WGMS™ Release Notes

Revision A
March, 2015
Part Number 07083

LIQUID ROBOTICS

WGMS™ Release Notes

Copyright © 2015 Liquid Robotics, Inc.

Confidential computer software. Valid license from Liquid Robotics, Inc. required for possession, use or copying. Consistent with FAR 12.211 and 12.212, Commercial Computer Software, Computer Software Documentation, and Technical Data for Commercial Items are licensed to the U.S. Government under vendor's standard commercial license.

Trademarks

Liquid Robotics®, LRI, Wave Glider®, Wave Glider Management System, WGMS, and SHARC® are worldwide trademarks of Liquid Robotics, Incorporated. Other products and company names mentioned herein may be the trademarks of their respective owners.

Patents

The Wave Glider mechanism is patented under US Patent Number 7,371,136 and other patents pending. All aspects of the Wave Glider product have been developed at private expense by Liquid Robotics, Inc.

Warranty

The information contained herein is subject to change without notice. The only warranties for Liquid Robotics, Inc. products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as a warranty. LRI, Inc. is not liable for technical or editorial errors or omissions contained herein.

Revision History

Document Part Number	Revision	Publication Date	Changes
07083	A	March 2015	This is the initial release of this document.

Table of Contents

1. WGMS Release Notes 1
Changes in Version 4.2.0 1
Principal Changes 1
User Experience Changes 1
New Features 6
Improvements and Tasks 6
Bug Fixes 7
Changes in Version 4.1.8 8
Principal Changes 8
User Experience Changes 8
New Features 12
Improvements and Tasks 13
Bug Fixes 13
Changes in Version 4.1.7 14
Principal Changes 14
User Experience Changes 14
New Features 18
Improvements and Tasks 18
Bug Fixes 18
Changes in Version 4.1.6.1 20
Principal Changes 20
User Experience Changes 21
New Features 23
Bug Fixes 23
Changes in Version 4.1.6 24
Principal Changes 24
User Experience Changes 24
New Features 29
Bug Fixes 30
Changes in Version 4.1.5 31
Principal Changes 31
User Experience Changes 32
New Features 38
Bug Fixes 38
Changes in Version 4.1.4 39
Principal Changes 39
User Experience Changes 40
New Features 41
Bug Fixes 42
Changes in Version 4.1.3 43
Principal Changes 43
User Experience Changes 43
New Features 46
Bug Fixes 46
Changes in Version 4.1.2 46
Principal Changes 46
User Experience Changes 47
New Features 48
Bug Fixes 48
Changes in Version 4.1.1 49
Principal Changes 49

User Experience Changes 49
New Features 50
Bug Fixes 50
Changes in Version 4.1.0 51
Principal Changes 51
User Experience Changes 51
New Features 54
Bug Fixes 55
Changes in Version 4.0.5 55
Principal Changes 55
User Experience Changes 55
New Features 56
Bug Fixes 56
Changes in Version 4.0.4 57
Principal Changes 57
Changes in Version 4.0.3 57
Principal Changes 57
User Experience Changes 57
New Features 60
Bug Fixes 60
Changes in Version 4.0.2 61
Principal Changes 61
User Experience Changes 61
New Features 62
Bug Fixes 62
Changes in Version 4.0.1 63
Principal Changes 63
User Experience Changes 63
New Features 65
Bug Fixes 65
Changes in Version 4.0.0 66
Principal Changes 66
User Experience Changes 66
New Features 69
Bug Fixes 70

Chapter 1. WGMS Release Notes

The Liquid Robotics Inc. (LRI) Wave Glider is a platform for long-duration deployment of ocean surface sensor systems. The Wave Glider Management System (WGMS) software provides browser and programmatic interfaces to allow users and applications to send commands to the Wave Glider, including its payloads, and to receive data from the Wave Glider and its payloads.

This document contains WGMS release notes, starting with the most recently released WGMS version, working back in time to WGMS version 4.0.0.

Changes in Version 4.2.0

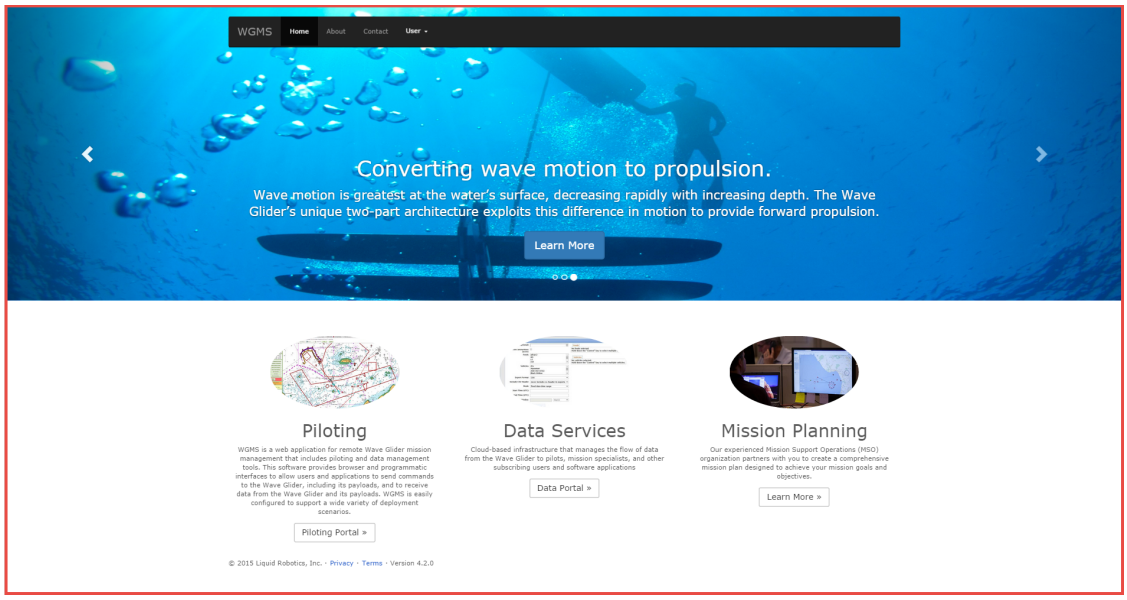
Principal Changes

The 4.2.0 release includes:

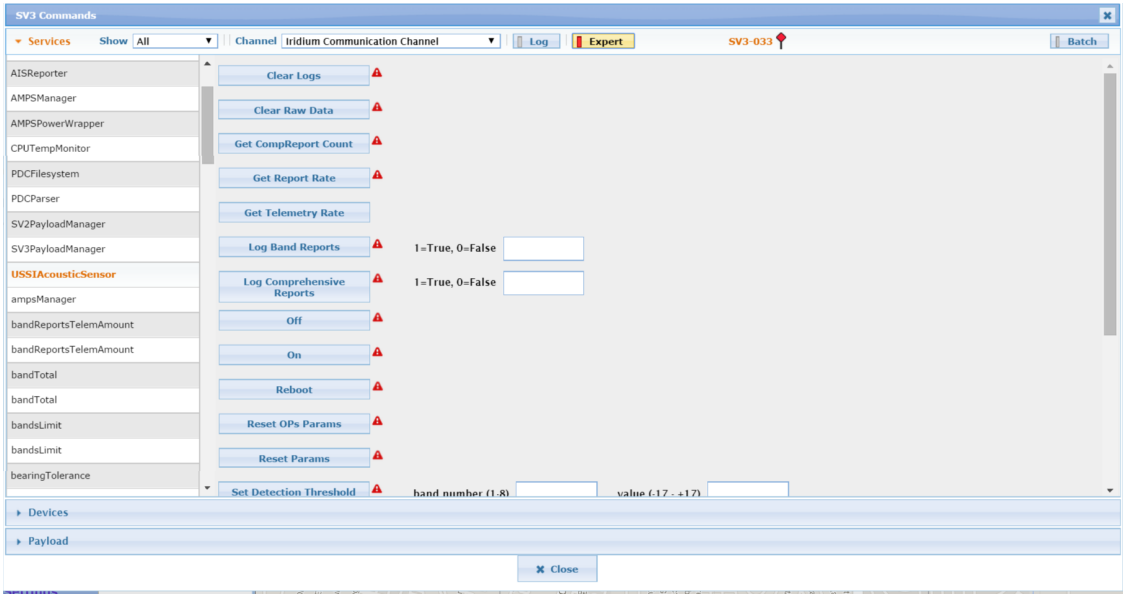
1. A new landing page where you can access all shore-side applications.
2. Modified help pages that use Twitter Bootstrap styling.
3. New Sentinel displays.
4. New smaller packet Telemetry 0xF support for SV3s.
5. Organization Hierarchy changes and support of Vehicle Move to any WGMS Organization.
6. New integrated Alarm and Vehicle Health display.
7. New Mission Health panel (for all vehicles included in a mission).
8. Several other features, improvements, and bug fixes.

User Experience Changes

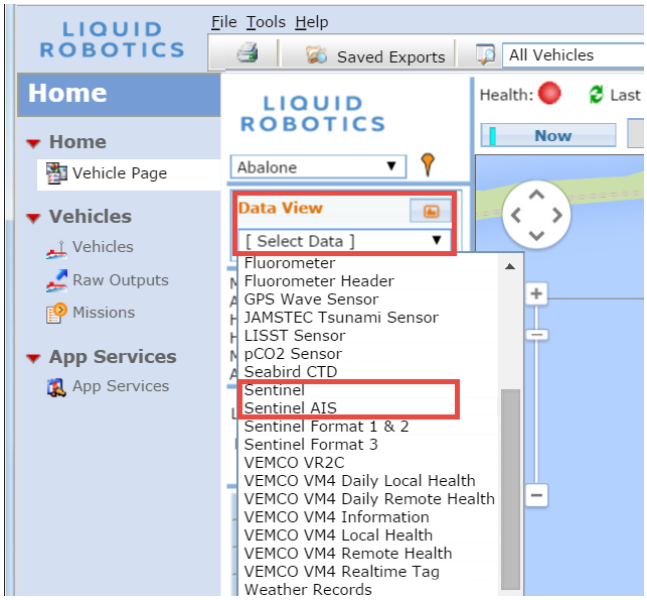
New landing page (for all shore side applications):



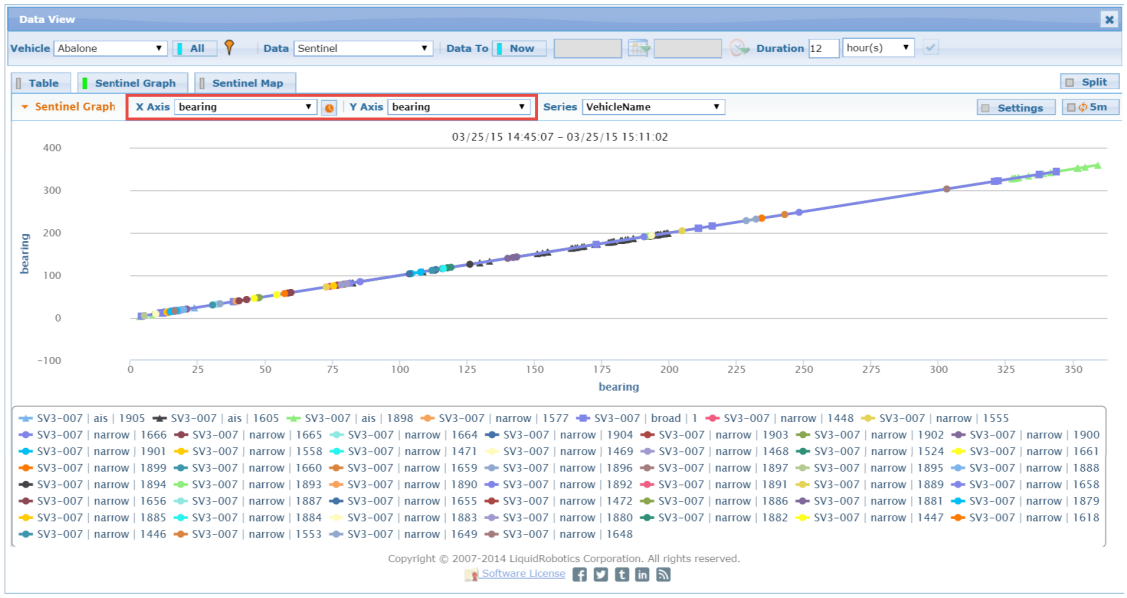
A Sentinel Service to publish the Regulus Commands Manifest that renders Sentinel commands in the SV3 Command Window:



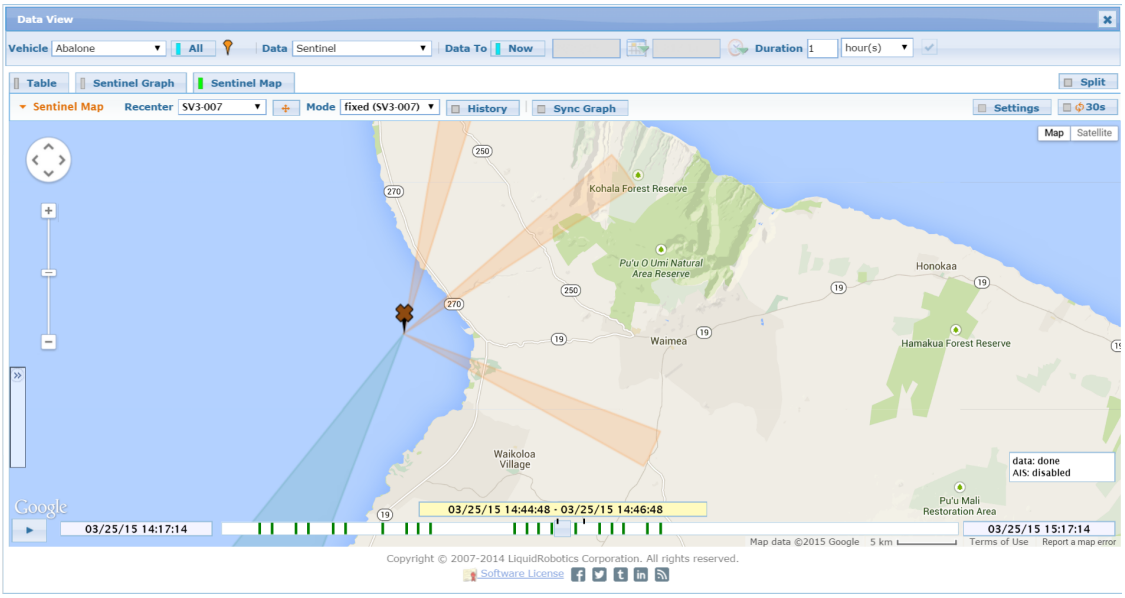
Additional Sentinel Data displays (Sentinel and Sentinel AIS) have been added:



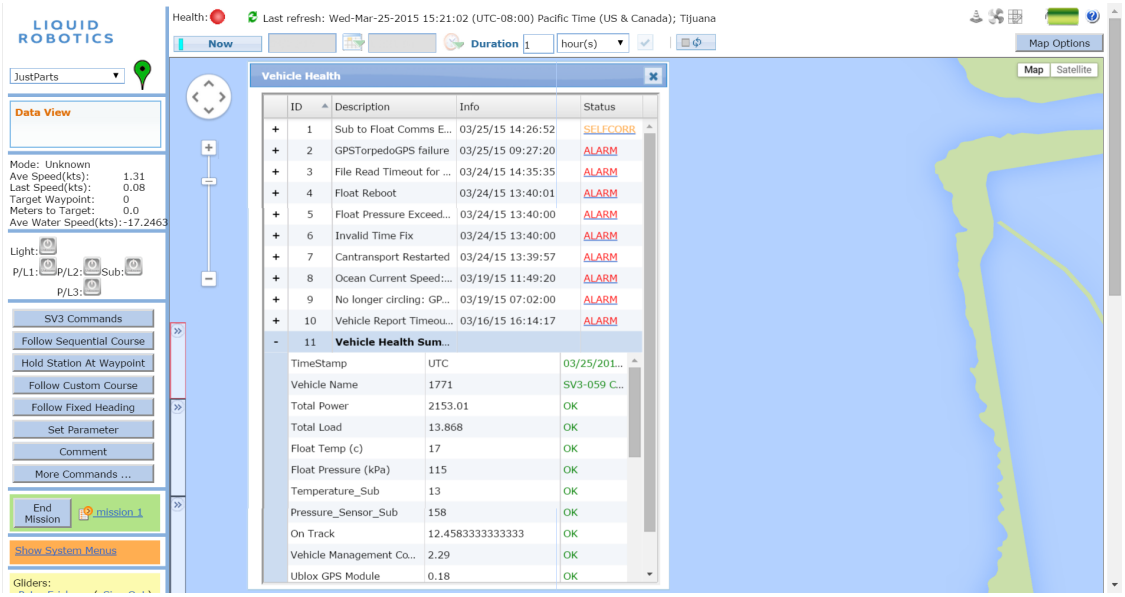
Custom Bearing settings have been added to the Sentinel Graph view:



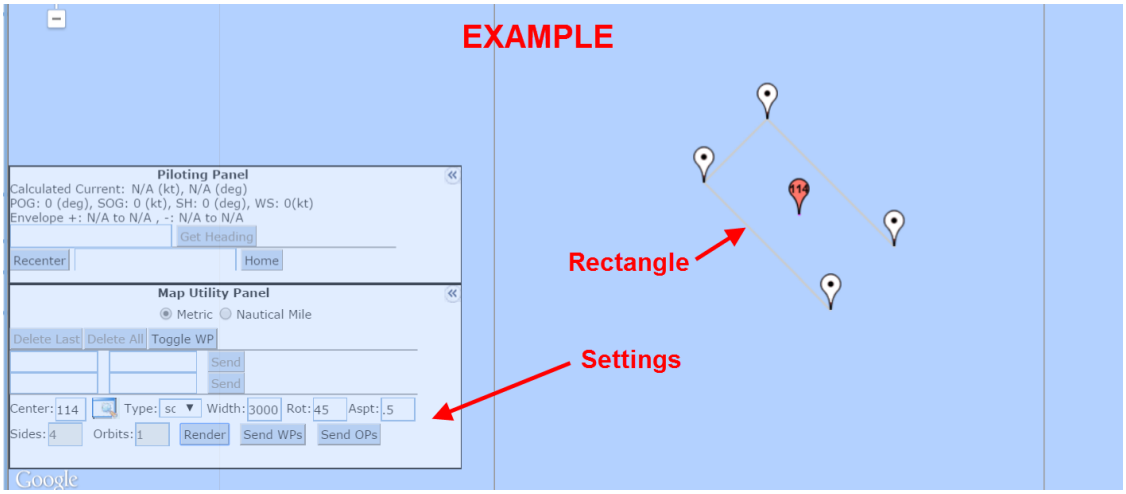
The Sentinel Table, Graph, and Map displays have been updated to new format:



New Vehicle Health Dashboard UI - click on the icon adjacent to Health to open display. The Vehicle Health display includes a Vehicle Health Summary:

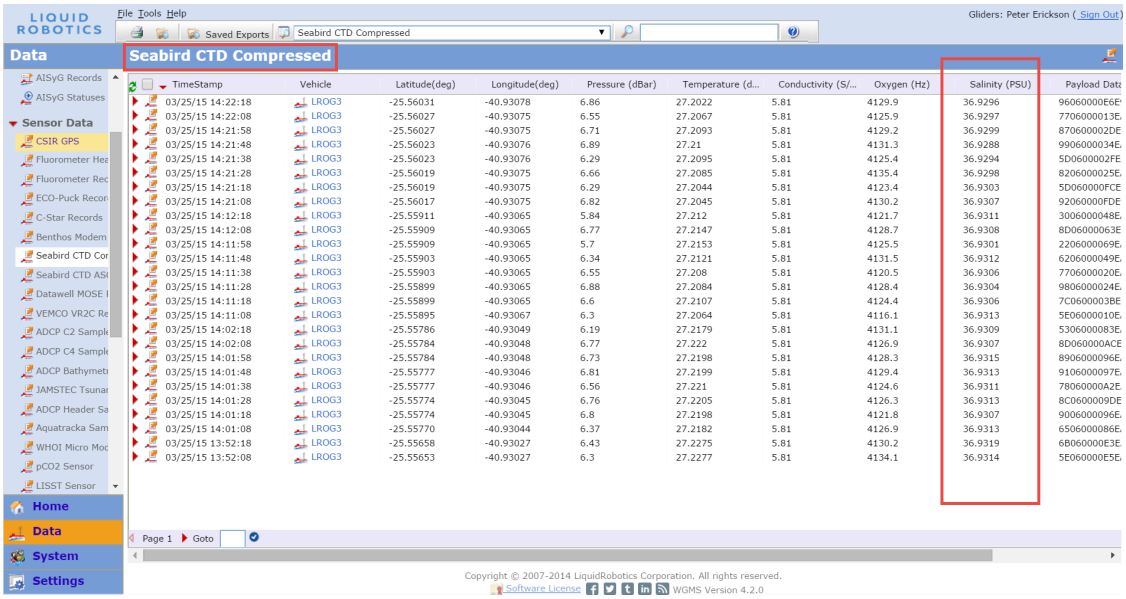


Rectangular Operating Regions can now be generated using the Operating Polygons tool in the WGMS Map Utility.

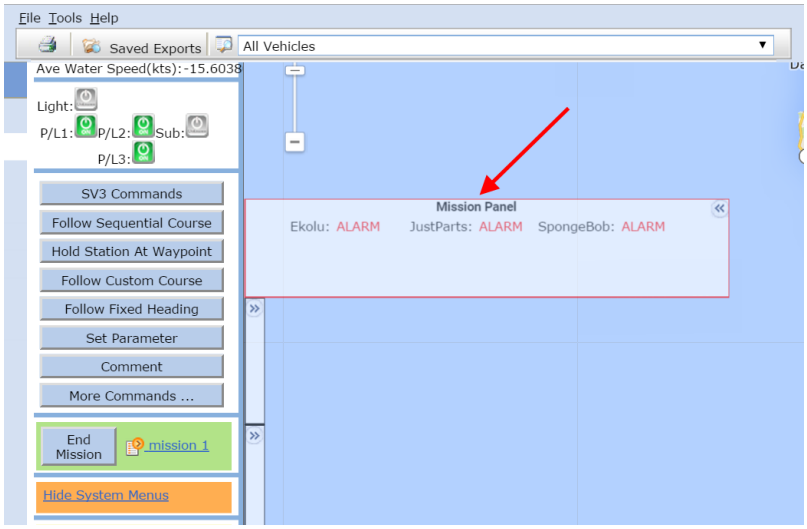


In the example, Waypoint 114 is selected as the center for the Rectangular Operating Region, the "Square" Type is selected, then a Width of 3000 meters with an Aspect Ration (Aspt) of .5 renders a 3000 X 1500 meter rectangle centered on Waypoint 114. The Rotation (Rot) of 45 orients the rectangle at a 45 degree angle.

