

Regulus 1.0.1 Release Notes

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Regulus 1.0.1 Release Notes

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Revision History

Document Part Number	Revision	Publication Date	Changes
06605	A	March 2015	This is the initial release of this document.

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About Regulus

Regulus is a Wave Glider SV3 management application that runs on Linux on the Vehicle Management Computer (VMC) in the Command and Control Unit (CCU). Regulus controls all Wave Glider SV3 operations, including navigation and management of telemetry and data. Regulus also manages Wave Glider SV3 communications for most payloads, with the exception of payloads that have been developed to provide exclusive independent communications channels. A Regulus Stub that includes the Iridium Relay and Virtual Relay modules runs at the remote end of the communications channels (on ship or onshore). The Regulus Stub manages security keys and communications channels. Regulus can be configured to automatically select the lowest cost available communications channel for each data and command transmission.

For information on Wave Glider mechanical, electrical, communications, and software interfaces, see one of the following documents:

- *Wave Glider® SV2 Interface Control Description*
- *Wave Glider® SV3 Interface Control Description*

Chapter 1. Regulus 1.0.1 Release Notes

These release notes are organized into 4 sections:

- “Principal Changes” (page 1)
- “ User Experience Changes” (page 1)
- “ New Features” (page 1)
- “ Bug Fixes” (page 1)

Principal Changes

The 1.0.1 release is a bug fix release. It includes 61 bug fixes.

User Experience Changes

A Pre-Launch Checklist page with auto-populated fields was implemented.

Enable Power Switches on Domain Power - When a payload is integrated into the Wave Glider SV3 platform, a list of configurable power switches for enabling initial AMPS domain power appears.

To avoid issuing duplicate commands when the Virtual Relay connection is marginal, Regulus keeps track of message task IDs for 1 hour after they are received. If a command is received having the same task ID as a command that has already been issued, it will be ignored by Regulus.

New Features

There are no new features in this release.

Bug Fixes

61 bugs were fixed in this release, and 2 bugs were reopened.

The following 2 bugs were reopened (workarounds included):

REG-84	Plug-ins are not started when enabled When enabling a plug-in, from the disabled state, the service manager does not call <code>startSS()</code> which leaves the plug-in in the state <code>ServiceState.Initialized</code> . On enable, the service manager should start the plug-in service. The workaround is: Call <code>%serviceName.startSS()</code>
REG-117	Plug-ins disabled on Regulus reboot After installing a plug-in, it is disabled after a VMC reboot. Note that this has occurred after undeploying, deleting, uploading, then deploying a single plug-in.

The workaround is: First enable the disabled service with `%serviceName.setEnabled(1)`, then start the service with `%serviceName.startSS()`.

The following 61 bugs were fixed in this release:

REG-25	The WGMS Hold Station At Waypoint returns a NACK
REG-27	Hold current position function nacks command on SV3
REG-72	Powering up a payload on an expansion port does not power on the Ethernet switch if cell modem disabled
REG-73	Iridium not communicating issue
REG-74	After initial install from fresh SD card, Regulus hangs after reboot.
REG-76	Vehicle Internet Failure after loss of service
REG-78	Track WGMS Message TaskID (a.k.a. multipathing)
REG-83	Telemetry does not reflect hold station
REG-88	If /root/.VPNsetup exists, new VPN credentials can't be uploaded to the vehicle
REG-102	Device Power Dependency Request
REG-104	AIS Disable Reporting
REG-115	Still Booting message doesn't indicate which service it stuck on
REG-120	SV3 Payload: Enable Power Switches on Domain Power
REG-123	Read Waypoint Incorrectly ACKED
REG-126	GPS device failure not reported to shore
REG-127	NMEA Driver Init and Teardown
REG-128	Need method/interpreter interfaces for plug-ins
REG-133	Issue with WGMS 8.3 Filenames
REG-134	SV3 Wifi runs very slow without cell connection
REG-136	Stop thruster when forcing rudder angle
REG-143	Light AutoAIS cannot be disabled easily
REG-144	Web page data should be invalidated when switching from one vessel to another without changing IP address (eg. via WiFi)
REG-146	rudder alarms
REG-148	Thread Deadlock for Rudder Alarms
REG-153	Different names Light AutoAIS cannot be disabled easily for Thrudder expansion port
REG-154	Bad Weather Station Timestamp Data
REG-155	SV3 Pre-launch Checklist: Implemented a pre-launch checklist page with auto-populated fields
REG-158	Nack with Description Improperly Displayed
REG-159	JSON command not escaped properly with backslashes (and others) in SV3 payload manager
REG-161	services.cf file not removed
REG-163	Account for new version numbering scheme - moving away from just using build timestamps

REG-165	Better documentation for payload communication script.
REG-166	Add a default license header and fix the install part of the run script to clear out more old .jars
REG-188	Report regarding the total battery remaining frozen
REG-190	Duplicate and old files left in Regulus/lib after web-based upgrade
REG-193	Vehicle web and file based upgrades fail
REG-199	Prevent the Linux Out Of Memory Manager from killing Regulus
REG-200	run script should remove tika-parsers-1.4.jar jython-2.1.jar
REG-201	ScheduledExecutorService sets thread names
REG-203	Ublox antenna not powering on
REG-205	Rudder and Thruster watchdog cancel should terminate scheduled terminator thread
REG-206	AMPS cantransport listeners not checking for null thread list
REG-207	AMPS domain names don't increment correctly
REG-208	When AMPS cantransport connection is lost not all domains are freed
REG-209	Limited heading control when vehicle doesn't have a functioning GPS
REG-219	Need plug-in to correct 1.0 -> 1.0.1 config issues
REG-224	SV3 integrator payloads not starting the SMC (or payload computer)
REG-234	ExponentialMovingAverage parameterized incorrectly
REGAMPS-11	Power Domains are not Thread Safe
REGAMPS-12	Incorrect Expansion Switch Setting
REGAMPS-13	Repeated Ground Fault Alarms continue to 'stream' through the system into WGMS - consider changing to a 'Latching Alarm'. Also, AMPS config file needs to be updated per GFD port fields (see attached document)
REGAMPS-14	Wrong Thrudder Module in manifest.cf
REGAMPS-19	Thrudder exp port definition
REGAMPS-21	AMPS CANtransport listener thread does not detect a disconnected socket
REGSERVICE-31	Torpedo GPS needs some help
REGSERVICE-32	Float AHRS Class issue
REGSERVICE-33	Thrudder Webpage Forced Angle
REGSERVICE-36	Thrudder webpage resume
REGSERVICE-39	Virtual Relay Parameter Config
REGSERVICE-43	Allow the lightbar auto-on distance to be a fraction of a kilometer
REGSERVICE-51	No IP address issued for data download