large SMS buffer not serviced when depth aiding is running	21
MMR2-34501	Telemetry Tracking: SMS timeout on no reply too short	21
MMR2-34502	OBC beacon reply channel corruption	21
6.04.00		22
Hardware Requirements		22
Firmware		22
New Features		23
Summary		23
MMR2-34387	Rearrangement of packs/variants	24
MMR2-24586	Please add depth aiding to tracking on Telemetry	24
MMR2-34325	Range observations using incorrect TAT in SPRINT Filter	24
MMR2-34345	Create option to disable HPT2000, HPT3000 or MRT heading	24
MMR2-34378	Responder should now be an option for Nano 6 beacons	24
MMR2-34386	Prevent use of 17xx addresses	24

Marksman & Ranger 2 Release Notes

MMR2-34337	Remove PTP from Ranger 2	24
MMR2-34318	Logger and DAT Tool is not housekeeping log files when it's not run as admin	24
MMR2-34352	Remove DESKey pre-requisite from DAT installer.	24
MMR2-34156	Security tool instances	24
MMR2-34194	Library and Security updates	25
MMR2-34333	Add ESH watchdog to cut power to transceivers when Ranger 2 not running	25
MMR2-26248	Add ability to export waypoints	25
MMR2-34368	Waypoint import	25
MMR2-34322	Please add RT 6-6000(LMF) beacon type	25
MMR2-34332	Mini Ranger 2: Radian 2 change to support new sensor	25
MMR2-34363	Add new beacon type for 6G OEM Modem	25
MMR2-34384	Add distinct "Avtrack 6 Nano" and "Nano 6" beacon types	25
MMR2-34412	Please add an old ESH f/w version alarm	25
MMR2-34452	ESH - Change the rules to only re-connect 10 seconds after lack of any reply	25
MMR2-34453	ESH - reflect the ESH ClockStatus in the corner of the screen with ESH / EXT	25
MMR2-32967	Remove excluded data from the after plots	26
Bug Fixes		27
6.03.06		30
Hardware Requirements		30
Firmware		30
New Features		31
Summary		31
Bug Fixes		31
Contact Information		32

Marksman & Ranger 2 Release Notes

6.04.07

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.

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	Windows 11

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	3.13.01.14
AvTrak 6	3.13.01.03
Nano	5.13.00.12
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	3.02.01.1019 (DP INS + OPT USBL)