Add **Salinity (PSU)** calculation column to Seabird CTD Compressed data display:



New Mission Panel overlay on WGMS Position Map:



New Features

HYP-1591	telemetry should have the actual power number on SV3 and not max at 655
HYP-1638	WGMS reports not reliable
HYP-1665	Map Utility: Add a rectangle function in the wapoint/op poly construction tool. Allow entry of X and Y lengths based on mid point.
HYP-1679	Vehicle Health Dashboard
HYP-1680	Vehicle Health Dashboard UI
HYP-1681	Vehicle Health Dashboard API
HYP-1710	Sentinel Service to publish manifest to render the command window
HYP-1787	Sentinel Graph: Custom Bearing
HYP-1788	Sentinel Map, Graph, Table: update to new format
HYP-1796	Add Salinity calculation to Seabird CTD sensor display
HYP-1797	Indicate on map next to vehicle icon alarm on

Improvements and Tasks

HYP-899	Separate Web Services to run on WGMS API server
HYP-1537	Commands sent to the wrong vehicle by mistake
HYP-1593	Make WGMS capable of configuring the XEOS Resilient Tracker
HYP-1701	Clear all alarms as Admin
HYP-1778	Sentinel Map: buffer AIS data
HYP-1779	Sentinel Map: stream data
HYP-1780	Sentinel Map: improve drawing speed
HYP-1782	Sentinel Map: Panels layout
HYP-1783	Sentinel Map: show AIS data from Sentinel
HYP-1789	Sentinel Map: load complete and AIS Play Range indicators

HYP-1800	Allow for vehicle-tracker-service move to any org (regardless of hierarchy) Refresh results

Bug Fixes

HYP-769	Paging through telemetry table is very slow
HYP-1118	Nacking Custom Course Commands
HYP-1120	User experience - Map moves with mouse even though left button is not held down
HYP-1489	Duplicated power records in WGMS
HYP-1539	Vehicle Stopped Updating in WGMS
HYP-1544	WGMS SV3 commands parameters not updating
HYP-1564	Custom Course 'No Defined Waypoints' Error
HYP-1569	Set Status Value Range Error
HYP-1587	Missions: Images are not saved in Catalog Images
HYP-1597	Unable to export Related Combined Outputs
HYP-1600	User password did not save on power user.
HYP-1607	active op polygon does not alarm if inside another actively alarming polygon
HYP-1608	Resilient tracker wrong units for power
HYP-1650	The "Now" option from "Map Option" is not activating Now button from Home and vice versa.
HYP-1651	AIS NMEA Strings: An error message is shown when the user tries to open a record
HYP-1654	WGMS doesn't display an alert when the user leaves the "Serial Number" empty, in order to create a Iridium Modem part
HYP-1678	Timepicker: Dates should be synchronized when using "Date Range" mode
HYP-1688	In the "Vehicle/Waypoint" when the user exports the Waypoint and adds "Status" option, the system allows to enter characters and numbers on the Text Field
HYP-1691	When the user tries to export using Latitude or Longitude options, the "relatedOn" icon of Latitude or Longitude is disabled.
HYP-1700	Default event definitions are not correct
HYP-1732	WGMS Displayed Nav Mode
HYP-1750	Moving an SV3 vehicle to a new org did not result with manifests download
HYP-1773	Lat/Long display not working correctly WGMS
HYP-1776	Data from pre-2015 in CSIR org
HYP-1785	When the user changes the format time and then changes of vehicle WGMS displayed an error message.
HYP-1790	creating note for user lands on logged in user
HYP-1804	Assigning users to fleet causes a crash Refresh results

Changes in Version 4.1.8

Principal Changes

The 4.1.8 release includes:

1. Added App Services support for WGMS, which will enable it to record telemetry and issue commands to external apps that perform functions outside of WGMS.

2. New sensor support in Data Views for Sentinel, the GPSWaves Sensor, and Weather Records.

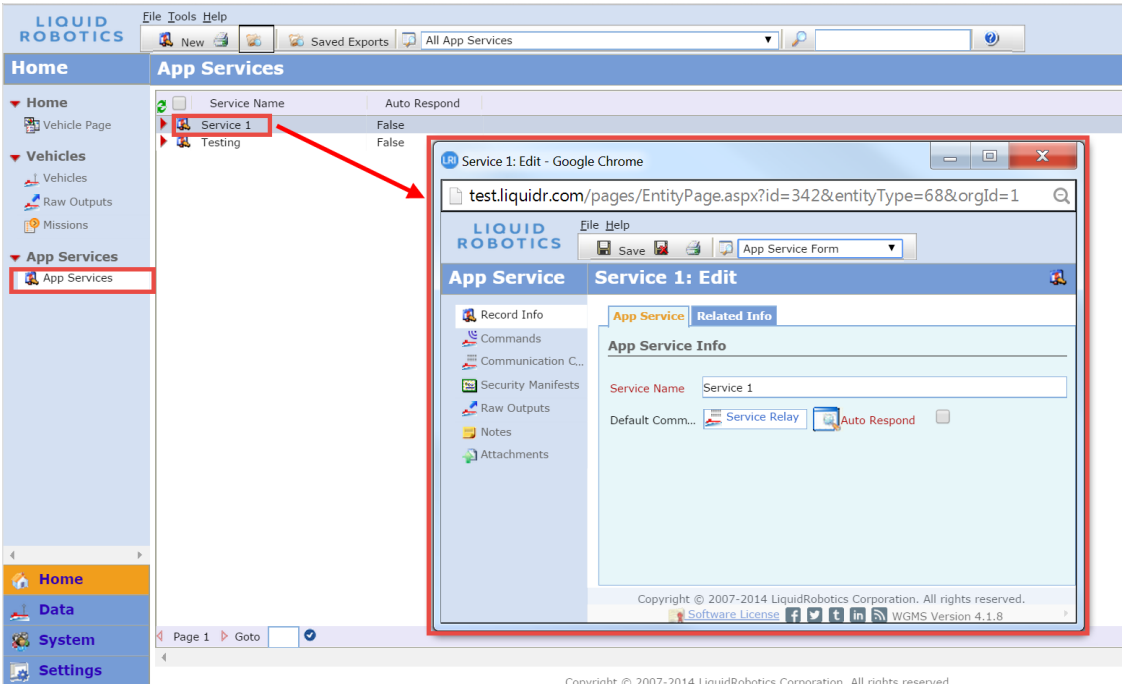
3. Support migration to Azure by changing some DB queries to be more compatible with Azure DB.

4. Many important bug fixes.

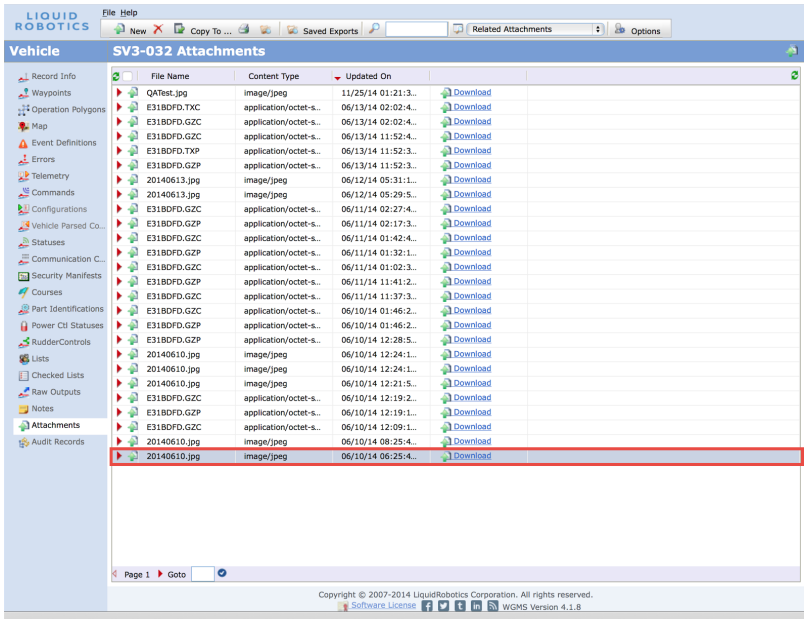
User Experience Changes

New sensor support in Data Views for Sentinel Format 2, and 3, GPSWaves Sensor, and Weather Records.

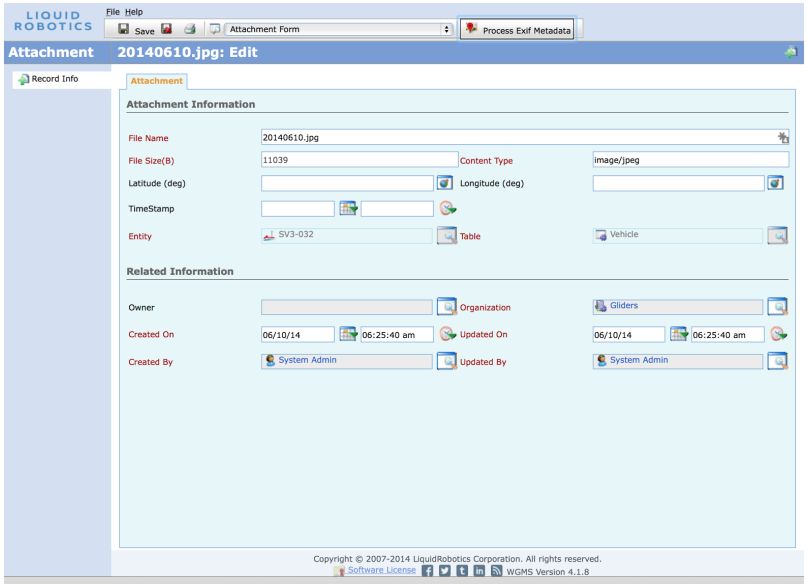
A user interface has been added to WGMS to display the status of Regulus services.



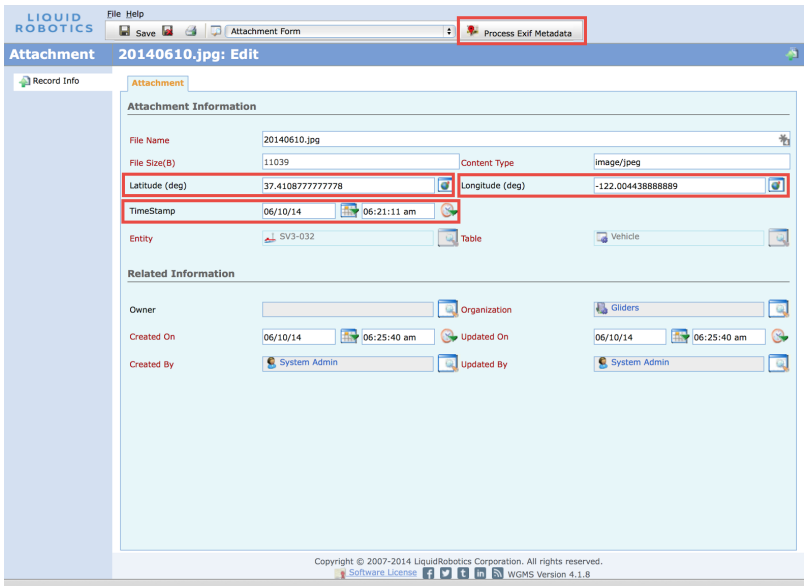
Process EXIF tags are available for downloaded images (thumbnails) in WGMS vehicle attachments. A web service has been added to include the time and location (latitude and longitude) for each image generated by the SV3 camera. A button in the toolbar of the vehicle **Attachment** form enables EXIF tags for attached JPEG images. Click on an image attachment:



An Attachment Form for the selected image opens:



Click on the **Process Exif Metadata** button to display the **Latitude**, **Longitude** and **TimeStamp** for the image.

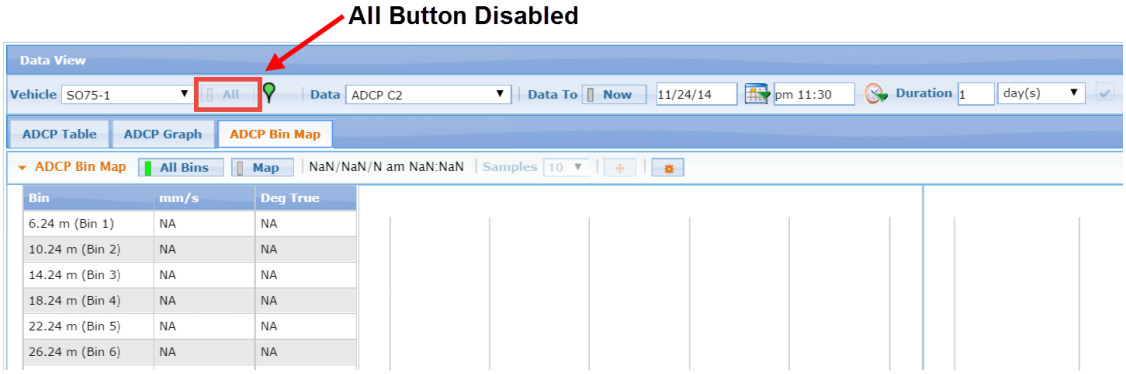


The Map Utility tool that renders shapes for courses and operating regions now lets you click and drag on circles to create ellipsis. You can also click and drag a side of a square to create a rectangle.

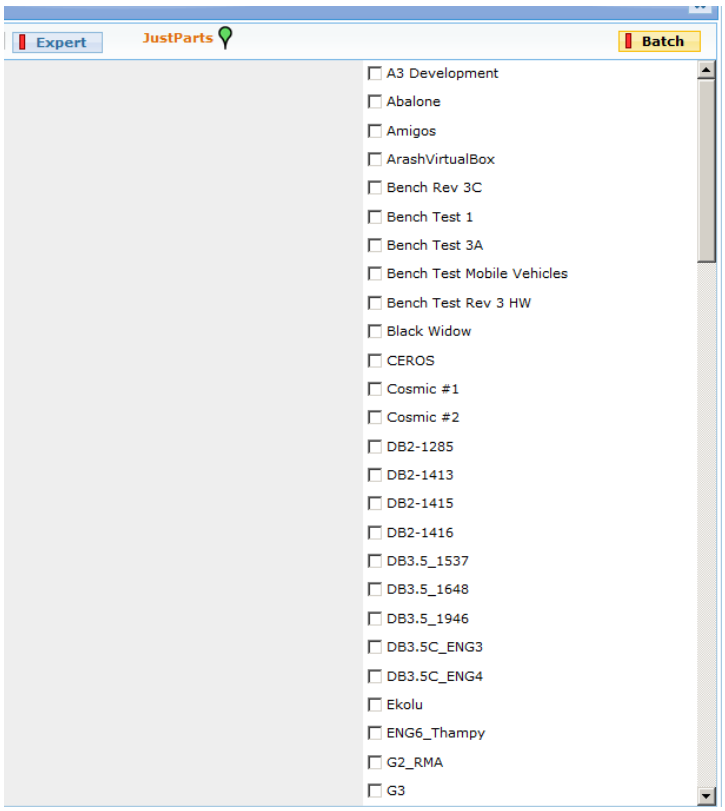
The WGMS help window can now be moved to a second monitor and if you close the help window, it will re-open to the place where you left off when the help window was closed.

When you select a Data View from the WGMS Dashboard, it now opens as a full screen, instead of a window and it remains a full screen when the browser is resized. Data View options will continue to open as windows on mobile devices.

The **Show All** button is now disabled on the ADCP C2 Bin Map data view.



You can now issue a command to multiple SV3 Vehicles within the same WGMS Organization from the SV3 Commands Window. By selecting **Expert** commands in the **Services** or **Devices** tool bar, a **Batch** button will appear. When the **Batch** button is selected, a check box for each SV3 Vehicle in the WGMS Organization will appear. When you issue a command, it will be issued to all of the selected Vehicles simultaneously.



New Features

HYP-1704	Support Sentinel Shore Side Comms
HYP-1705	Relay to handle Sentinel formatted packets
HYP-1706	Support DB schema and entity storage for services and their messages
HYP-1707	Create a UI for service messages
HYP-1708	Support trial migration to SQL Azure for WGMS database

HYP-1710	Sentinel Service to publish manifest to render the command window
HYP-1711	Process EXIF tags from downloaded images (thumbnails) attachments
HYP-1713	Modify Firmware Level Part to reflect new Regulus version support
HYP-1715	Pilot tools aspect ratio for shapes rendered for courses and op-regions
HYP-1731	SV3 Read Waypoint ACK
HYP-1733	Support a new type 0x91 payload message for reporting generic payload telemetry
HYP-1744	Adjust how long before WGMS ignores Command Acks
HYP-1761	Allow custom SV3 commands to be issued to multiple vehicles

Improvements and Tasks

HYP-1684	LROG: Add GPS Wave Height and Weather Station Sensor Data to Custom Reports in WGMS
HYP-1717	WGMS Help Feature - 1) Need to be able to move help pop up window once opened to second screen - 2) When you open the window again, the help function has returned to the beginning, not where you were
HYP-1718	Data View open full screen dialog
HYP-1721	"Show All" Button should be disabled on "ADCP C2 Bin Map"

Bug Fixes

HYP-1714	IMEI's, Unique ID's, Auto Respond and Multiple Vehicle are sporadic when moving vehicles
HYP-1727	manual (keyboard) entry of date/time causes problems
HYP-1734	VEMCO VR2C Data doesn't display data
HYP-1736	"Write File Init" fails when attaching a new file on Safari
HYP-1739	The wrong '.' is used when splitting a file name into 8.3 format when doing file uploads
HYP-1741	Custom Report/"Weather Records" sensor: The information on TimeStamp is not correct when the user selects"tt" time format first and searches information using "Weather Records" sensor
HYP-1742	Home: Map Utility and Piloting Tools are overlapped, when the user tries to create an OP or a WP using Map Utility tool.
HYP-1745	Quotes in SV3Command string fields are not being escaped
HYP-1746	Data View: The "Duration" field is displayed a text when the user enters to the "Date View" window
HYP-1747	Data View: WGMS shows an alert when the user tries to create an OP/WP using Map Utility in Sentinel Map
HYP-1748	"Data View" widget doesn't show
HYP-1749	WMGS Data View is set to view in PT time zone causing confusion for users who are using UTC time zone when attempting to view data
HYP-1752	App Services: WGMS shows a server error, when the user clicks on "Copy From" button

HYP-1754	Auto-avoid icon is usually not "lit up" or colored when auto-avoidance is actually on
HYP-1759	The WGMS version should be displayed on the bottom of the page

Changes in Version 4.1.7

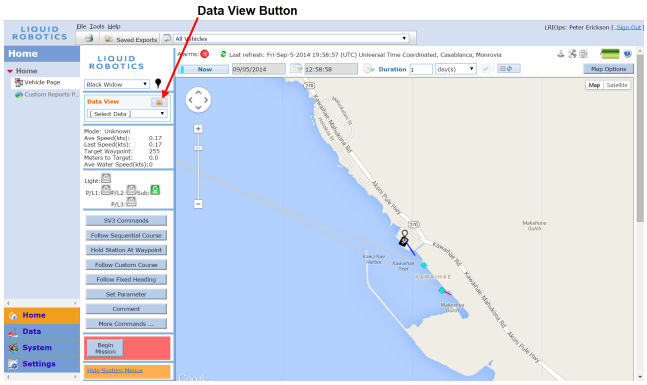
Principal Changes

The 4.1.7 release includes:

1. Improvements to the WGMS Dashboard UI incorporating more HTML 5 elements.
2. The SV3 local web page is incorporated into the vehicle form.
3. Virtual Relay commands are now allowed to be timed out and retried on Iridium (SV3 firmware update required).
4. Many bug fixes.

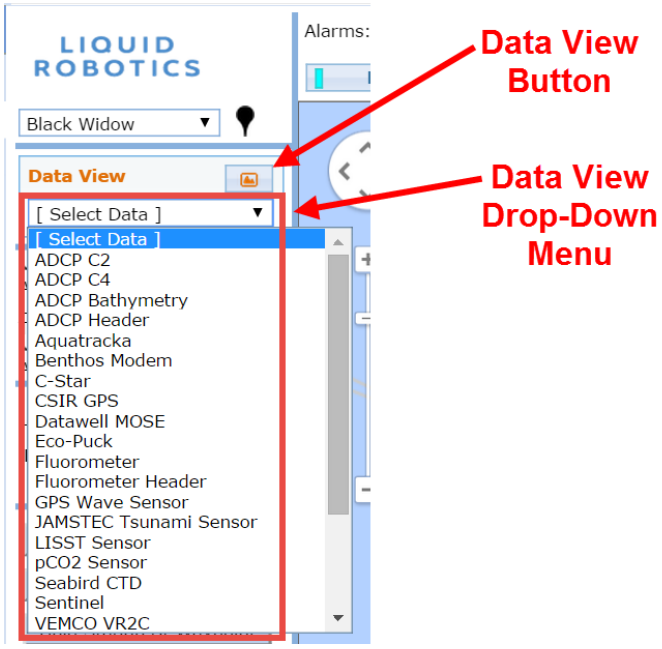
User Experience Changes

A **Data View** button has been added to the WGMS Dashboard for easy access to custom reports.

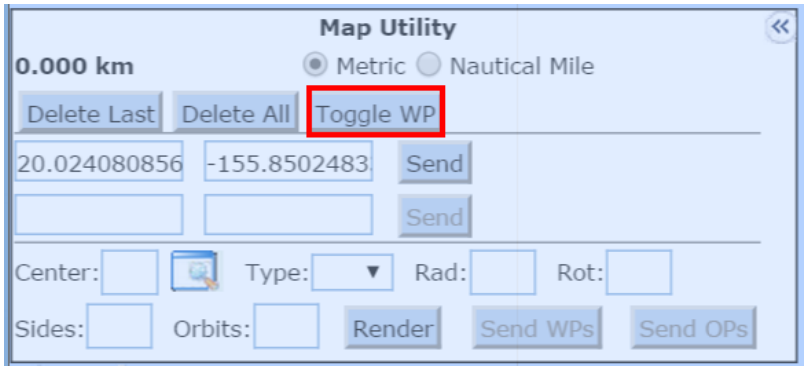


The **Data View** drop-down menu is used to select the type of data that will be displayed in a custom report when the **Data View** button is clicked.

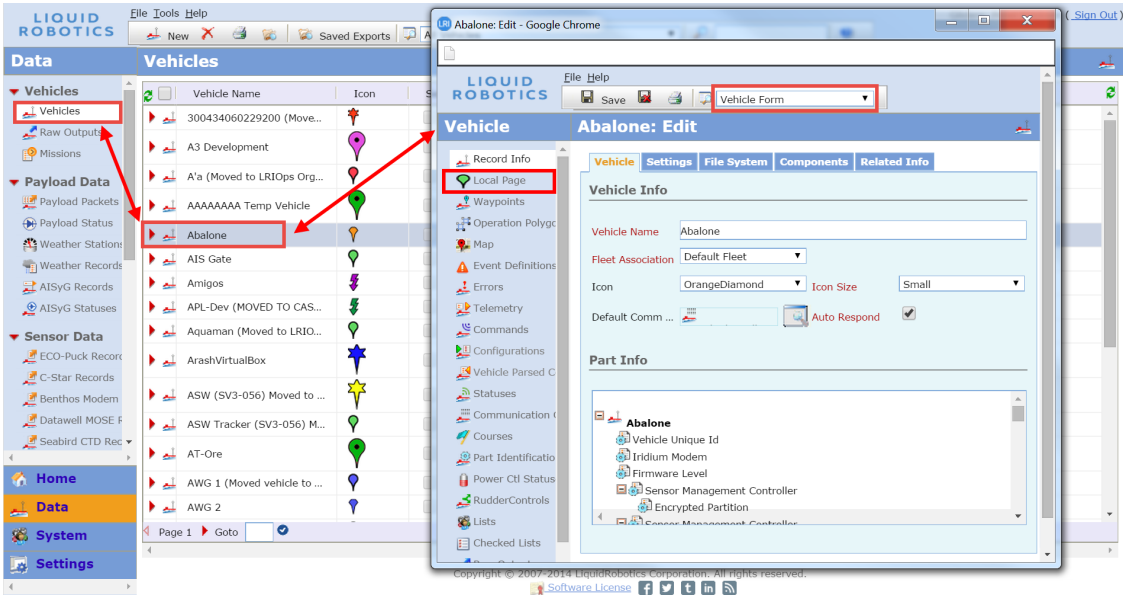
When you click on the **Data View** button, custom reports for the type of data selected in the Data View drop-down menu will be displayed. The **Data View** drop-down menu will continue to display the most recently selected data type, until a different data type is selected.



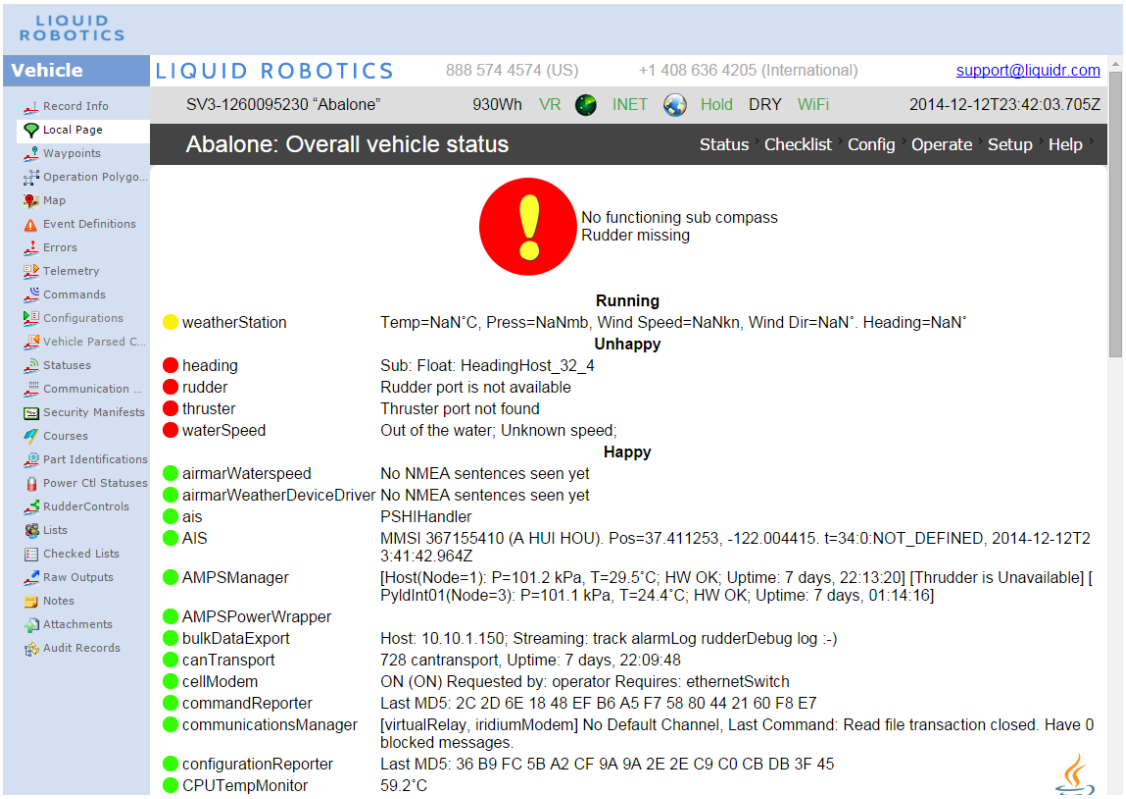
The **Toggle Waypoint** button state (in the Map Utility) is now preserved when the screen refreshes.



A proxy server has been set up to handle secure SV3 vehicle Web page (local page) access utilizing Active Directory (AD) authentication credentials. The SV3 Vehicle Web page (local page) can now be accessed from the WGMS Vehicle Form.



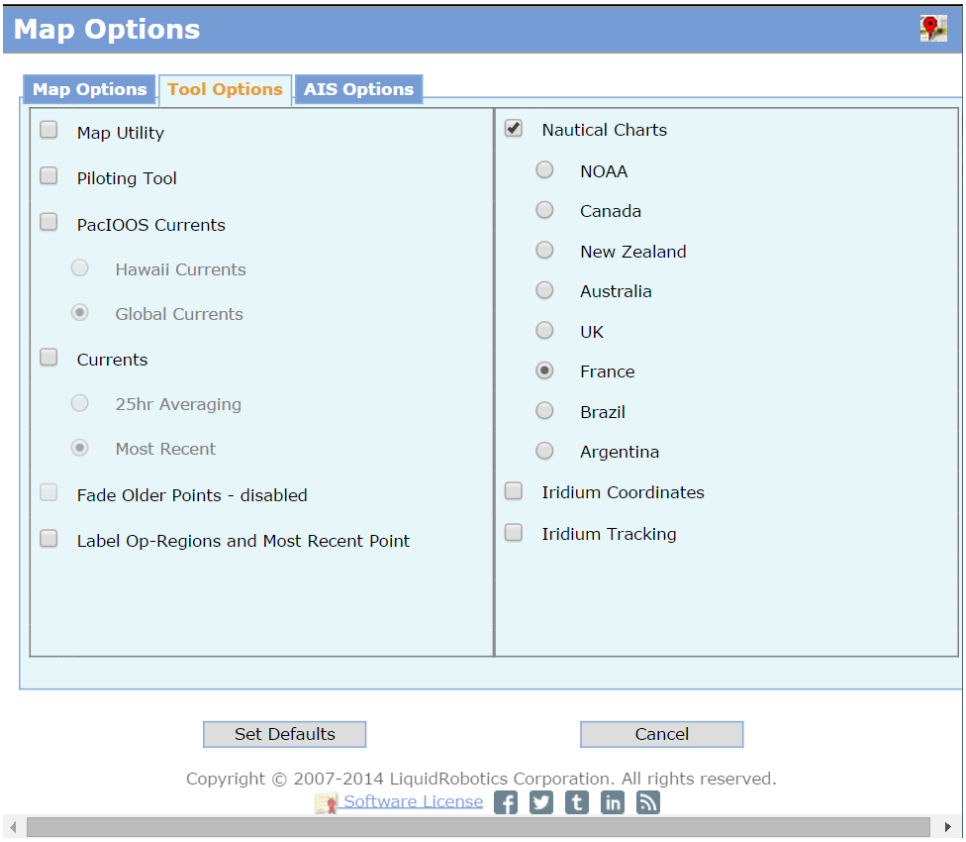
Click on **Local Page** in the side bar of the **Vehicle Form** and the Web page for that Vehicle will appear.



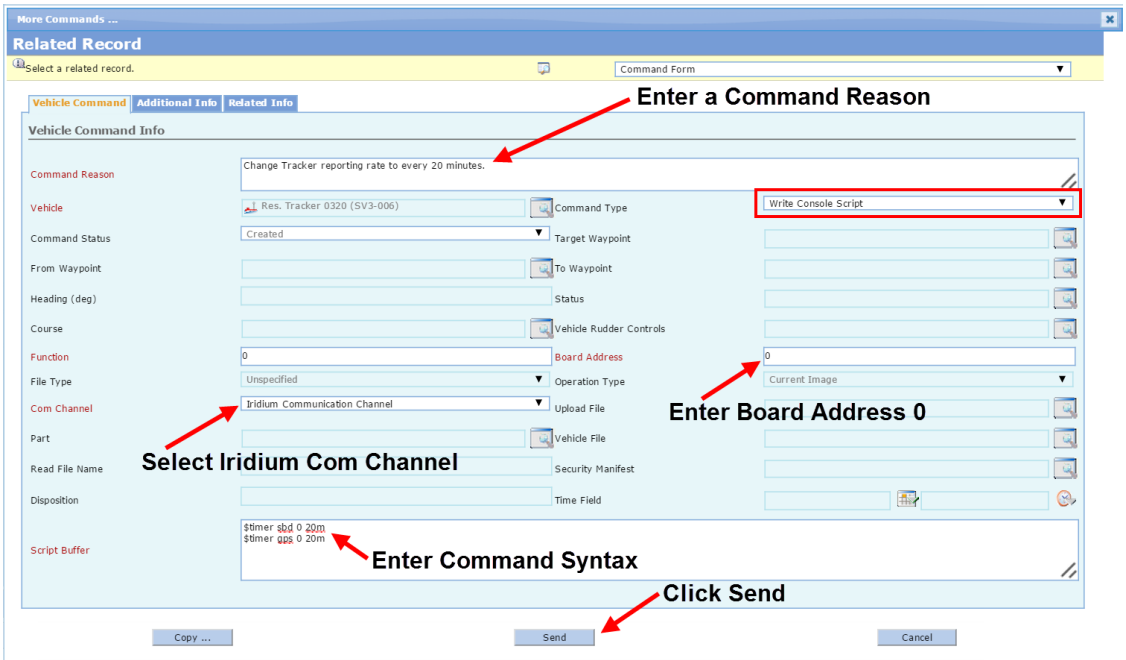
New Payload Devices can be parsed in the CONFIG json.

A **Clear All Alarms for this Vehicle** capability is now exposed to root users only.

French nautical charts are now available in the WGMS Map Options.



Commands can now be issued to the SV3 Resilient Tracker by issuing a **Write Console Script** command from a WGMS command form. For more information, see the *Wave Glider® SV3 Integrated Sensor User Guide* for the *Xeos Technologies Rover (Resilient Tracker)*.



New Features

HYP-1516	Preserve Toggle waypoint button state through refresh.
HYP-1522	Button on Main Page that redirects straight to "Custom Reports" page.
HYP-1572	Allow SV3 vehicle local page to be accessed via vehicle form on WGMS.
HYP-1573	Setup proxy to handle secure SV3 page access utilizing AD for authentication.
HYP-1574	Cleanup Camera Client to work with new SV3 Camera.
HYP-1590	Parse the new Payload Devices in the CONFIG json.
HYP-1598	Add clear all alarms for this vehicle exposed to a root user.
HYP-1657	Add France layer to Nautical Charts.
HYP-1682	Tracker to allow for Write Console command issued.

Improvements and Tasks

HYP-1501	Change the email subject when WGMS loses communication with Virtual Relay.
HYP-1513	Request to streamline the Fast Mailbox Check ON/OFF procedure
HYP-1521	LROG: ADCP data should display the magnitude and direction on single graph.
HYP-1526	LROG: Requested Changes from Conoco Philips (see description for details).
HYP-1530	LROG: Request for ADCP data display to update automatically (graph display does not & will not refresh).
HYP-1540	Home: WGMS doesn't show the "Mode" correctly when issuing "Hold Current Position" command.
HYP-1549	Need to re-name the Vehicle Page tab to the Dashboard tab in the Home Page sidebar.
HYP-1584	Pilot Tool App: The status of the WPs should be "Saved not sent", when "Copy but don't send" option is selected by the user.
HYP-1592	Courses: WGMS should not show "Send" option when creating one from zero.
HYP-1621	Need the Pilot Tool to copy the "Owner" field to the new org.
HYP-1622	WGMS Provisioning - Add a Check Box for Technical Users on User Profile (This allows us to identify WGMS Technical Users).
HYP-1659	Update the ADCP custom report to have m/s or cm/s.
HYP-1663	Change "Custom Reports" Link.
HYP-1670	SV3 commands: WGMS should resize the SV3 UI Commands properly.

Bug Fixes

HYP-634	Calculated columns don't sort.
HYP-1454	Added Commands- WGMS should refresh data from top information, when changing the information.
HYP-1466	Export download link to bypass DLB at gogrid to avoid timeouts.
HYP-1545	iPhone and iPad browsers crash when more than 4 gliders (and their waypoints) are enabled.
HYP-1547	Reduce the occurrence of un-acked commands when VR is marginal.

HYP-1550	File button in Home/Vehicles/System/Settings page toolbars serves no purpose.
HYP-1551	The Help button and the Help icon on the Home page toolbar should be removed.
HYP-1568	IE11 Overall System: WGMS opens the form of the "source" entity, when trying to perform a "Copy From" action if the user double -clicks the record.
HYP-1570	(Safari) Overall System: WGMS has problems rendering the forms on mac.
HYP-1575	In the "Vehicle/Audit Records" menu, in the "Edit Audit Record" if the user clicks on the "Parent Record " text the WGMS displays an error message.
HYP-1577	When the user issues a "New Waypoint" command with invalid information WGMS displays an error message.
HYP-1578	When the user edits user information and leaves the "email" field blank the "save" and "save and close" buttons stop working.
HYP-1579	In the Record Customization/Fields/Selects a System Error message is displayed, when pressing the "Copy from Another Select" button.
HYP-1580	When the user issues the Get File List command with an invalid number(4745) in the Storage Address field ,WGMS displays a server error message.
HYP-1581	The user cannot print the preview of the Role list, in "View Related Role Limits"
HYP-1582	When the user enters a decimal number on the page navigation tool WGMS displays a system error message.
HYP-1583	Map Utility (FF Only): WGMS doesn't refresh the fields on "Map Utility" box, when clicking on "Refresh" icon.
HYP-1585	Event Definition - "Towing Alarm" alarm should not be in the "Alarm Type" list,when the user tries to edit some alarm due it is a deprecated alarm.
HYP-1586	Event Definition - "Towing Alarm" alarm should not be in the "Alarm Type" list,when the user tries to edit some alarm due it is a deprecated alarm.
HYP-1588	Home/Missions: When length of "Mission" name is 9 or more characters WGMS shows the name in blank.
HYP-1589	Part Info (FF/Only): "Part info" box is too small, when maximizing Vehicle Form.
HYP-1595	Custom Reports - Changing the duration of data displayed is not user friendly.
HYP-1619	SV3 Commands Truncate ParamLabels.
HYP-1623	Allow for out of order and mis-ordered file blocks to be re-constructed on file read.
HYP-1624	SV3: "Script buffer" field must be marked as required, when issuing "Attach script to WP" command.
HYP-1625	SV3: WGMS shows an error message when the user leaves empty the "Script buffer" field and tries to send the "Attach Script to Waypoint" command.
HYP-1627	In Map Options, the "Zoom Level" field allows enter characters.
HYP-1629	When the user enters a big page number on the page navigation tool WGMS displays a system error message.
HYP-1630	The user can activate NOAA chart from Map Options, if it is deactivate in "Org Admin Form"
HYP-1631	Custom Report (Chrome/Only): DateTimeControl field is refreshed every time the user changes the Data source.
HYP-1632	Escape Quote from SV3 Command and Config files.
HYP-1633	Home Refresh: The user is blocked to create/render WP/OP, if there was information in Map Utility box, when clicking on "Last Refresh" icon.

HYP-1634	SV3 Commands- "Arrival Distance" command is sent, when distance is a negative number.
HYP-1640	Payload type cannot be entered as a numeric value when creating an export for payload packets.
HYP-1641	The form is not closed, when the user clicks on the "cancel" button.
HYP-1642	Modify Iridium Relay to handle MO Confirmation Packets.
HYP-1643	Custom Report: Dragging functionality is not working.
HYP-1644	Line Following status icon not functional.
HYP-1645	Custom Report: Each time the user access "Custom Report" section or switches vehicles WGMS loses its UI, showing a "blank loading"
HYP-1647	Home: "Follow Custom Course" form is displayed when the user submits any information on the fields of timepicker functionality.
HYP-1648	Home: The user cannot close the "Alarm notification" window, when clicking on 'X' button.
HYP-1652	The "Fast Mailbox Check " tooltip is misspelled in the "Home" section.
HYP-1653	Text from System Information-based alarm not un-escaped properly in mouse-over text.
HYP-1656	SV3 use navigation mode from telemetry to calculate stats.
HYP-1660	ONLY IE - No data loaded when accessing "SV3 Commands" window.
HYP-1661	Closed Frames from command buttons are displayed again after principal window resize.
HYP-1662	SV3 Commands - The "SV3 Commands" window is not closed, when the user clicks on "Close" button.
HYP-1664	SV3 commands: The user is not able to receive a response when issuing commands.
HYP-1667	SV3 Command Suite not functioning.
HYP-1668	Home: Dashboard is lost when switching between vehicles.
HYP-1669	Issues with NakWithDescription.
HYP-1683	SV3 Virtual Relay Marginal: If the command is Timed out before it is retried by Iridium it will never be retried.
HYP-1686	"More Commands" window doesn't auto-close when command is sent in WGMS.
HYP-1687	WGMS is crashing when the user uses the "tt" time format first and tries to switch vehicles on "Dashbord" and "Custom Report" sections.
HYP-1689	Mobile devices to use legacy dialog boxes.
HYP-1690	Resizable dialog.

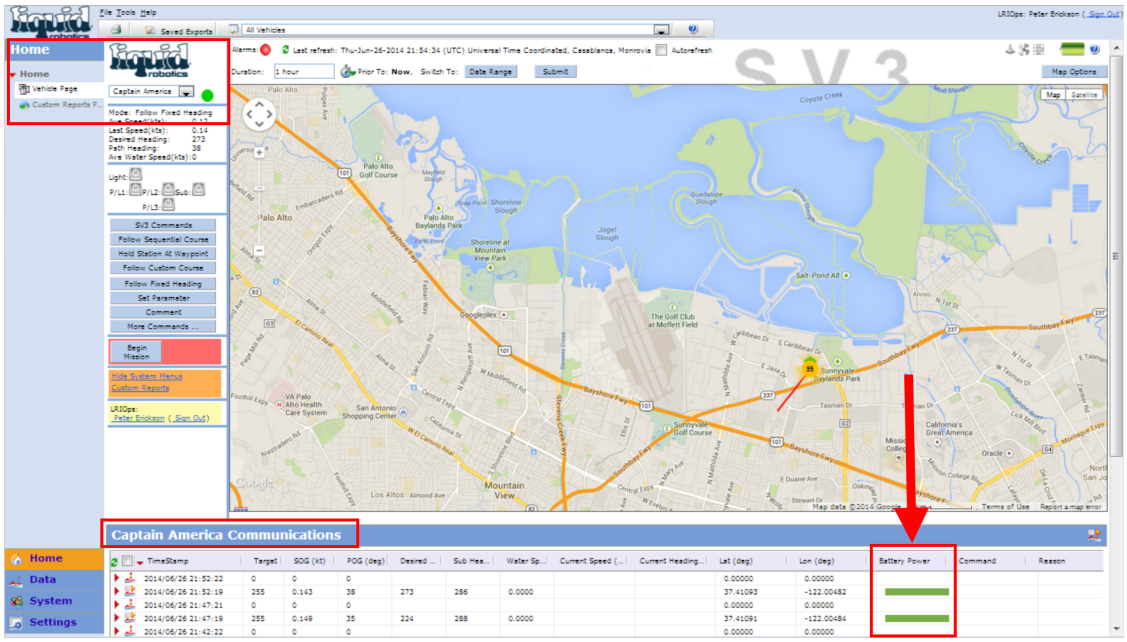
Changes in Version 4.1.6.1

Principal Changes

WGMS 4.1.6.1 includes 2 new features in the UI and 4 bug fixes.

User Experience Changes

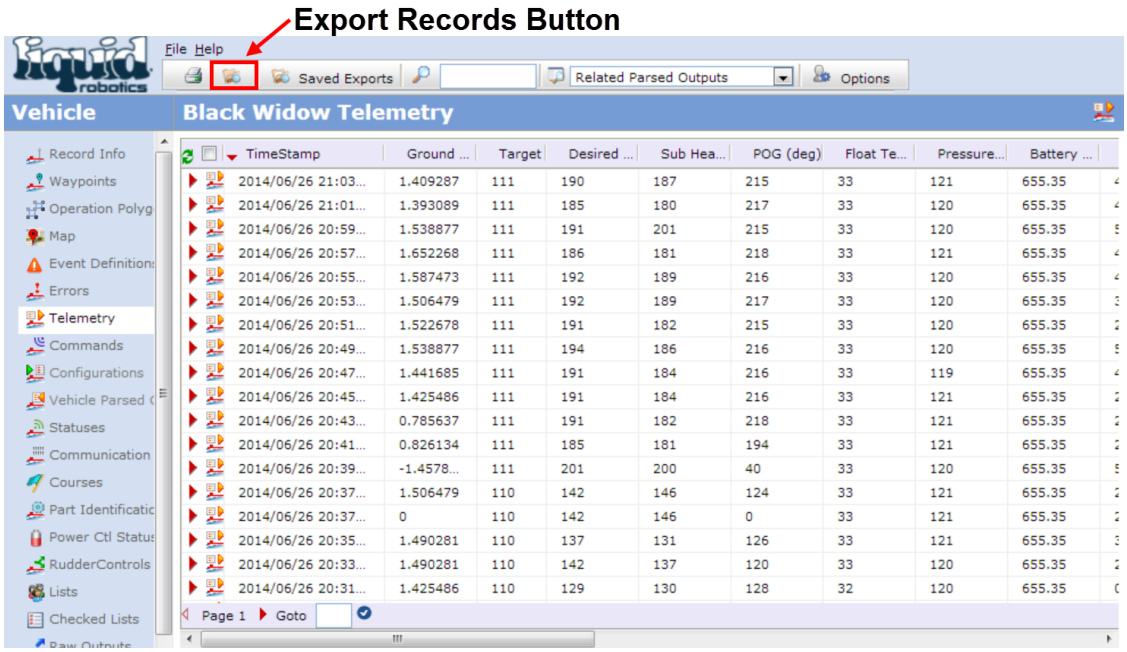
In the **<Vehicle Name> Communications** window at the bottom of the **Home** page for the selected Vehicle, the **Battery Power** column displays a colored bar to indicate battery power status. The bar is green for operational, yellow for low, and red for empty. With WGMS 4.1.6.1 this is the default display. You can revert to the legacy display by changing a setting for the Organization in the **Settings** page.