Marksman & Ranger 2 Release Notes

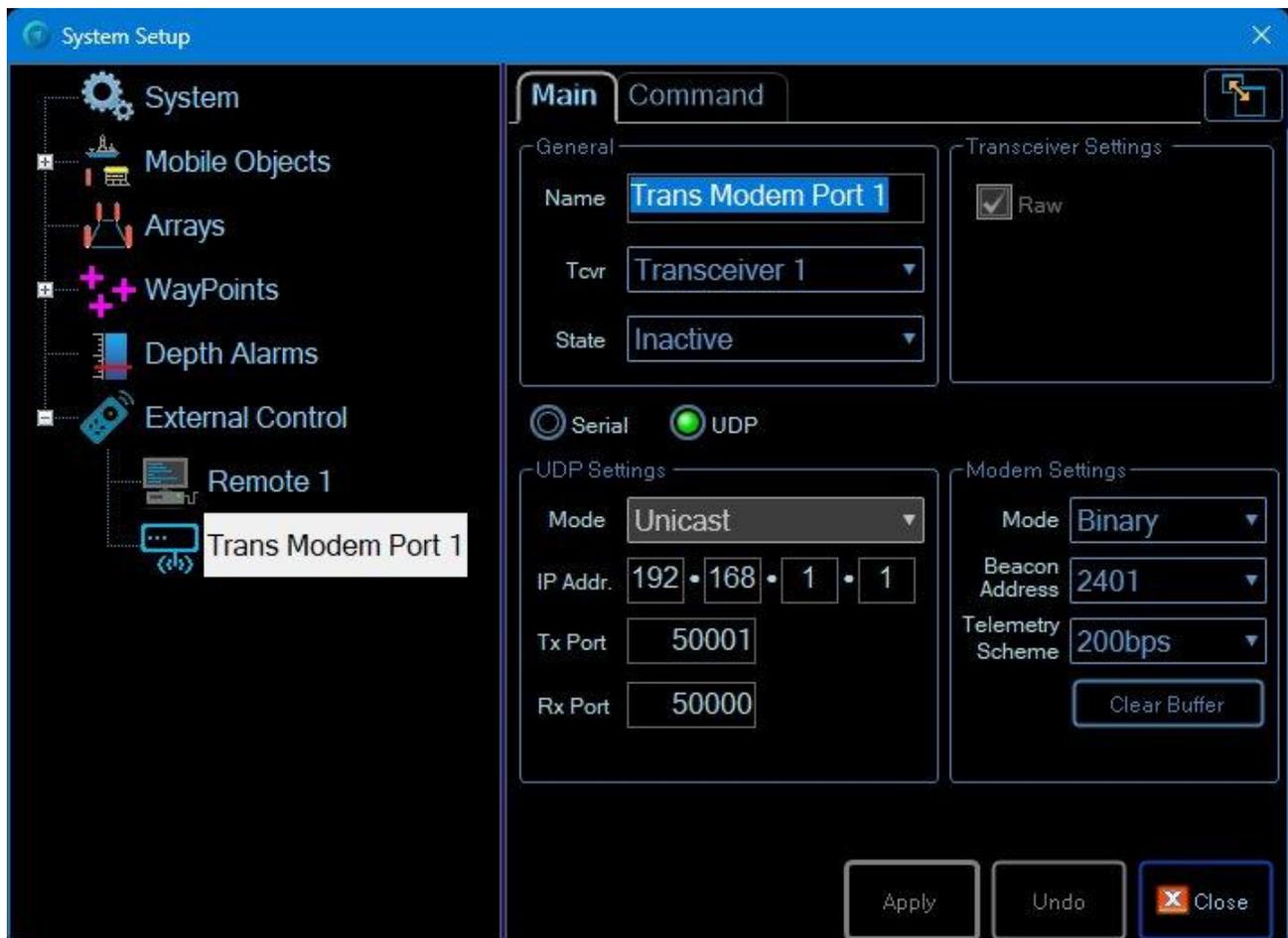
New Features

Summary

Functional Area	Ref	Description
Devices	MMR2-34603	Add a transparent modem port
Devices	MMR2-34607	Streamline modem transceiver settings
Devices	MMR2-34639	Add a 'Monitor mode' to all GNSS device types
Remote	MMR2-34650	Allow remote control of the modem functionality
Remote	MMR2-34621	Add control of Nth SMS tracking cycle via remote control interface
Alarms	MMR2-34651, MMR2-34654	Shorten alarm messages that exceed NMEA0183 message length

MMR2-34603 Add a transparent modem port.

A transparent modem port has been added which allows a modem channel to be established to a nominated transponder. The port can be configured as either an ASCII or binary port.



Marksman & Ranger 2 Release Notes

MMR2-34607 Streamline modem transceiver settings

Restore modem status parameters to the values that were last used when modem is made active.

MMR2-34639 Add a 'Monitor mode' to GNSS device types

A monitor mode has been added to allow GNSS devices to be disabled for active use but received and displayed so that the operator can view and judge whether the input is reliable before enabling it for active use.

MMR2-34650 Allow remote control of the modem functionality

Add control of modem Active/Inactive via the remote-control interface.

MMR2-34621 Add control of Nth SMS tracking cycle via remote control interface

Allow control of the number of normal ranging cycles in between SMS SPOS cycles through the remote-control interface

MMR2-34651, MMR2-34654 Shorten alarm messages that exceed NMEA0183 message length

The NMEA0183 telegram specification imposes a length limit on messages. Several alarm messages that contain device names could be made to exceed this limit. Control has been added to abbreviate the messages.

Bug Fixes

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

Functional Area	Ref	Description
Support	MMR2-34616	DAT tool - missing data within export
Tracking	MMR2-34627	Average fix report error
Tracking	MMR2-34629	Nth SMS update issue
Devices	MMR2-34636	FS from Origin 600 not decoded as a valid FS
Devices	MMR2-34637	6G OEM Modem beacon not always using wakeup W5 and W6
UI	MMR2-34607	Streamline Modem Mode Transceiver Settings
UI	MMR2-34648	Output Telegram Editor Port shows UDP/Broadcast - 255.255.255.255:2888 when only the last node of the address selected is 255
All areas	MMR2-34549, MMR2-34623, MMR2-34626, MMR2-34630, MMR2-34631, MMR2-34633, MMR2-34641, MMR2-34644, MMR2-34653, MMR2-34665	Performance and security.

Marksman & Ranger 2 Release Notes

6.04.06

Release Summary

This is an emergency release following Microsoft Defender flagging a hardware monitoring library that Ranger 2 uses as a potential Trojan. The function of this library was to monitor the CPU temperature while Ranger 2 was running. This data was not being actively used, but was available to aid investigations during customer support activities.

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.