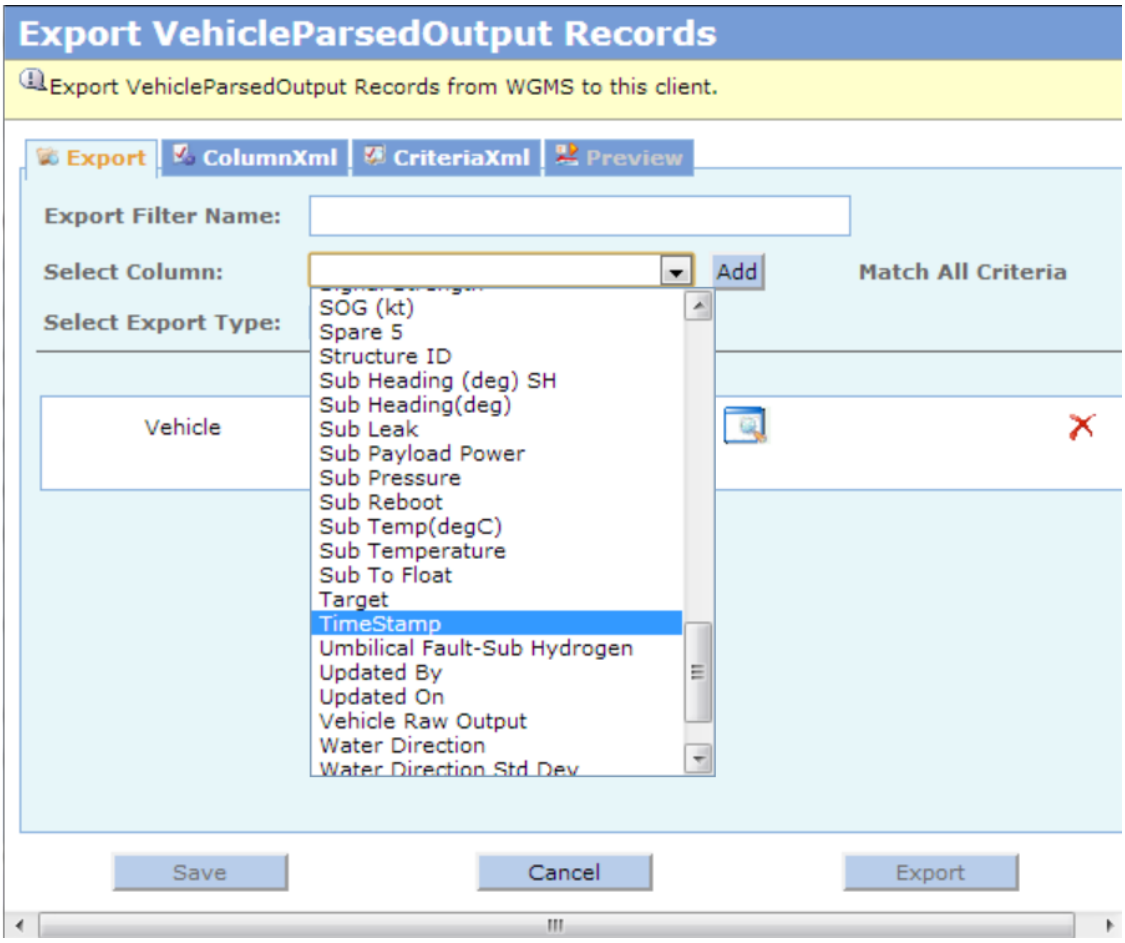
WGMS 4.1.6.1 provides optional pre-set Records Export intervals of:

- Last Hour
- Last 3 Hours
- Last 6 Hours
- Last 12 Hours
- Last 24 Hours
- Previous 7 Days
- Previous 30 Days

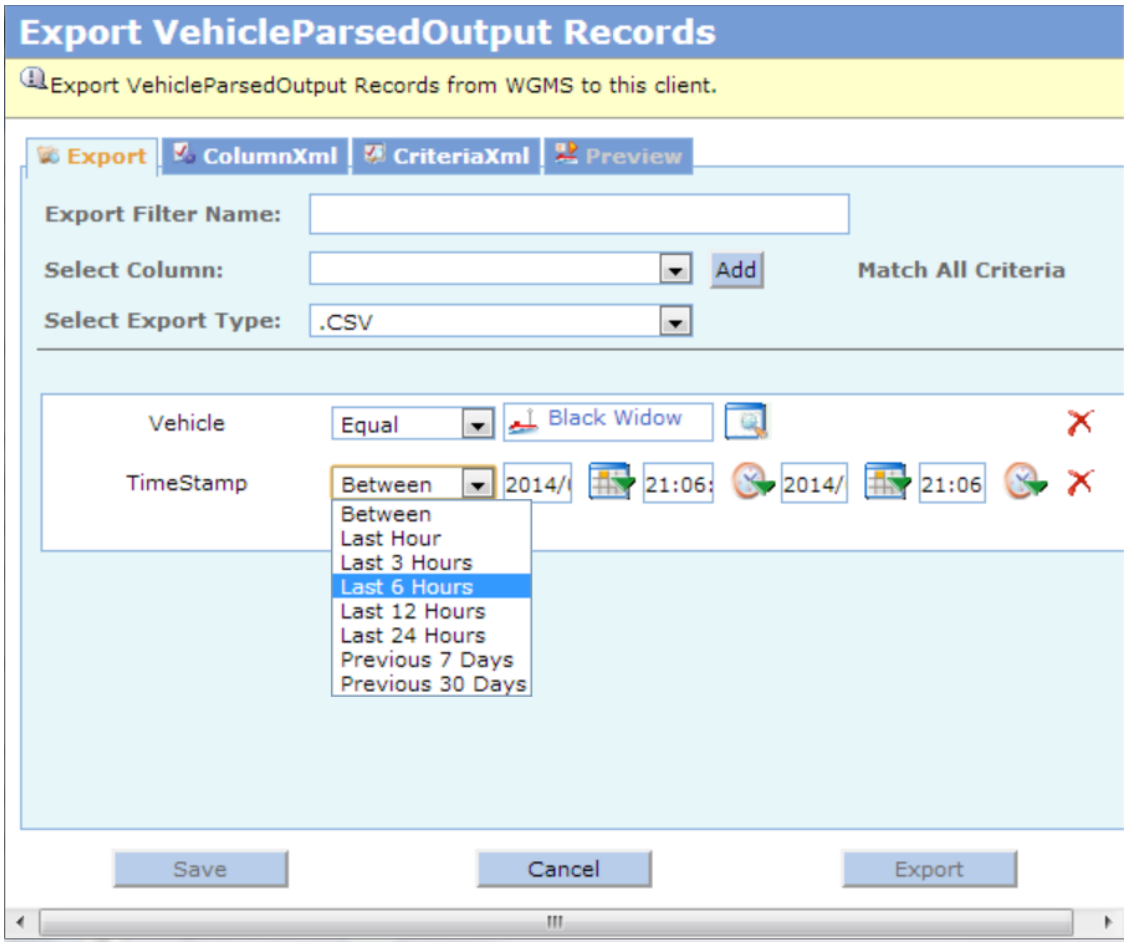
Click on the **Export Records** button in the tool bar at the top of the **<Vehicle Name> Telemetry** window to open the **Export VehicleParsedOutput Records** dialog.



In the **Select Column:** drop-down menu, select **TimeStamp** and click **Add**.



In the **TimeStamp** drop-down menu, select the time interval for the records export.



As in previous WGMS releases, you also have the option to specify a custom records export interval by selecting **Between** and setting a date/time range in the fields adjacent to the calendar and clock icons.

For information on how you can automatically export records at regular intervals using **curl** refer to the **WGMS Export Rest Services** chapter in the **WGMS Administrators Guide**.

New Features

HYP-1617	In the **<Vehicle Name> Communications** window at the bottom of the **Home** page, change the **Battery Power** column to display a graphic bar - the bar is green for operational, yellow for low, and red for empty.
HYP-1620	WGMS 4.1.6.1 provides optional pre-set Records Export intervals of 3 hours, 6 hours, 12 hours, 24 hours , 7 days, and 30 days.

Bug Fixes

HYP-1609	SV3 Commands Form does not populate empty tabs with message
HYP-1610	Certain Devices are not parsed by the UI code on the SV3 commands form

HYP-1612	Reading config and command json attachments needs to be returned in reverse order of creation
HYP-1618	Do not issue "retrieve debug buffer" command on alarms for SV3

Changes in Version 4.1.6

Principal Changes

The 4.1.6 release is centered around the migration of WGMS to HTML 5 resulting in new browser compatibility settings:

1. Internet Explorer 11 is supported on Windows (earlier versions of Internet Explorer are not fully compatible with HTML 5).
2. Chrome and Firefox are supported on Windows and Linux.
3. Safari is supported on Apple iOS.
4. Safari and Chrome browsers are supported on iPhone and iPad with iOS 7.1 only.

Other notable WGMS 4.1.6 features include:

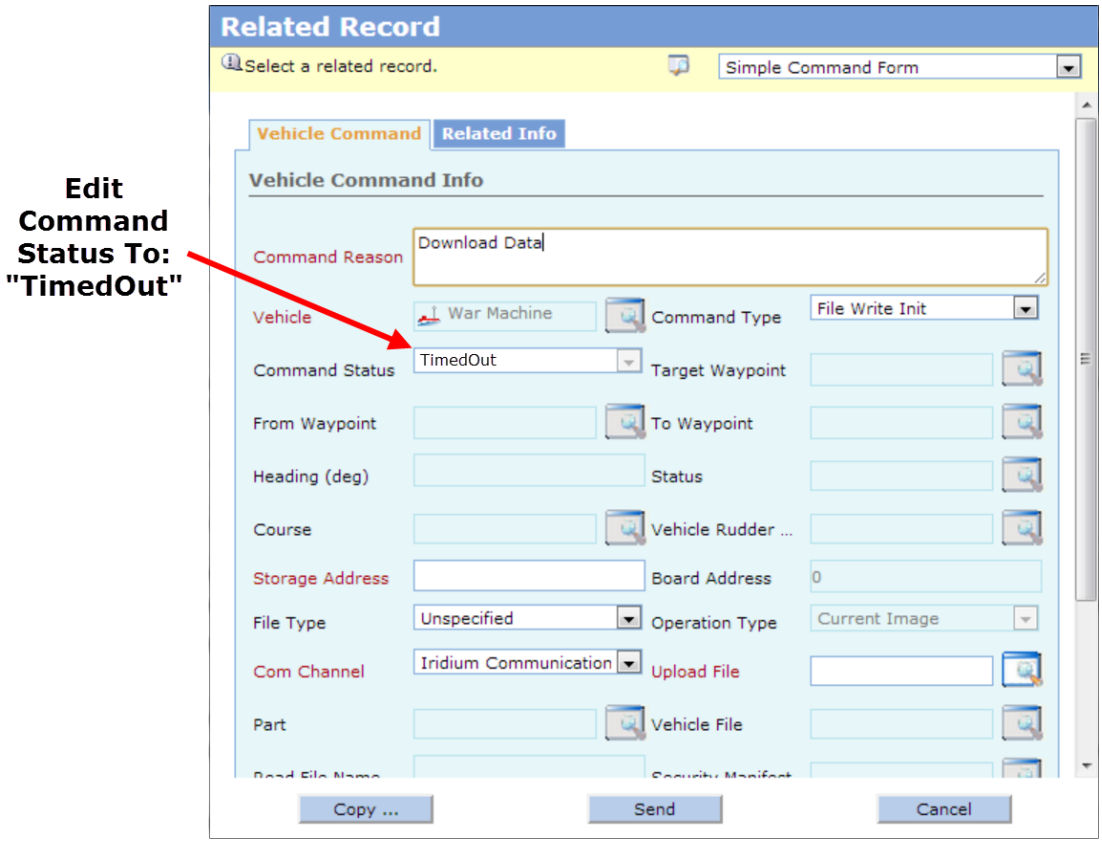
1. Better support for SV3 vehicles.
2. Improvements to data acquisition and additional support for compression and Multi-L2 packets.
3. Improvements to Custom Reports and the Sentinel display.
4. Support for version 2 Mobile WGMS features.
5. Numerous bug fixes.

User Experience Changes

The Help window is now scalable.

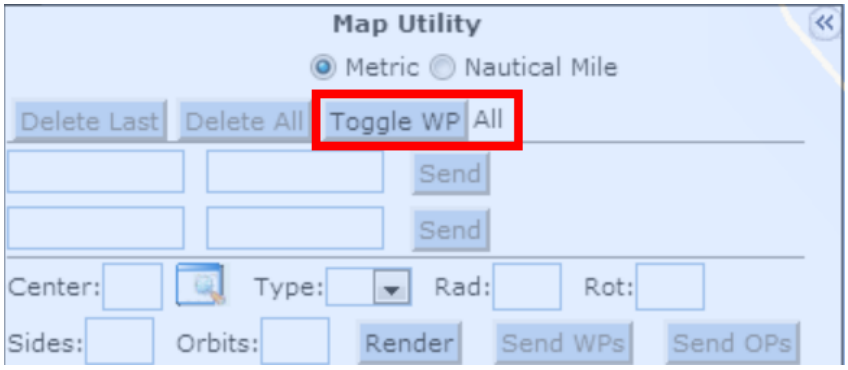
Improvements have been made to the usability of the WGMS **Map Options > Piloting and Map Utility** tools. See the WGMS online help or the *WGMS User Guide* for more information.

You can cancel a file transfer in progress by opening the command form for the **File Write Init** command that initiated the file transfer and edit the **Command Status** drop-down menu to **TimedOut**:

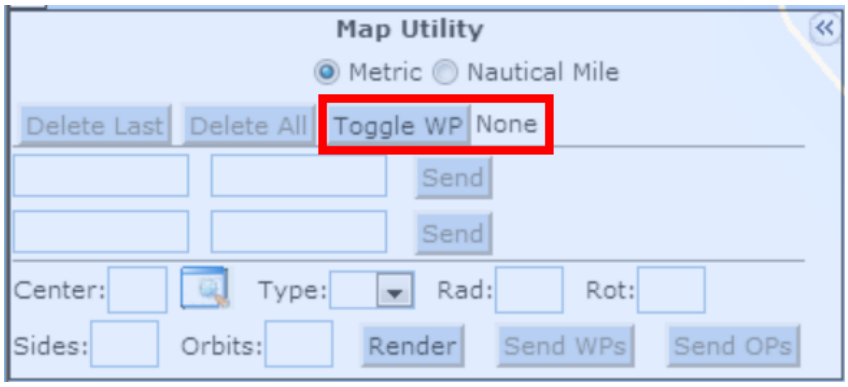


By clicking on the **Toggle WP** button in the **Map Utility**, waypoints can be displayed in one of three modes:

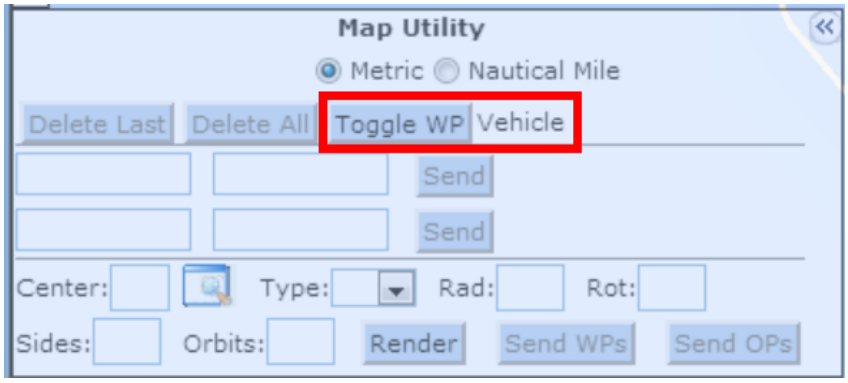
- **All** - displays all waypoints for all Vehicles displayed in the WGMS Dashboard.



- **None** - hides all waypoints for all Vehicles displayed in the WGMS Dashboard.

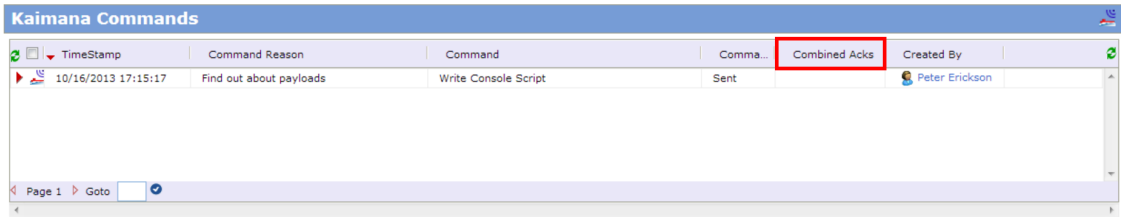


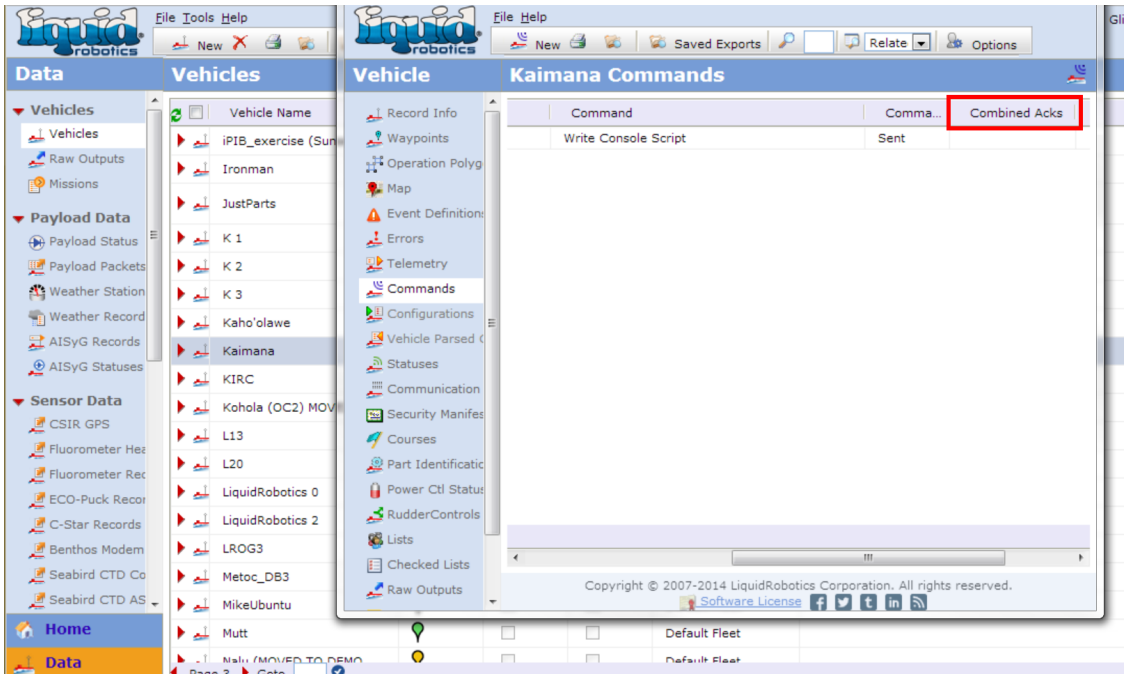
- **Vehicle** - displays only the waypoints for the Vehicle selected in the Vehicles drop-down menu.



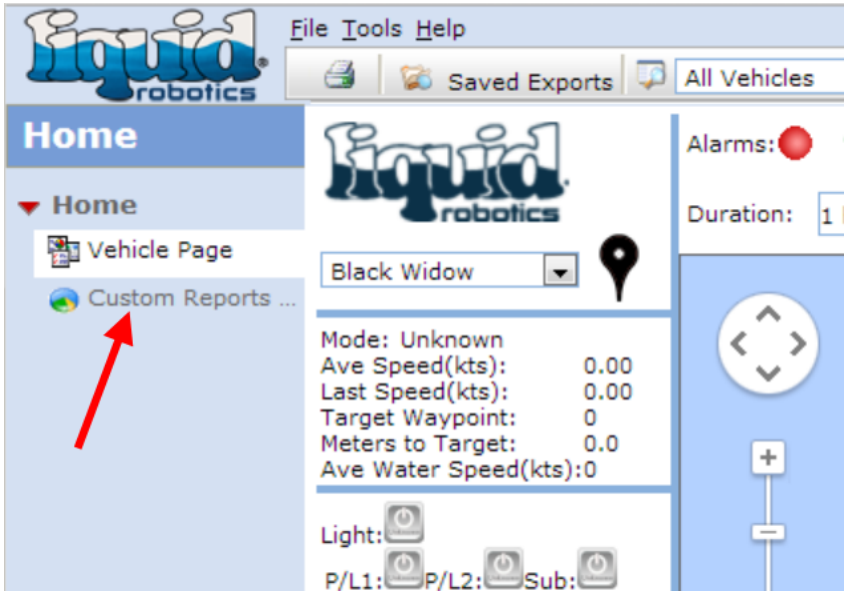
Obstacle Avoidance and Thruster status icons have been added to the WGMS Dashboard toolbar to indicate ON or OFF status:

A new **Combined Acks** column in the WGMS Dashboard Commands section and in the Vehicle Commands tab displays a single ACK representing the result of all interim ACKs sent as responses to a command that was issued.:



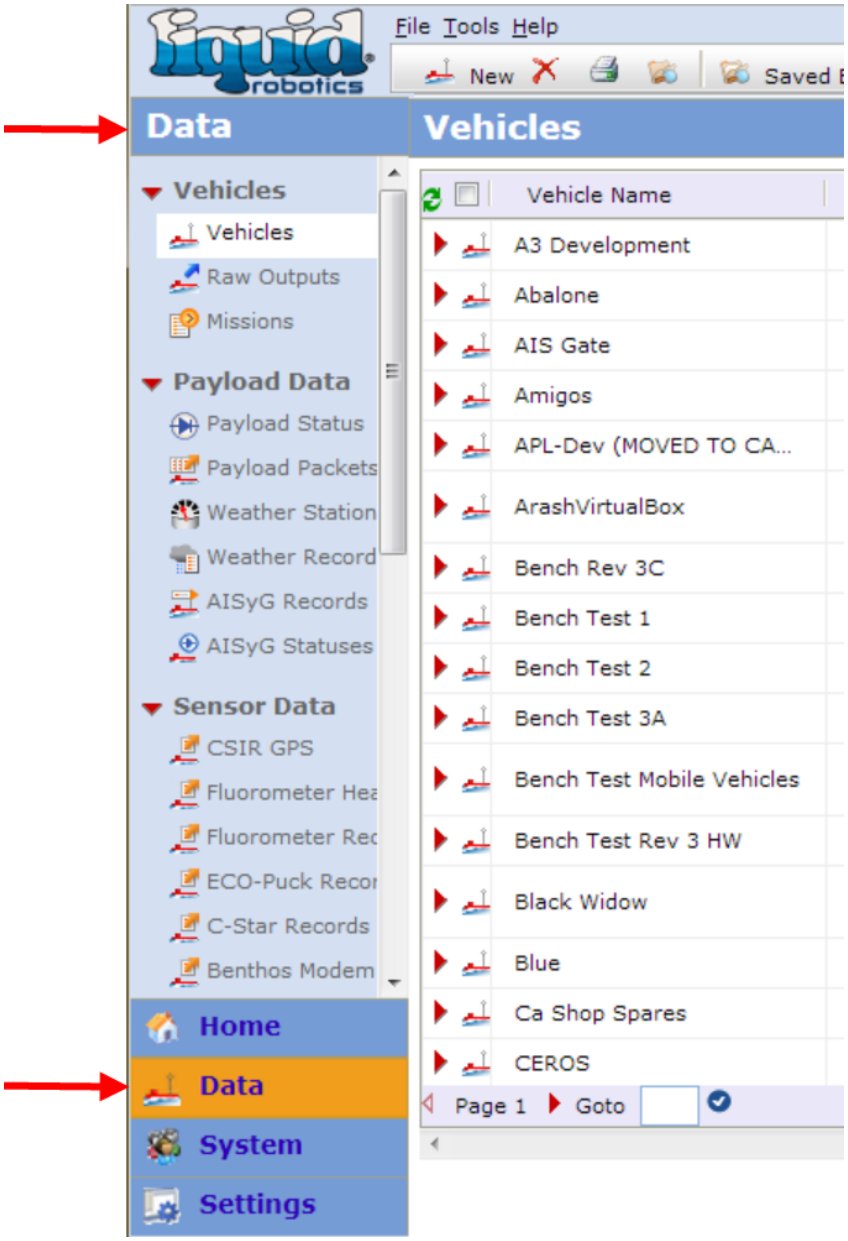


A Custom Reports button has been added to the WGMS Dashboard as another way to get you to the Custom Reports window:

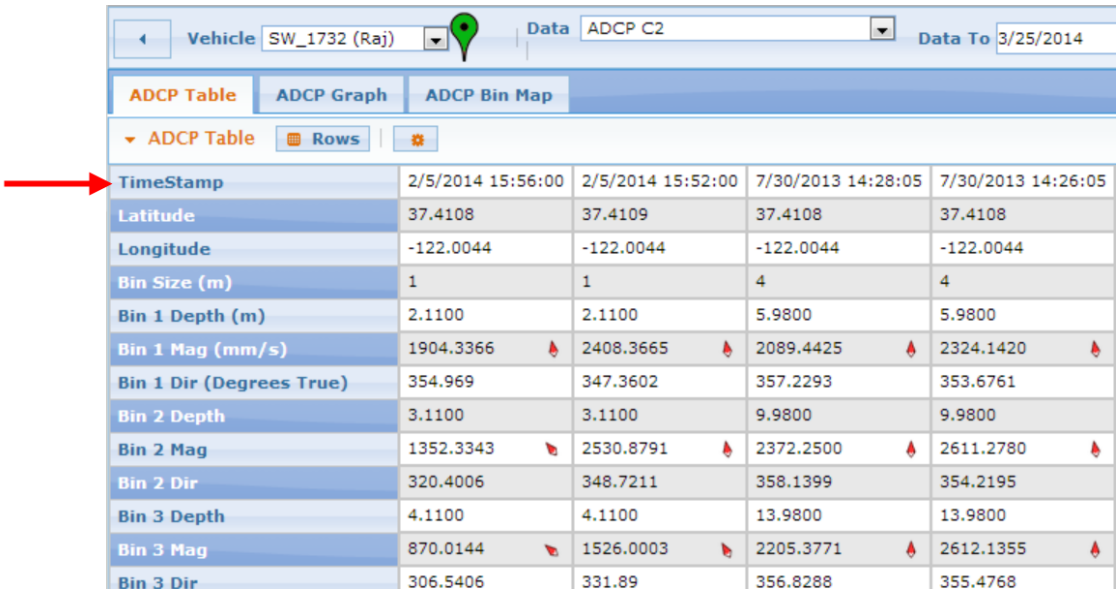


When Line Following parameters are activated, a new Line Following icon changes from grayed-out to a multicolor display:

In the System Menus, the **Vehicles** menu has been re-named and is now referred to as the **Data** menu:



A timestamp has been added to ADCP BIN Map custom reports:



TimeStamp	2/5/2014 15:56:00	2/5/2014 15:52:00	7/30/2013 14:28:05	7/30/2013 14:26:05
Latitude	37.4108	37.4109	37.4108	37.4108
Longitude	-122.0044	-122.0044	-122.0044	-122.0044
Bin Size (m)	1	1	4	4
Bin 1 Depth (m)	2.1100	2.1100	5.9800	5.9800
Bin 1 Mag (mm/s)	1904.3366	2408.3665	2089.4425	2324.1420
Bin 1 Dir (Degrees True)	354.969	347.3602	357.2293	353.6761
Bin 2 Depth	3.1100	3.1100	9.9800	9.9800
Bin 2 Mag	1352.3343	2530.8791	2372.2500	2611.2780
Bin 2 Dir	320.4006	348.7211	358.1399	354.2195
Bin 3 Depth	4.1100	4.1100	13.9800	13.9800
Bin 3 Mag	870.0144	1526.0003	2205.3771	2612.1355
Bin 3 Dir	306.5406	331.89	356.8288	355.4768

New Features

HYP-1307	Ability to cancel file transfer
HYP-1313	User can select to Render Course when creating a "New Course" (check box)
HYP-1378	Allow for Iridium telemetry aggregation with a single L3 header (9522B large buffer modems)
HYP-1481	Convert WGMS to HTML5 native application
HYP-1482	Pilot Tools App: Mobile WGMS Vehicle Provisioning
HYP-1490	Add dashboard control to show state of the thruster
HYP-1503	HTTPS enabled orgs should stay in HTTPS for all pages
HYP-1504	When moving an SV3 vehicle also copy the manifests
HYP-1505	Add concatenated Acks to the command grid columns
HYP-1506	Add SV3 obstacle avoidance mode indicator on the dashboard
HYP-1518	Implement compression headers support for relays using GZIP but allow for pluggable compression algorithms
HYP-1557	Add custom reports button to dashboard
HYP-1561	Toggle Waypoint Render mode between all - vehicle - none
HYP-1542	Create time stamp within WGMS UI for ADCP Bin maps
HYP-1464	WGMS/Map Option/Map Utility - Corrections and Improvements
HYP-1484	Make WebHelp display window able to scale to full screen size
HYP-1402	Improvements to Vehicles Screen in System Menus
HYP-1403	Move "Reports" tab and menus from "System" system menus to Vehicles system menu AFTER Vehicles system menu is renamed "Data"
HYP-1528	Custom Reports to support 800x1280 (800 pixels wide)
HYP-1500	Set parameter- WGMS should not show deprecated parameters on "Parameter" drop-down
HYP-1501	Change the email subject when WGMS loses communication with Virtual Relay

Bug Fixes

HYP-1447	Commands over virtual relay are generating multiple ACKs
HYP-1535	Using "&" in vehicle name causes the crumbs in Google Map to stop rendering ...
HYP-1558	SV3 Commands No way to specify comms channel
HYP-1316	Current Speed alarm at Vehicle Birth
HYP-1317	Release Notes
HYP-1318	Map Utility Tool Overhaul
HYP-1320	Waypoint Rendering for each vehicle (Red WPs on top of White WPs)
HYP-1419	WGMS clears the Vehicle data when the user changes the Form view from the drop-down, after saving a new vehicle
HYP-1470	ArcGIS0: WGMS switches to Map mode, if the user hit "last refresh" icon when ArcGIS0 mode is on
HYP-1471	Courses: WGMS doesn't allow the user to send a new Course. It displays a warning.
HYP-1475	Pilot Tool App: The app sends the waypoints to the vehicle, when "Don't send to vehicle" option is checked
HYP-1476	Pilot Tool App: "Don't send to vehicle" label should be renamed. The current name is confusing
HYP-1477	Pilot Tool App: Version number is duplicated in 'About" window
HYP-1478	Set Status using the new option does not populate the raw output link
HYP-1480	Map Utility Tool for creating Geometric courses does not send waypoints to vehicle
HYP-1483	WP Generator Tool Not Functioning
HYP-1485	Error message when concatenated acks exceed 256 bytes in Write Console Script
HYP-1486	Path Over Ground (POG) bug
HYP-1487	Home FF: "Alarms" and "Mobile Systems" windows are shown incorrectly
HYP-1488	Overall System: Additional text is shown on "preview" view, when the user want to print a window
HYP-1496	In the Record Customization/Fields/Relationship a System Error message is displayed, when press the "Copy from Another Relationship" button.
HYP-1497	In the "New Payload Formatter" form, a System Error message is displayed, when try to open the "Copy from" functionality.
HYP-1498	When the user wants to export waypoints WGMS allows the user to enter invalid information in the latitude and longitude criteria.
HYP-1507	"SV3 Commands" should not return "Payload" data upon ACK
HYP-1508	In the "Weather Station" new window when the user clicks the "Copy from another Weather station" button the WGMS displays a system error message.
HYP-1514	Increase Packet Reflect (Output Sink Subscriber) Retry buffer size to allow for more time before having to fail-over ...
HYP-1515	display dashboard refresh time in 24hr format (not 12h format)
HYP-1517	Home : "SV3 Commands" window is not properly displayed
HYP-1519	Custom Reports doesn't how the same time format as WGMS

HYP-1527	VFrom: Deprecated functionality is still available in "File" menu
HYP-1529	Sentinel Map does not obey AIS clustering zoom rules
HYP-1531	(Mobile) Map Utility: The user is not allowed to sent WPs when using an existing waypoint number
HYP-1533	WGMS should not allow legacy Hold Current Position or Hold Station at Waypoint for SV3 vehicles
HYP-1534	Command button and parameter fields disappeared when SV3 pop-up window maximized or expanded horizontally
HYP-1552	Waypoints copy to... another vehicle does not work while in Mobile mode
HYP-1553	Clear alarms does not work while in Mobile mode
HYP-1554	Unable to drag pin drop on Mobile WGMS client
HYP-1559	Fast mailbox Check Inoperable on WGMS page
HYP-1492	When the user wants to create a new event definition in the "New Event" dialog with invalid information the WGMS allows it.
HYP-1493	In the "Vehicle/Statuses" menu when the user enters the "Copy from another status" window and creates a new Status the WGMS doesn't display correctly the information.
HYP-1495	In the "Operation Polygons" when the user wants to export the "Notes" with the "Description" criteria the WGMS shows an error message.
HYP-1502	After creating first coordinate in Polygons Coordinates tab, the system closes the form and directs you to Polygons Form
HYP-1520	(IE10&9) Alarms: The alarm record is shown as HTML code
HYP-1562	SV3 Commands- An extra 'H' is shown in top bar
HYP-1355	Negative Ground Speed
HYP-1491	When the user is creating a New Operation Polygon the "Display on Map" check box should be checked by default.

Changes in Version 4.1.5

Note

Do not upgrade to IE 11 if you are running WGMS. WGMS does not support IE 11.

Principal Changes

This is the list of highlights from this version:

1. WGMS paging performance has been up graded by moving from an SQL query requiring two sub-queries to a single query with a function call.

2. Support for SV3 Field Events to be displayed in the WGMS dashboard. A new Field Events reporter ID was created with 4 possible Field Events Notification ID types (0 = Undefined, 1 = Vehicle In The Water, 2 = Vehicle Out of the Water, 3 Launch Checklist Completed).

3. Support for SV3 computed course telemetry packets. An SV3 vehicle can autonomously change its course to avoid obstacles. When an SV3 computes a course that diverges from a custom, or waypoint defined course, it will send WGMS a telemetry packet containing an

array of points on the map (lat/long 32 bit compressed) that define the computed course. The telemetry is plotted on the WGMS map display (similarly to an op-region) for the pilot to observe.

4. Support for the SV3 **New Waypoint with Attributes** command. The **New Waypoint with Attributes** command carries a script that is executed by the SV3 when it arrives at the designated waypoint. Typically the script will turn on a sensor and begin gathering data when the designated waypoint is reached.

5. The WGMS map view now automatically indicates which AIS reporting vessels are being ignored, based on the MMSI Ignore list settings for the vehicle. This feature is activated when **Label Op-Regions and Most Recent Point** in the **Map Options > Tool Options** menu is selected. An **Ignored** label appears next to AIS reporting vessels that are listed in the MMSI ignore list.

6. Integration with ArcGIS server map tile layers. ArcGIS is a geographic information system that is used for creating maps, compiling geographic data, analyzing mapped information, and managing geographic information in a database.

7. A centralized “User Delete” function allows a Root User to delete any User from all WGMS organizations and escalation lists by clicking a button.

8. The Vemco VM4 sensors were added to the Custom Reports page.

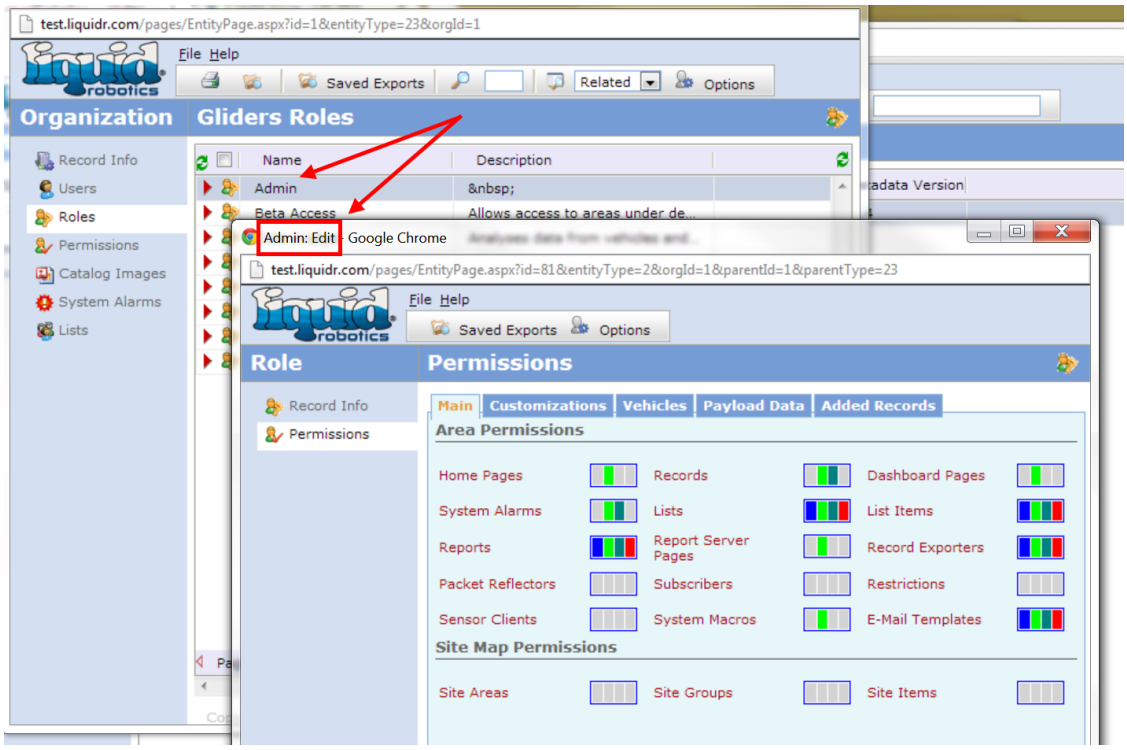
9. The JAMSTEC sensor was added to the Custom Reports page.

10. A Sentinel acoustic sensor display window was added to the WGMS Dashboard.

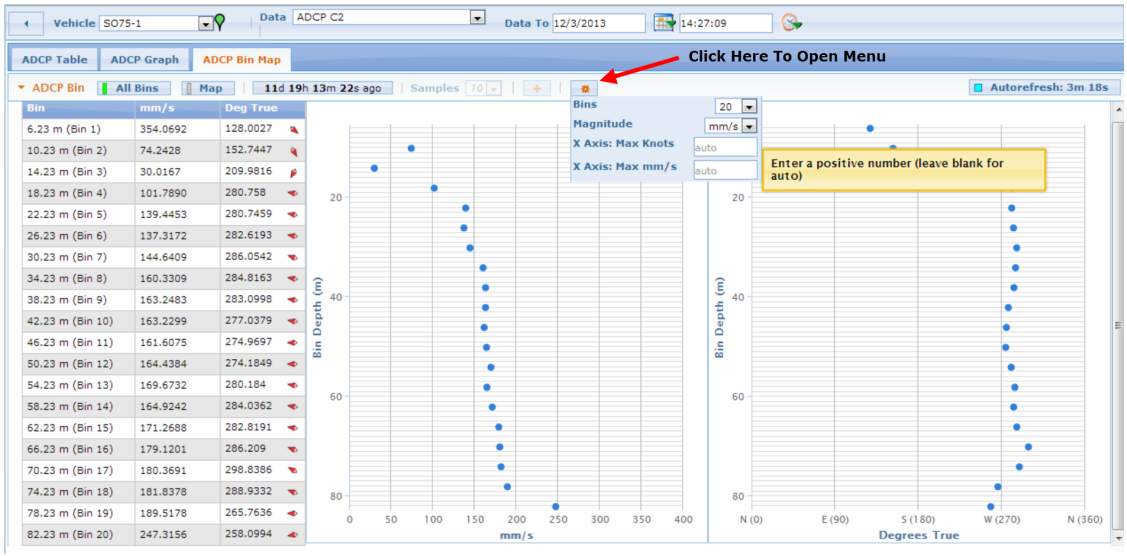
User Experience Changes

In prior releases, **Last Refresh** on the WGMS Dashboard was reported as a 12-hour Greenwich Standard Time. In 4.1.5 it is reported in UTC:

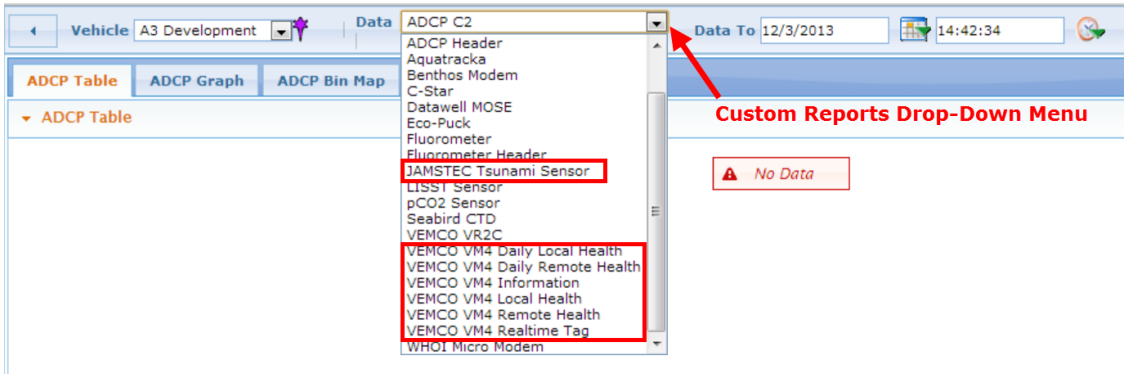
The Role name is now included in the header of the Permissions record so you know which Role you are viewing or editing:



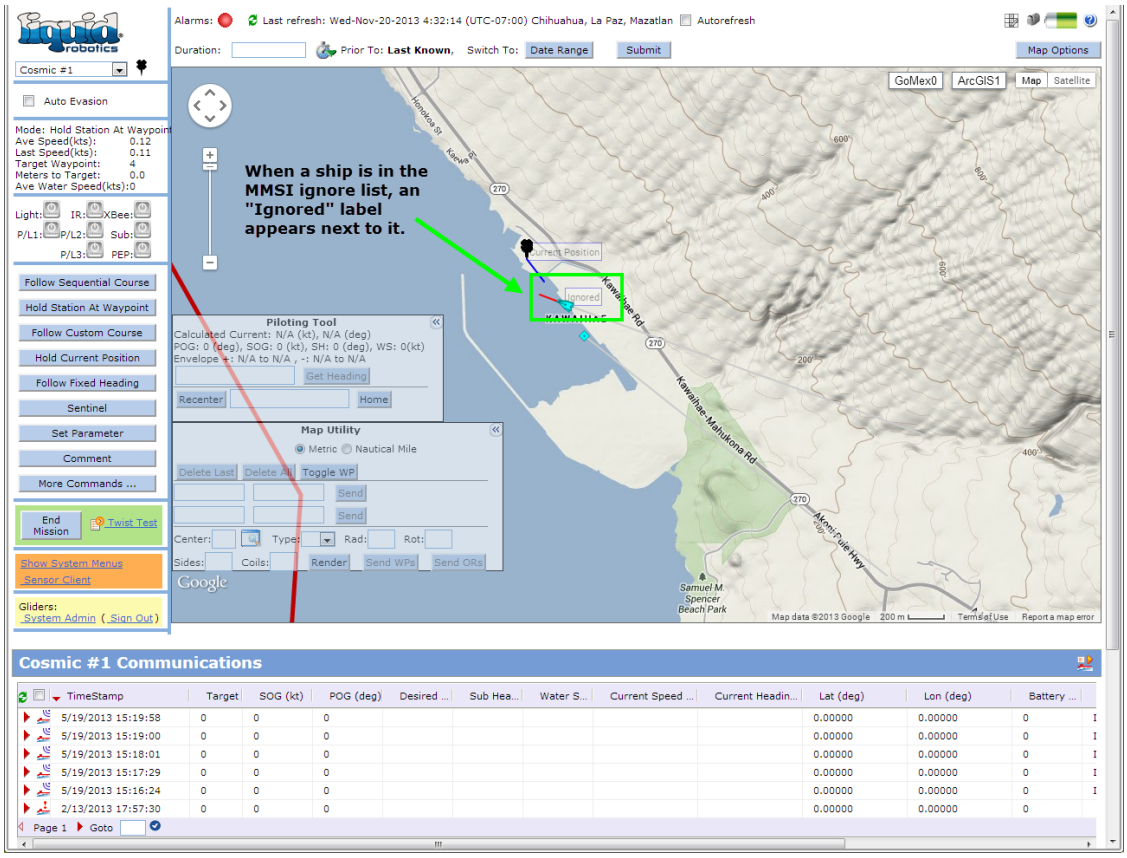
A user scalable X-Axis is included in the ADCP Bin Map display:



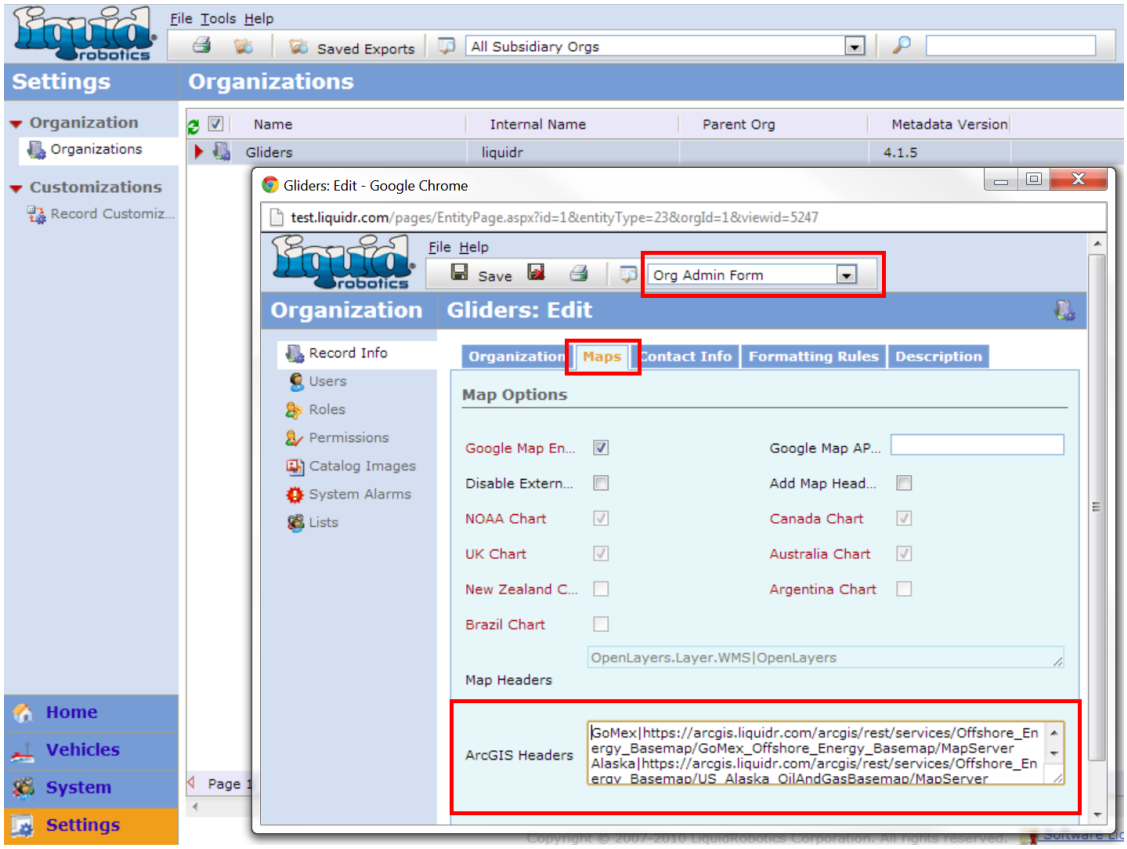
Vemco VM4 and JAMSTEC sensor Custom Report Pages are now available in the WGMS Custom Reports menu:



The WGMS map view now displays a list of all AIS reporting vessels that are being ignored based on the MMSI Ignore list settings for the vehicle:



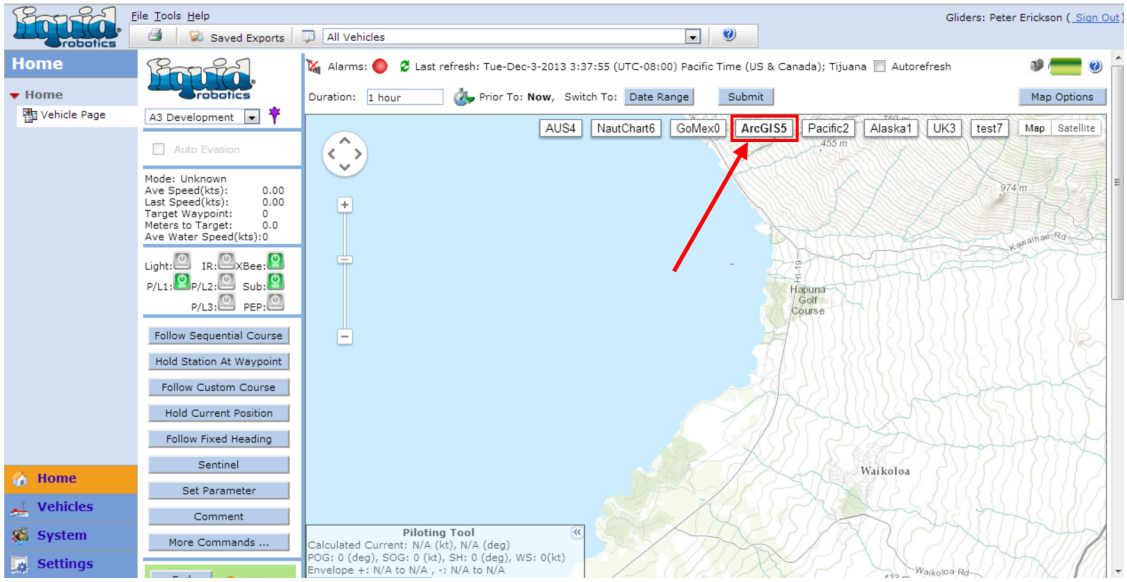
Integration with ArcGIS server map tile layers - (this feature is under development). From the **Maps** tab on the **Organization Admin Form**, you can enable up to 8 different ArcGIS map layers on the WGMS dashboard by entering the headers for the map layers you want to view in the **ArcGIS Headers** field:



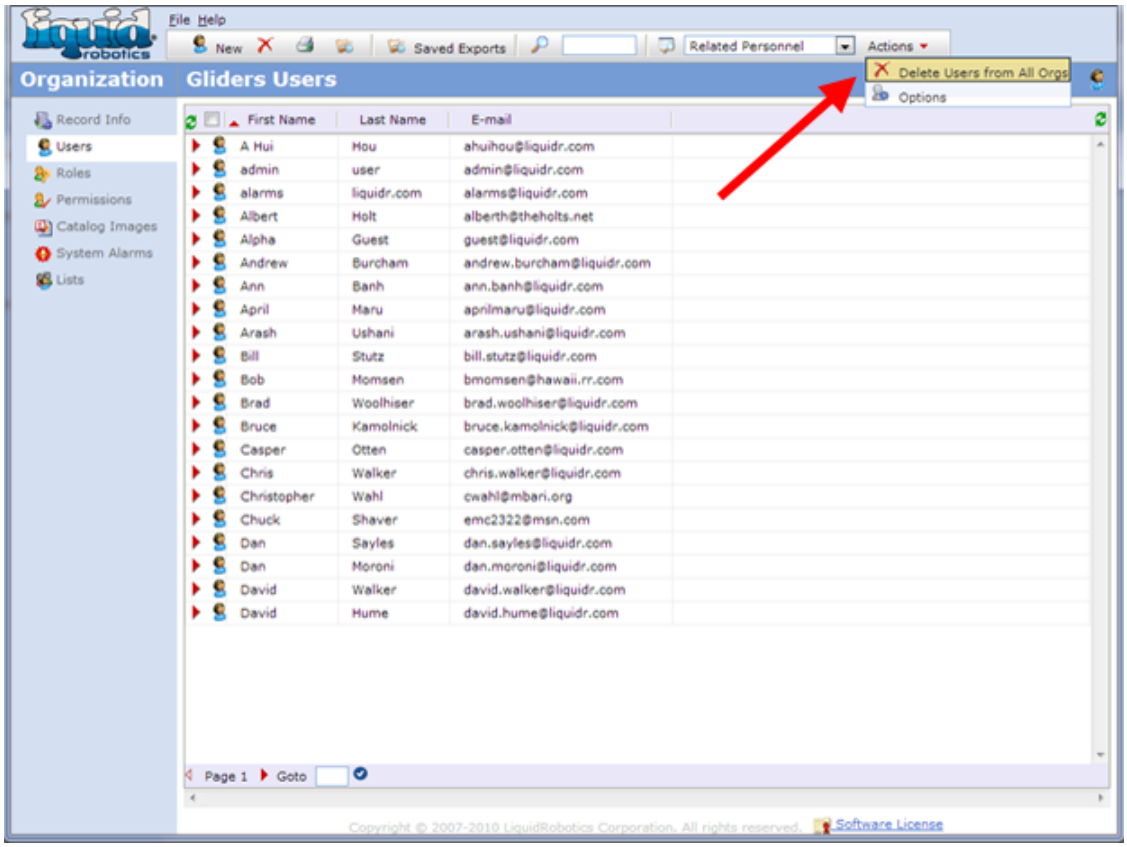
The headers that can be entered in the **ArcGIS Headers** field are:

```
GoMex|https://arcgis.liquidr.com/arcgis/rest/services/Offshore_Energy_Basemap
/GoMex_Offshore_Energy_Basemap/MapServer

Alaska|https://arcgis.liquidr.com/arcgis/rest/services/Offshore_Energy_Basemap
/US_Alaska_OilAndGasBasemap/MapServer

Pacific|https://arcgis.liquidr.com/arcgis/rest/services/Offshore_Energy_Basemap
/US_Pacific_OilAndGasBasemap/MapServer

UK|https://arcgis.liquidr.com/arcgis/rest/services/Offshore_Energy_Basemap
/UK_OilAndGasBasemap/MapServer

AUS|https://arcgis.liquidr.com/arcgis/rest/services/Offshore_Energy_Basemap
/AUS_OilAndGasBasemap/MapServer

ArcGIS|http://server.arcgisonline.com/ArcGIS/rest/services/World_Topo_Map
/MapServer

NautChart|https://arcgis.liquidr.com/arcgis/rest/services/Nautical_Charts
/NauticalChartDemo_GulfOfMexico/MapServer

test|https://arceast.wgms.com/arcgis/rest/services/WGMS_Test_Buoys
/MapServer
```

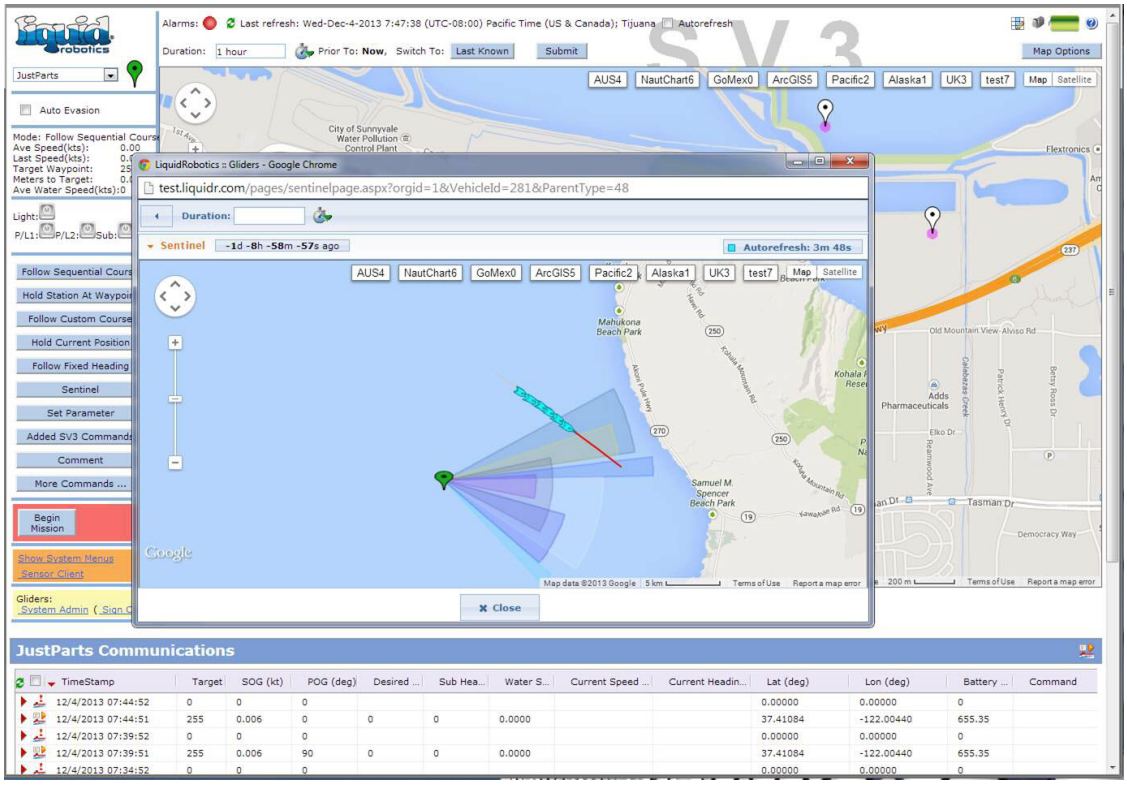
Buttons for each map layer header that you enter will appear on the WGMS dashboard. When you click on a map button to activate a map layer, the text on the button will change to bold face. To close a map layer click the button for that layer and the bold text will return to a regular font.



A centralized **User Delete** function allows a Root User to delete users from all organizations and escalation lists by selecting one or more users and clicking the **Delete Users from All Orgs** button in the **Actions** drop-down menu on the toolbar:



A Sentinel acoustic sensor window is now displayed on the WGMS Dashboard:



New Features

HYP-1442	Support Computed Course telemetry packets from an SV3 glider.
HYP-1327	Migrate all Op Regions to Geo-Spatial Extension processing in WGMS.
HYP-1342	MMSI Ignore List - WGMS should indicate that the vehicle is in "MMSI Ignore List" mode.
HYP-1397	Potential way to remove users from escalation list or as users from every Org or Vehicle.
HYP-1415	Create web service for UI to pass user settings to server.
HYP-1423	Add Auto refresh functionality for custom reports for 4.1.5.
HYP-1443	Create new command (SV3 only) for New Waypoint with Attributes.
HYP-1458	Add integration to ArcGIS.
HYP-1460	Field notifications to be displayed in WGMS dashboard.
HYP-1463	"Last Refresh", on Dashboard is reported as a 12-hour time listed.
HYP-1412	Role name is missing from Permissions.
HYP-1462	Add user scalable "X-Axis" in "ADCP Bin Map."
HYP-1467	Add Vemco VM4 & JAMSTEC sensors to Custom Reports page.

Bug Fixes

HYP-1422	IPad Begin Mission button is not working.
HYP-1441	WGMS Data Paging.
HYP-1449	Wrong CRC values being sent with courses.
HYP-1461	Parsing AMPS summary reports to Power Ctl Status packet mixes Vehicles.
HYP-1338	Map Utility- WGMS should notify the user that an existing waypoint is being replaced.
HYP-1340	Map Options - A "Select All" check box should be displayed, in order to choose all/ none of the Gliders to be displayed on the map.
HYP-1350	Chrome does not open file dialog when uploading a file on WGMS.
HYP-1392	Login Issue - Login page looping: NDG org: User
HYP-1408	Record Customization - The user should have the ability to add lines into text area.
HYP-1409	(IE10) Courses - Buttons are not displayed properly on Waypoints section.
HYP-1410	System Macro - Script error when trying to run a macro.
HYP-1414	Strings pasted into the Write Console Script command Script Buffer can fail character translation with no warning to the user.
HYP-1416	Piloting Tool in WGMS is named incorrectly in map options as Map Current Calculator - Please rename to Piloting Tool in map options.
HYP-1417	Mission - Catalog Images and Lists tabs have the same ID.
HYP-1420	New File Available messages for files of zero-length should create a zero length attachment.
HYP-1424	The "Print" button in the Notes Print Preview dialog, displays an Internet Explorer Script Error.

HYP-1425	The "Up/Down" buttons in the "Missions/Vehicles" toolbar doesn't work as expected.
HYP-1426	In the "Course/Course Waypoints" dialog, the "Up/Down" buttons, generates a wrong behavior in the list sorting.
HYP-1427	In the "Vehicle/Operation Polygons" when the user wants to create an operation coordinate the WGMS allows negative numbers in the "Order" field.
HYP-1428	"Currency Symbol" label is misspelled, on "Formatting Rules" tab.
HYP-1429	In the vehicle form, in the errors tab, the drop-down list that contains alarm types still has the RF Link Error option instead of having ship to shore link.
HYP-1430	The "Bubble Board Firmware" type is misspelled in the type list.
HYP-1431	In the "Lists" tab of the vehicles window when the user edits a list and clicks on the print button the printing preview window displays the "Options" button.
HYP-1432	The "Follow Waypoint Course" command is misspelled in the command list.
HYP-1433	In the "New Vehicle Status" form the required raw output field is not marked as required.
HYP-1434	The "Up/Down" buttons in the "Obstacles/Vehicles" toolbar doesn't work as expected.
HYP-1435	"Raw Output" is misspelled in Raw Output section within Vehicles module.
HYP-1436	Required fields in Payload Status section are not marked as required fields.
HYP-1439	Users cannot log in immediately after resetting password but must wait 10-30 minutes for it to work.
HYP-1444	The "Site Search" option was not removed from the main toolbar in WGMS.
HYP-1445	Clicking on the light button for SV3 vehicles creates a comment instead of a command.
HYP-1446	Course first waypoint verification was failing.
HYP-1453	BETA: "Float Reboot" command is not supported for SV3 vehicles.
HYP-1456	Sending Courses through different WGMS interfaces generates different commands (include vs. not include CRC of waypoints).
HYP-1459	Remove deprecated Daylight Map from Google Maps.

Changes in Version 4.1.4

Principal Changes

This is the list of highlights from this version:

1. Support for SV3 commands. An **SV3** watermark appears in large gray letters in the Map Window header and the **Added SV3 Commands** button appears in the Map Window side bar when an SV3 Vehicle is selected. Clicking on the **Added SV3 Commands** button opens the **Services** window where commands related to the additional functionality of SV3 vehicles can be issued.

2. **Components** tab on the Vehicle Form is activated when an SV3 vehicle is selected. The **Components** tab provides status on AMPS modules.

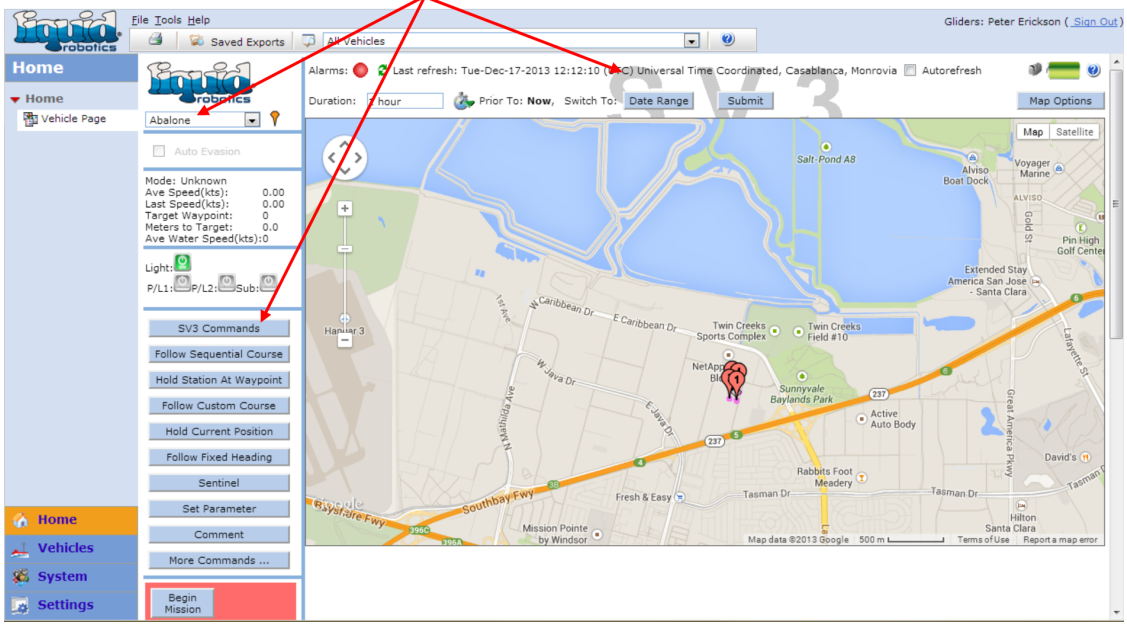
3. Custom Reports screens for all supported Wave Glider integrated sensors. When you click on the **Custom Reports** tab in the **Reports** menu on the **System** screen side-bar, the

Custom Reports screen opens with ADCP C2 data selected by default. By selecting a data type from the **Data** drop-down menu, you can view custom data reports for sensors that are installed on the selected Vehicle.