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	Windows 11

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

Bug Fixes

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

Functional Area	Ref	Description
Devices	MMR2-34622	Make release option available for LRT beacon (mini-Ranger 2 HF)
Devices	MMR2-34640	Remove unrequired switch of LMF HPT to MF mode
Support	MMR2-34647	Remove hardware monitoring library flagged by Defender

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

Marksman & Ranger 2 Release Notes

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	3.13.01.03
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)

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

Marksman & Ranger 2 Release Notes

Functional Area	Ref	Description
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.

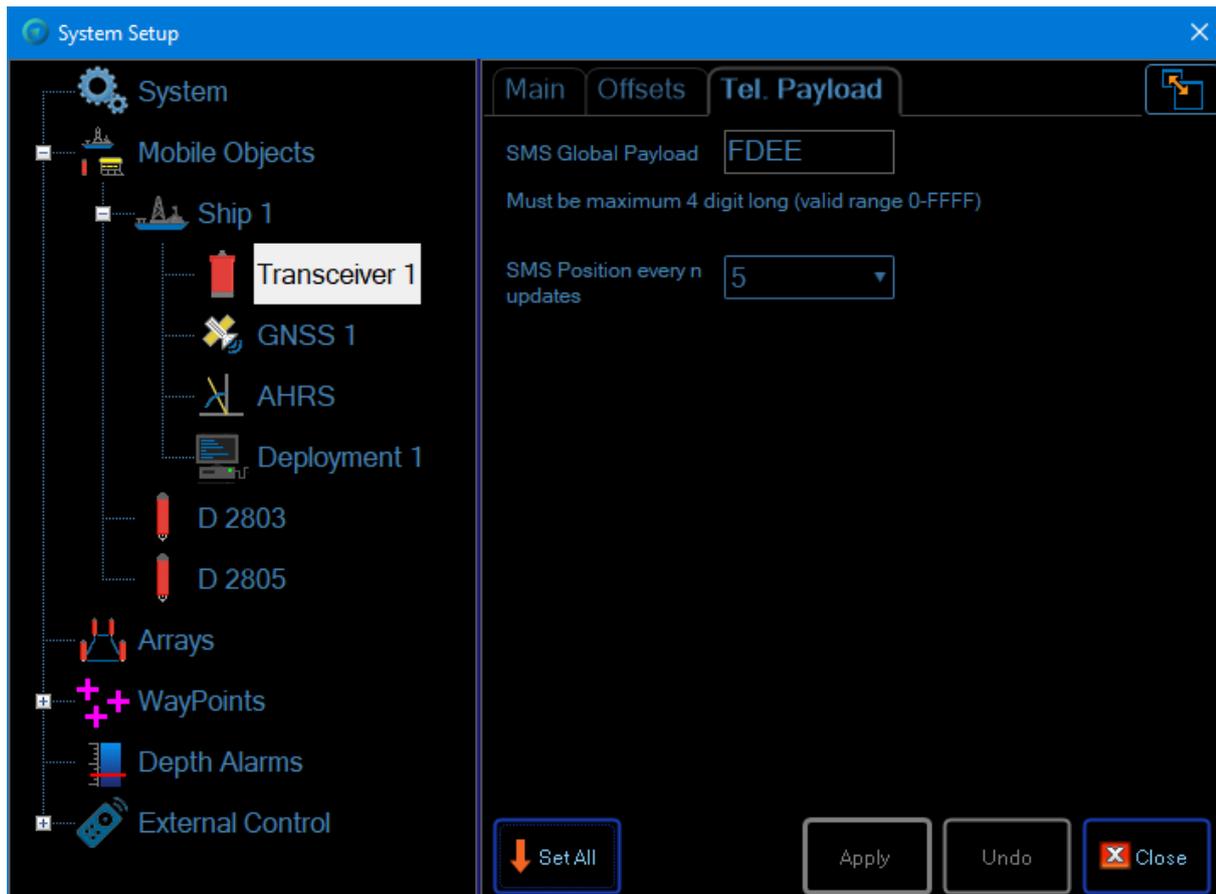
Marksman & Ranger 2 Release Notes

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

Marksman & Ranger 2 Release Notes

Functional Area	Ref	Description
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	[CASIOUS] 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
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

Marksman & Ranger 2 Release Notes

Instrument	Firmware Version
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 vane 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.

Marksman & Ranger 2 Release Notes

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

Marksman & Ranger 2 Release Notes

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)

Marksman & Ranger 2 Release Notes

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..

Marksman & Ranger 2 Release Notes

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

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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:

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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)

Marksman & Ranger 2 Release Notes

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.

Marksman & Ranger 2 Release Notes

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
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)

Marksman & Ranger 2 Release Notes

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.

Marksman & Ranger 2 Release Notes

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
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)

Marksman & Ranger 2 Release Notes

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

Marksman & Ranger 2 Release Notes

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.