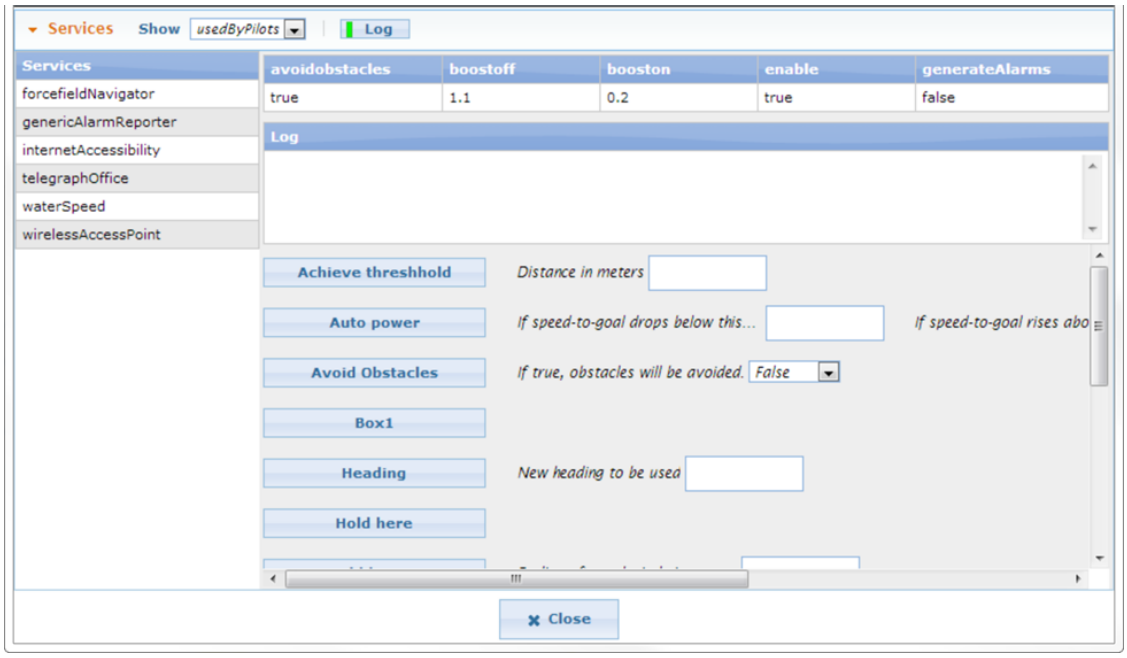
User Experience Changes

Changes to **Home** screen when an SV3 vehicle is selected:

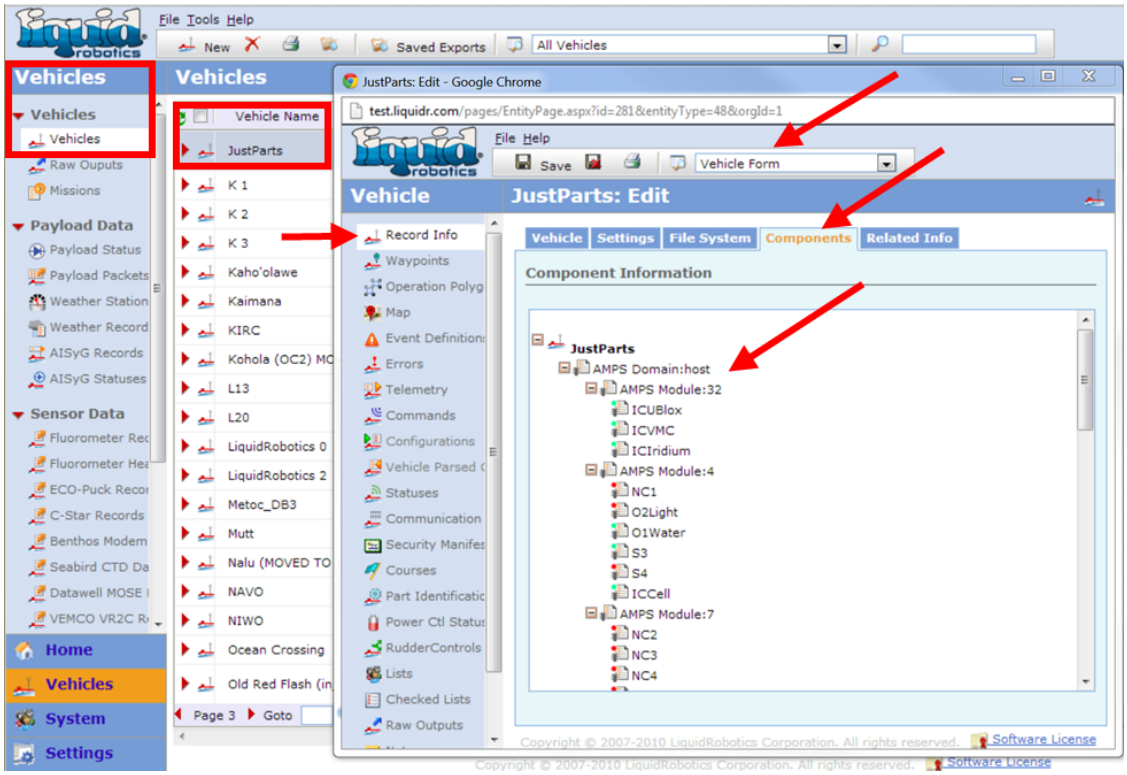
When an SV3 Vehicle is selected, the "SV3" watermark appears in the WGMS Dashboard and the "SV3 Commands" button appears in the side bar.



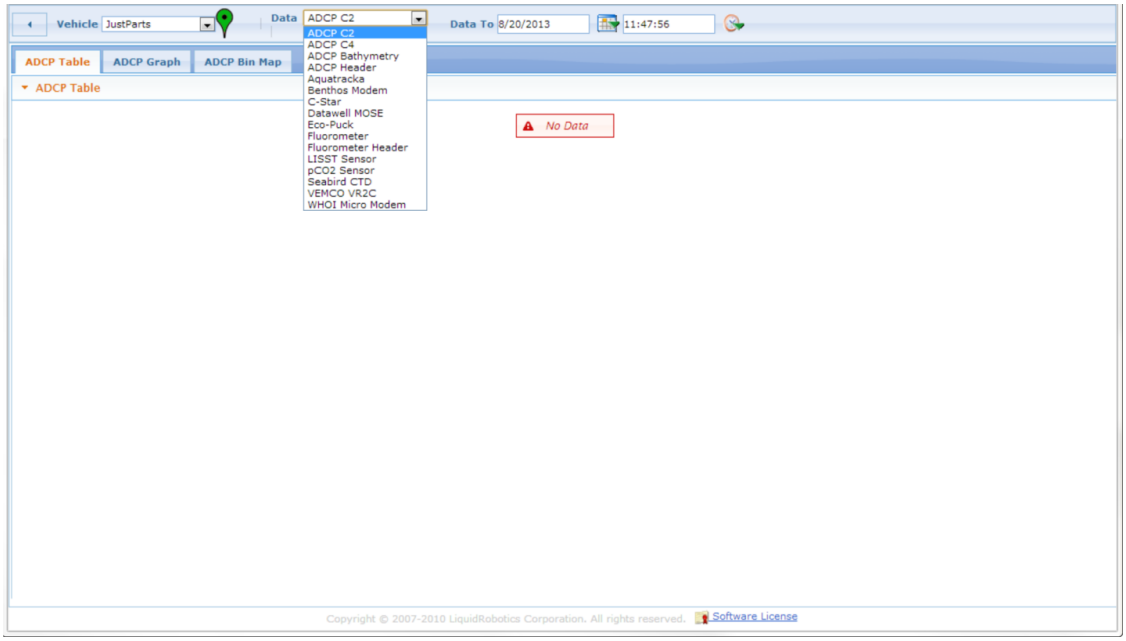
Services window appears when **Added Commands** button is clicked:



Components tab:



Custom Reports drop-down menu with supported data types:



New Features

HYP-1380	SV3 vehicle status panel to access unique features of next generation vehicle.
HYP-1381	Custom Reports (All Sensors)

HYP-1386	Create NACK message with Description.
HYP-1379	SV3 config JSON processing and conversion to hierarchical parts list.
HYP-1383	Allow org to customize which command buttons are visible in the dashboard.
HYP-1382	A small change that could be a significant WGMS usability improvement.

Bug Fixes

HYP-1396	Custom Report- When the user selects a different vehicle and then clicks on the vehicle Icon, WGMS doesn't display accurate information.
HYP-1343	When a Proximity Alarm is triggered, the system sends the wrong suggested coordinate to avoid collision by e-mail.
HYP-1329	Copy Course from one vehicle to another not functioning
HYP-1333	Courses - "Start Waypoint" lookup should display only the waypoints that belong to the specific course.
HYP-1328	Bulk Copy of Waypoints in Custom Course Creation.
HYP-1367	When the user issues a set rudder position command with an invalid heading, WGMS displays an error message.
HYP-1366	In the "Vehicles/Commands" dialog, WGMS displays a server error message, but not an alert, when the user enters an invalid number (4874961123) in the “Add MMSI” field.
HYP-1365	When the user issues a read file transaction command, WGMS displays an error message.
HYP-1364	When the user issues a read file request command WGMS, displays an error message.
HYP-1368	When the user issues a follow waypoint course command with invalid information, WGMS displays a server error message.
HYP-1363	In the “Organizations/List” tab the copy to.. button doesn't copy the selected list into another organization.
HYP-1369	When the user sends a set parameter command with "" characters in the command name, they are not interpreted as plain text.
HYP-1341	Vehicle Form- The user should have the ability to delete a Storage Controller.
HYP-1370	In the System/Macro, when you click to select a value for "Parent Entity", a server error message is displayed.
HYP-1337	Current Calculator widget should be called “Piloting Tool.”
HYP-1362	When you put a vehicle in a mission using the “Begin Mission” button in the home page, the "onMission" button status is not refreshed (Chrome and firefox).
HYP-1372	Second "payload" field in raw outputs does not wrap.
HYP-1357	Dashboard Google map switches from satellite back to map mode after refresh and auto-refresh.
HYP-1336	Map Options - WGMS should display Warning Alert informing that "Fade Older Points" is available, if Open Layer is active.
HYP-1308	"Copy From Another Select" is throwing "System Error" message in Settings.
HYP-1335	Missions (IE) - A Script Error is show when the user closes the "Related Record" window.

HYP-1359	Dashboard- Screen auto-refresh is not abiding by user time zone, just machine time zone.
HYP-1393	Firmware Part: A server error is shown when the user enters letters into the "Revision" field.
HYP-1311	Google Maps API V2 is retired in May 2013.
HYP-1390	Command Form (IE10/Only): Command drop-down list is not filtering the command types.
HYP-1371	With the Set Parameter command, when the user adds a criteria and then deletes it, the criteria returns to the bottom of the list instead of returning to its proper opt group.
HYP-1385	Vehicle Form - Communication Channel and Check List tabs have same html ID.
HYP-1388	Timezone Offset.
HYP-1339	Map Utility - WGMS should show the Operation Polygon form when sending data to the vehicle.
HYP-1117	Virtual relay packets don't get forwarded by the packet reflector.

Changes in Version 4.1.3

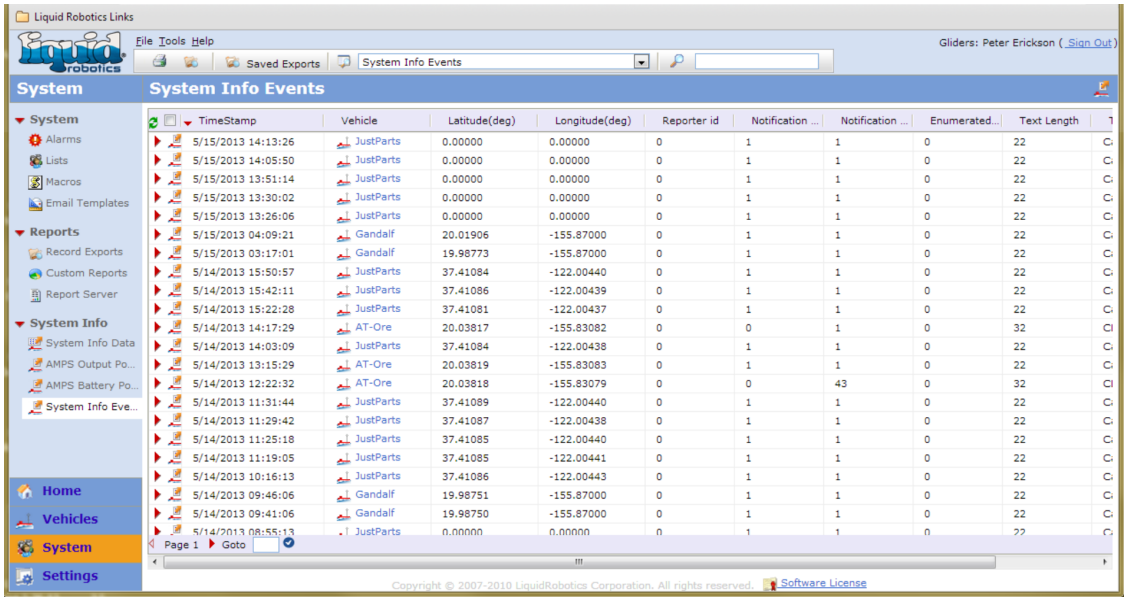
Principal Changes

This is the list of highlights from this version:

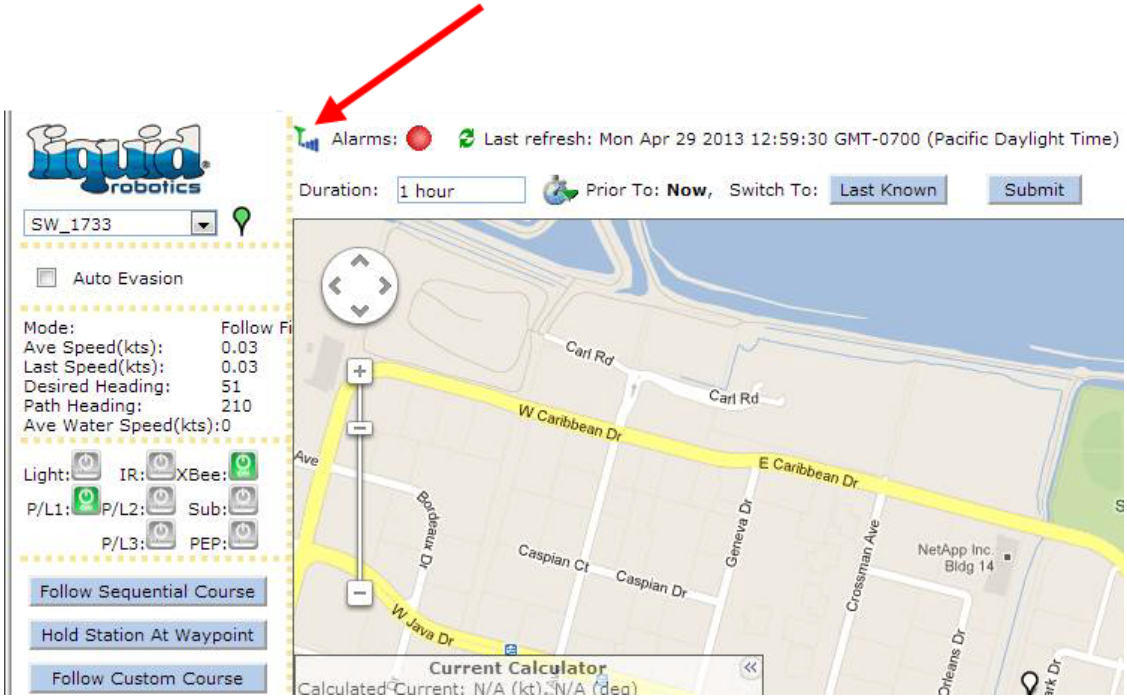
1. Add support for System Information Events.
2. Mobile WGMS feature.
3. Add MMSI ignore list for any proximity alarm and warning issued.
4. Completed ADCP sensor display under Custom Reports Page.

User Experience Changes

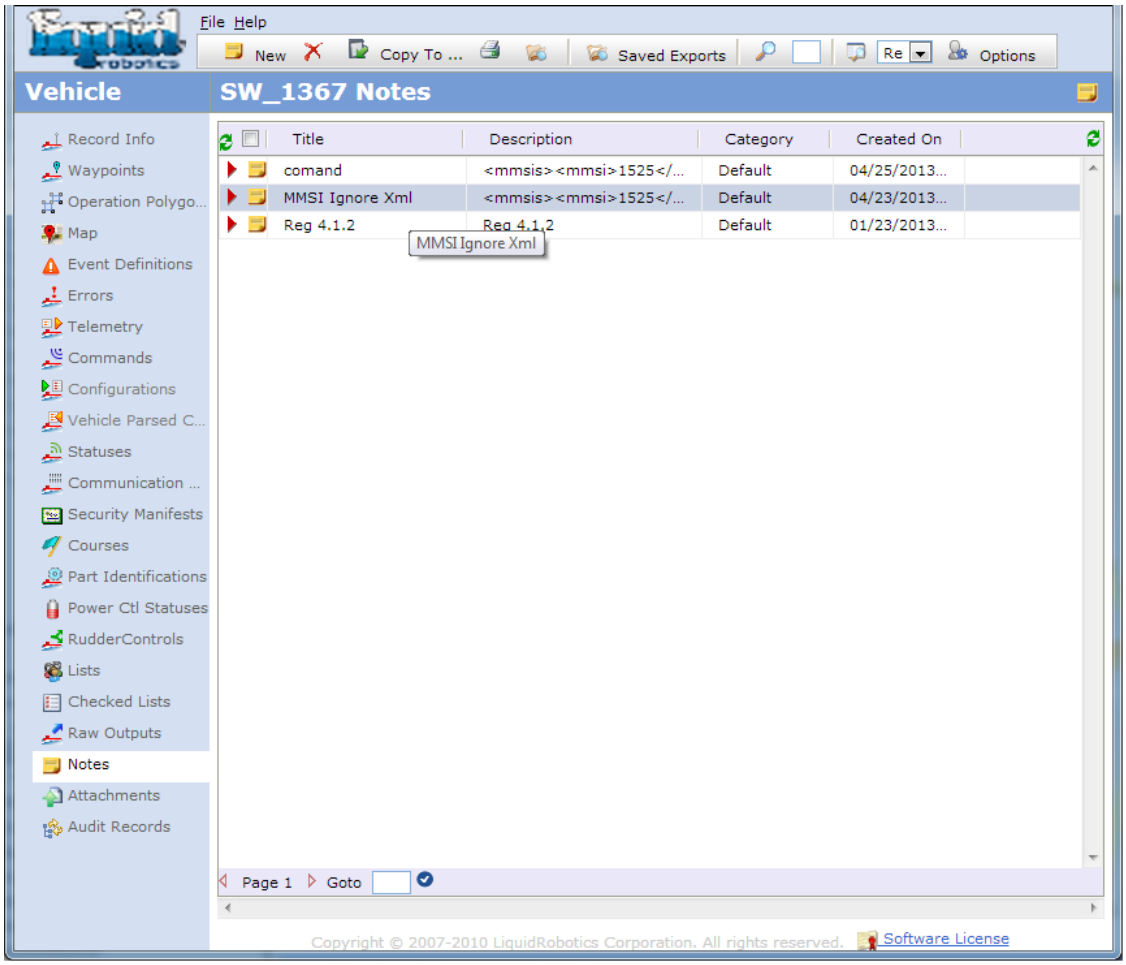
System Information Events:



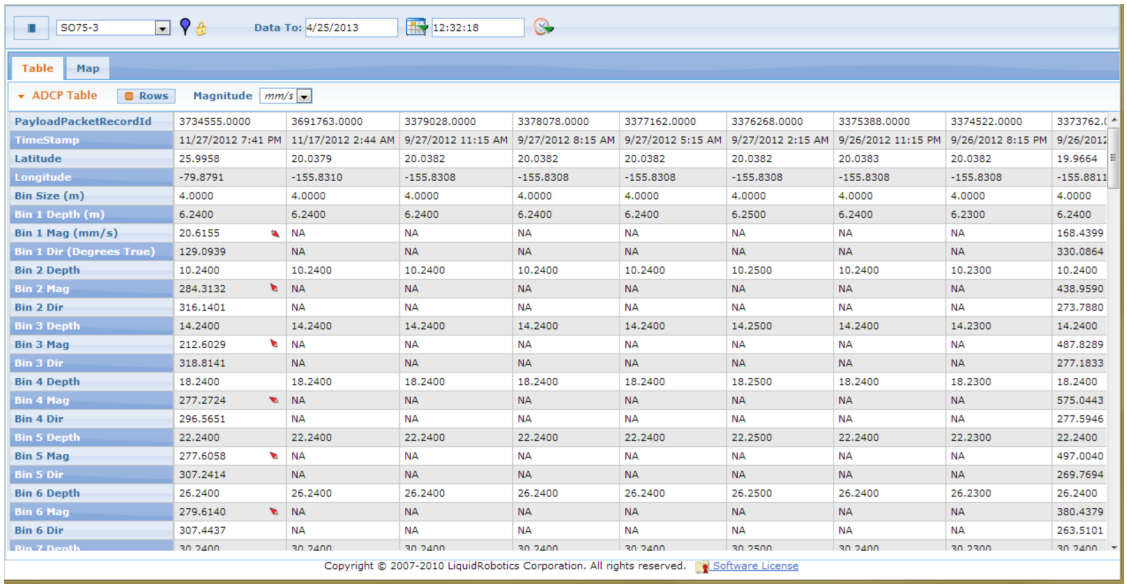
Mobile WGMS feature:



MMSI ignore:



ADCP sensor Custom Reports:



New Features

HYP-1226	Add support for System Information Events.
HYP-1264	Add support for Wave Glider SV3 platform.
HYP-1297	Mobile WGMS feature added.
HYP-1312	Add MMSI ignore list for any proximity alarm and warning issued.
HYP-1346	Completed ADCP sensor display under the Custom Reports page.

Bug Fixes

HYP-1301	WGMS Randomly freezes and locks up.
HYP-1295	No way to disable CAPTCHA.
HYP-1304	Both setting a user name and changing passwords result in user not able to log in properly.
HYP-1305	WGMS automated Email function.
HYP-1309	Comm Server/Packet Reflector/Iridium Relay don't request correct permissions.
HYP-1284	Iridium Coordinates Calculation for Southern Hemisphere is wrong.
HYP-1290	"Serial number" field is not marked as required one and also WGM doesn't ask for it, in order to create the "Iridium Modem" part.
HYP-1291	Op Region Label gets lost on the Map, when any Nautical chart is activated, if the user zooms in/out the map.
HYP-1292	A server error is shown when entering invalid data into "meters" and "degrees" fields, if the user wants to move a waypoint.
HYP-1293	Chrome Only- WGMS saves the changes when accepting the alert and clicking again on "Save" button, when the "Waypoint number" field has invalid data.
HYP-1294	Errors - A server error is shown in "New Error" dialog, when the user clicks on "Copy from" button.
HYP-1296	Raw Output - A server error is shown in "New Raw Output" dialog, when the user clicks on "Copy from" button and the clicks on "Save" button.
HYP-1299	AUTOMATION: Items on a same page must have unique IDs.
HYP-1303	Firefox prompts for extra confirmation step when exiting forms, dialog box, such as More commands.
HYP-1310	Overall System- Similarly named entities in the menu will not be distinguished.
HYP-1314	Pilot Tool - When copying a user into another Org default the users time zone to UTC.
HYP-1334	Missions (FireFox) - WGMS doesn't respond when the user clicks on any Lookup button, in Mission Form.
HYP-795	Copy single waypoint does not work.