Marksman & Ranger 2 Release Notes

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.

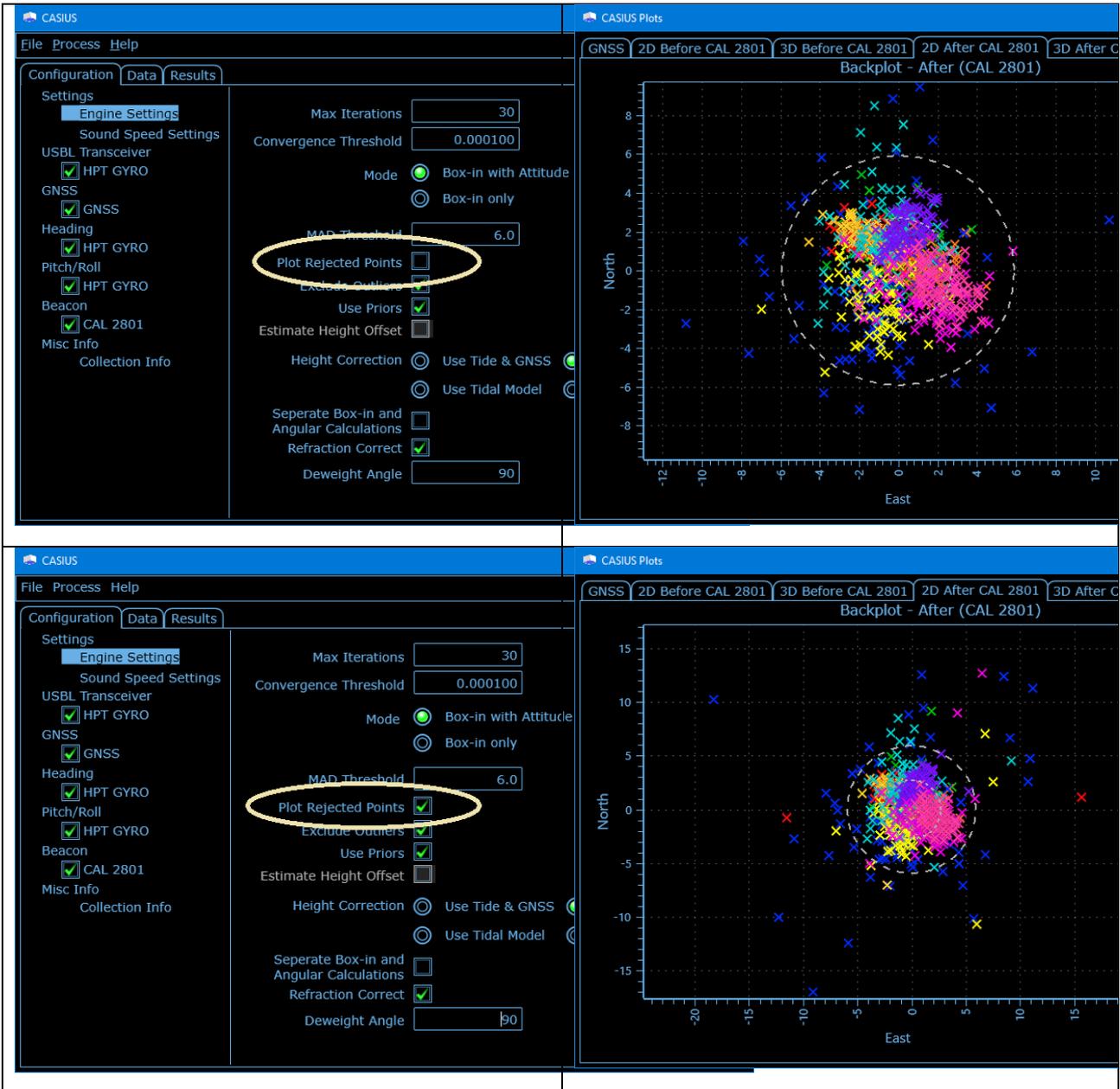
MMR2-34453 ESH - reflect the ESH ClockStatus in the corner of the screen with ESH / EXT

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

Marksman & Ranger 2 Release Notes

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:



Marksman & Ranger 2 Release Notes

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.

Marksman & Ranger 2 Release Notes

Functional Area	Ref	Description
Devices	MMR2-34338	RT6 Battery information isn't displayed in beacons table
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

Marksman & Ranger 2 Release Notes

Functional Area	Ref	Description
Installer	MMR2-34298	Update splash screen to show Beta release.
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

Marksman & Ranger 2 Release Notes

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

Marksman & Ranger 2 Release Notes

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.

Marksman & Ranger 2 Release Notes

Contact Information

For further support please contact:

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