Changes in Version 4.1.2

Principal Changes

This is the list of highlights from this version:

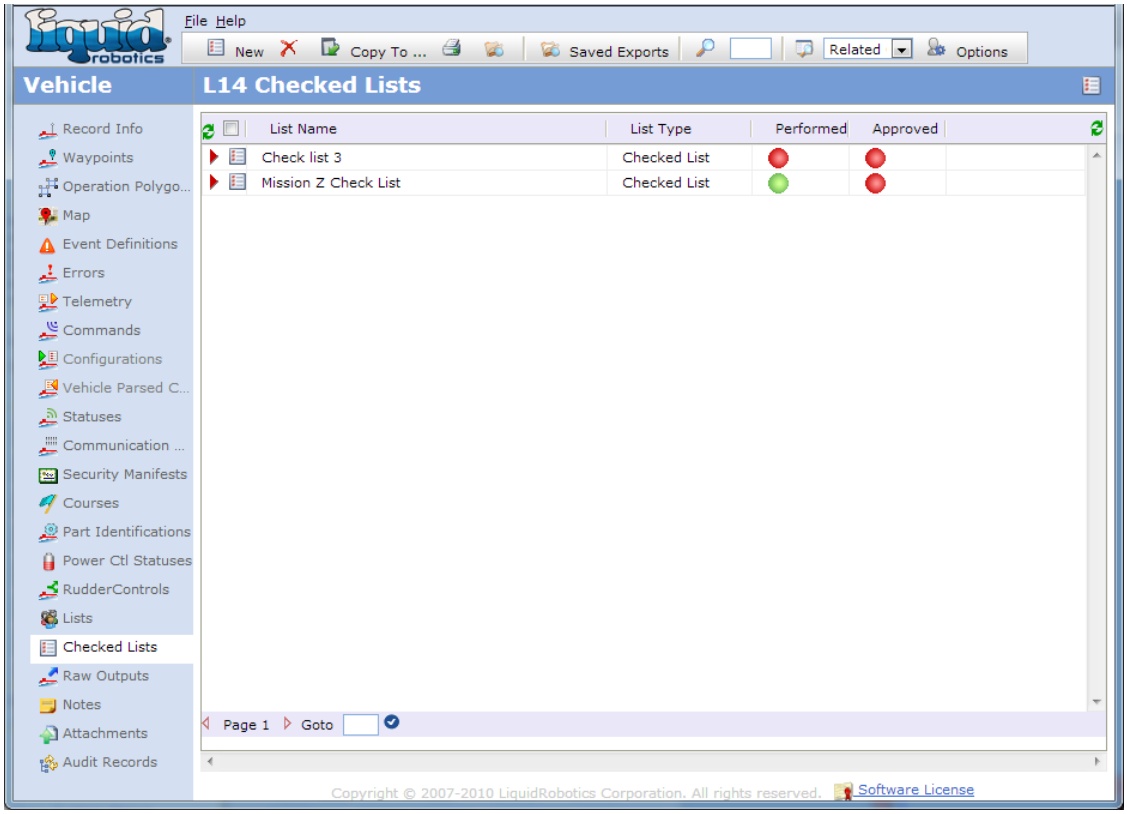
1. Implement Email Templates to allow for editing of email content sent to users when new user is created, user forgot password and user forgot username.

2. Check Lists for vehicles, where items on the list are checked when they are performed and when they are approved.

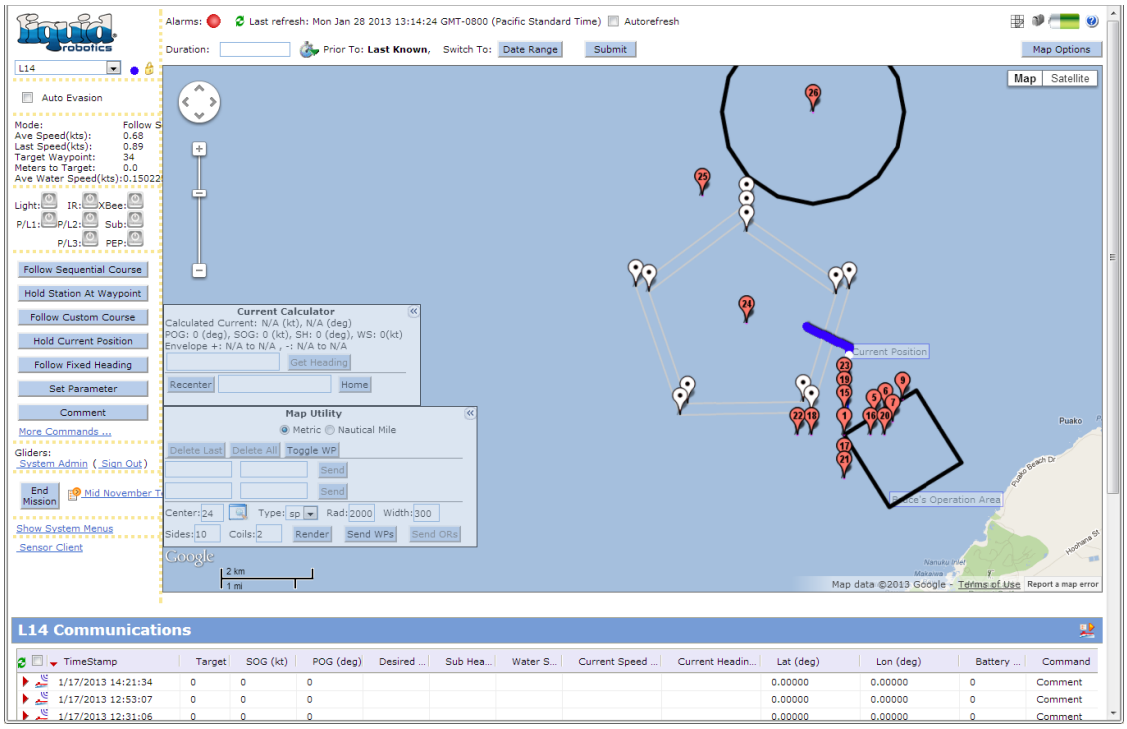
3. Route planning, allow pilots to create vehicle routes and op regions in different shapes.

User Experience Changes

Check Lists:



Route Planning:



New Features

HYP-1217	Move Security Manifest Info with the vehicle when moving it to another org
HYP-1227	Add pilot to escalation list when pilot in charge field in mission form is changed
HYP-1238	Create a Check List for vehicles to enable ops checkout procedures
HYP-1258	Add ability to create waypoints in shapes around a center point
HYP-1276	Add support for Google Maps Nautical Charts using API V3
HYP-1286	Add estimated transit time for the distance shown in map util based on current glider speed

Bug Fixes

HYP-1041	Pilot Tool Algorithm Criteria
HYP-1213	Minimize Piloting Tools with 4.1 release
HYP-1288	In the "Options/Roles" menu when the user gives new permissions to a role the WGMS doesn't assign them as expected.
HYP-1223	Data views export form criteria are not pre-populating the values in the export form correctly.
HYP-1241	Pilot Tool Application should (on setting) forward email to user duplicated
HYP-1260	PACIOOS global currents should be the nearest 3 hour increment to current time not just 00:00:00Z
HYP-1261	AIS unidentified vessel info window should display MMSI
HYP-1269	WGMS displays a server error, when the user enters a decimal number in "Waypoint Number" field

HYP-1270	If a "Part" name has an apostrophe in it, WGMS locks the Part and the user can't manipulate the Part
HYP-1271	Catalog Images - "System error" occurs when trying to upload Images with height greater than width
HYP-1272	WGMS doesn't displayed an alert, when the user sends a "Set Course" command without a course
HYP-1273	Scrollable Org Select Window
HYP-1274	WGMS doesn't allow to create a Waypoint by clicking on the Offline map, if "Pilot Tool" is unchecked
HYP-1275	WGMS doesn't show OP-Region labels on Google map, if "Daylight Map" is deactivated
HYP-1279	Vehicle info label shows a javascript code in it, when hovering the vehicle icon
HYP-1280	WGMS doesn't send the vehicle to Root Org by clicking on "Transfer Vehicle" button
HYP-1281	WGMS duplicates the Op Region when moving a vehicle from another Org
HYP-1282	WGMS doesn't copy the coordinates when copying an Op Region from another vehicle
HYP-1283	Camera Client doesn't transfer files if Auto Respond is not enabled
HYP-1285	Google Map doesn't work, when "Map utility" and "Pilot Tool" are deactivated and Currents are activated
HYP-1287	WGMS does not permit to add an Item to a List (Escalation/User Group)
HYP-1289	Payload Packet - Packet Reflector ,in the "New" dialog, when the user clicks on the "Copy from another Payload Packet Record " a server error is shown
HYP-1211	WGMS Incorrectly handles file names with spaces in them

Changes in Version 4.1.1

Principal Changes

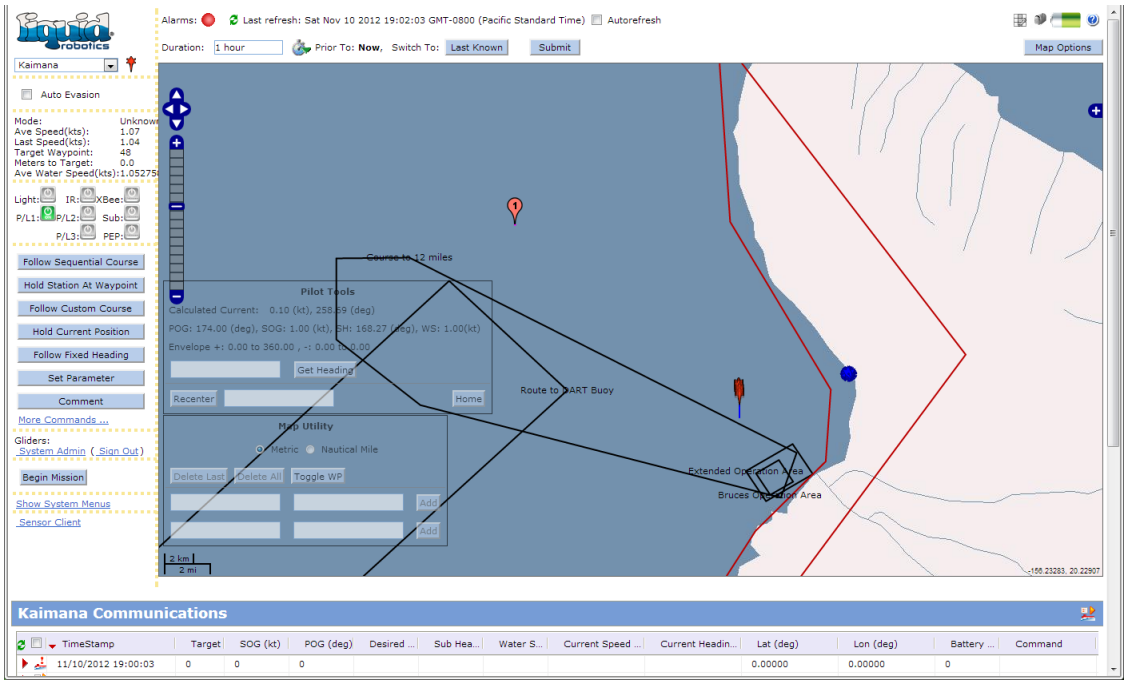
This is the list of highlights from this version:

1. Implement Offline maps to allow WGMS to be operated on a mobile platform without internet access.

2. Calculated column can now be a result of an expression.

User Experience Changes

Offline Maps in WGMS:



New Features

HYP-1208	Default event definitions for ops
HYP-1240	Further processing of level 0 pco2 data from MBARI PCO2 Wave Glider needed
HYP-1221	Add label for op regions, to show which region is displayed on the map
HYP-1234	Add offline mapping solution for WGMS
HYP-1245	Update Vehicle Part Info Page - Add "9602" as an option for Iridium Modem Type

Bug Fixes

HYP-1212	Change Meta Data to combine Alarms that have the same meaning and confirm validity.... see case description
HYP-1257	A server error message is displayed when the user clicks on "Cancel" button if "Sign in as a Single Sign On User" option was selected
HYP-1232	In the "New Criteria" form, when the user leaves the column field marked as required field empty and clicks on the save or save and close button, WGMS does not display an alert.
HYP-1233	In the "Vehicles/Commands" dialog, WGMS displays a server error message but not an alert ,when the user enters invalid number(1247982) in the Storage Address field
HYP-1242	Icons from all the "Related Info" sections are behind of their respective text box.
HYP-1246	Waypoint is not shown on the map after moving a waypoint relative to another waypoint.
HYP-1247	In the offline map mode when the user has the pilot tools and map utility checked they are displayed correctly but when the map utility is unchecked both tools disappear

HYP-1249	A server error message is displayed when the user enters invalid data to a coordinate field from Map Utility, then clicks on "Add" button.
HYP-1250	OPs are not shown in offline map, if they have "Displayed on map" on (IE only)
HYP-1251	AIS Speed Vector should use COG when available, and the default to Heading ...
HYP-1254	When issuing commands in WGMS and using ( ) symbols the ( ) become scrambled and display in characters and numbers
HYP-1255	The WGMS allows the creation of users with the same email address(FF Only)
HYP-1256	Password field is not marked as required, on Users form
HYP-1206	Home button in pilot tools for Firefox does not work
HYP-1229	Read file command doesn't automatically populate

Changes in Version 4.1.0

Principal Changes

This is the list of highlights from this version:

1. Fleet (lightweight implementation), allowing users and vehicles to belong to a fleet, and see only a limited number of vehicles in dashboard and map options.

2. Domain User login to allow for a user to be logged into multiple WGMS orgs from a single domain.

3. User friendly export pre-populated with criteria specified in views (sensor data exports in a single click)

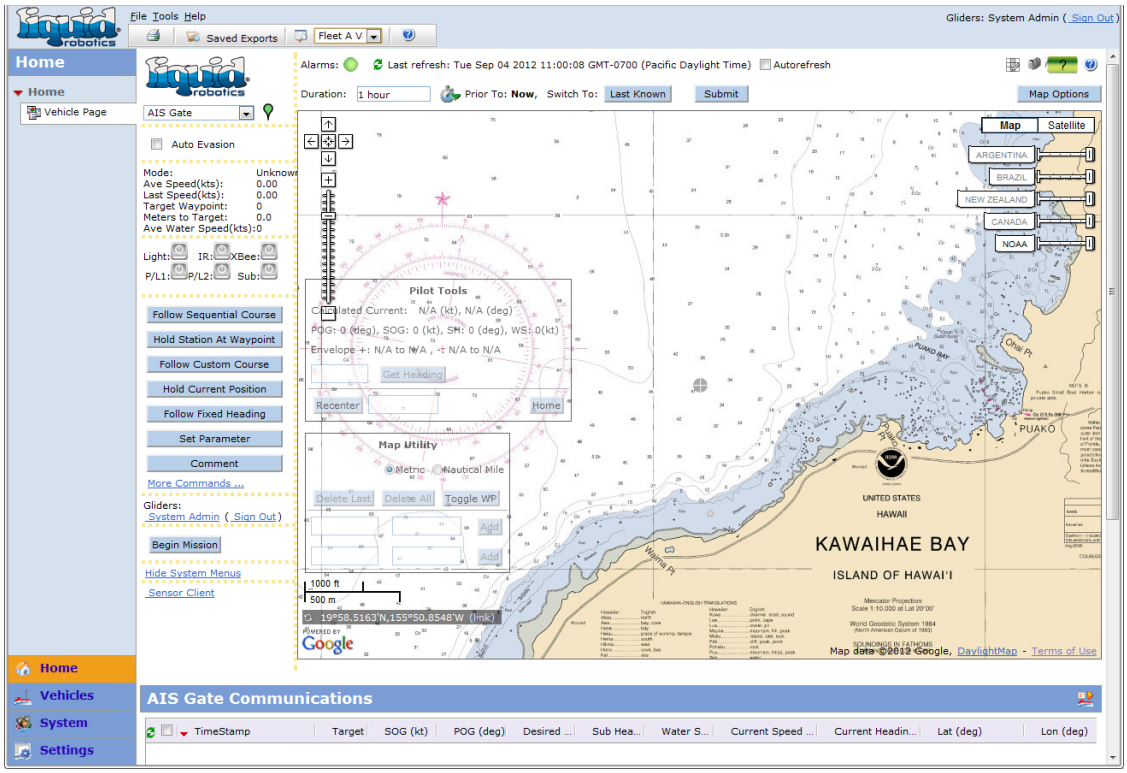
4. Many more Nautical charts supported from Geo-Garage, and Daylight map to show day and night areas in the dashboard

5. Program File command directly from vehicle file without attachment (manufacturing process enhancement)

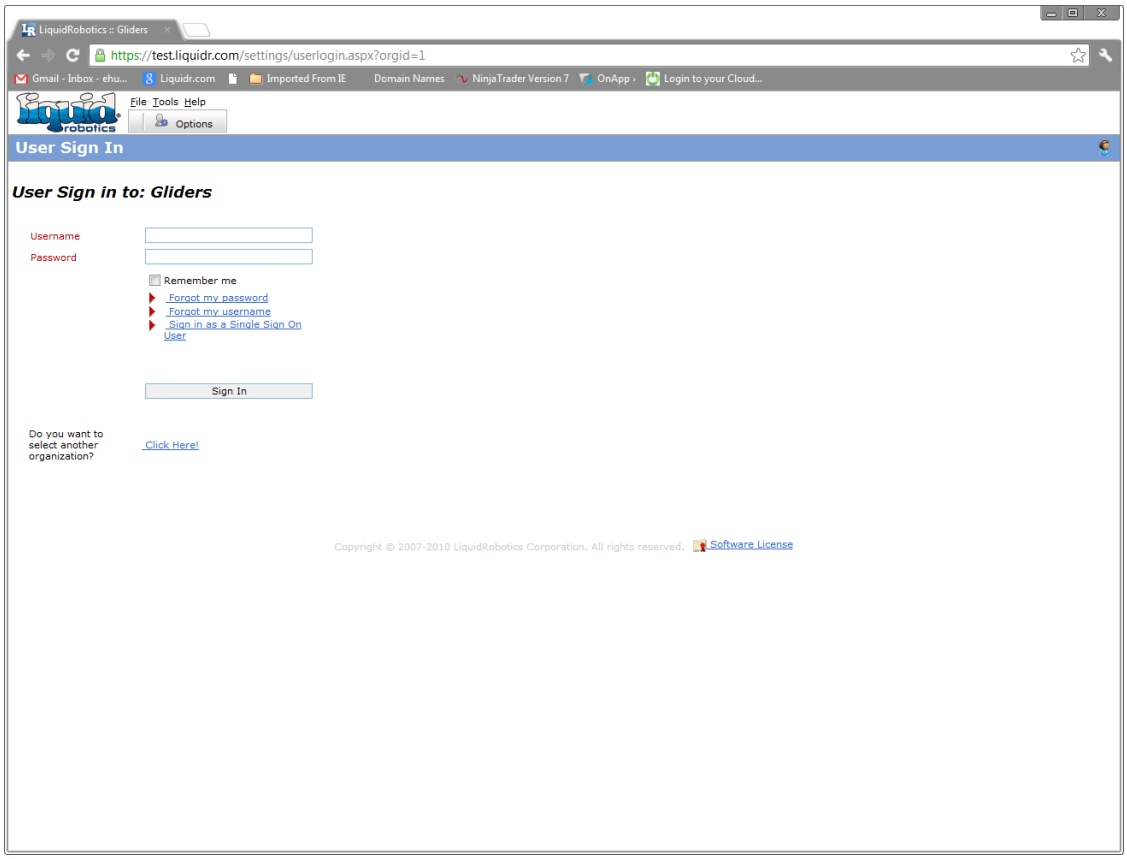
6. Support for multiple crypto chips on the vehicle

User Experience Changes

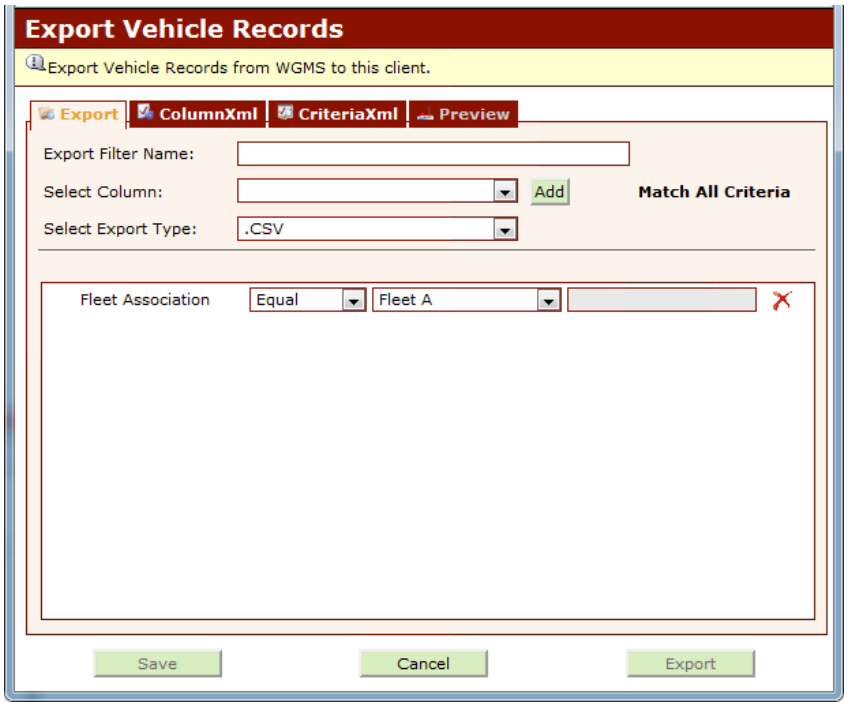
Fleet Views in Dashboard and Vehicles Grid:



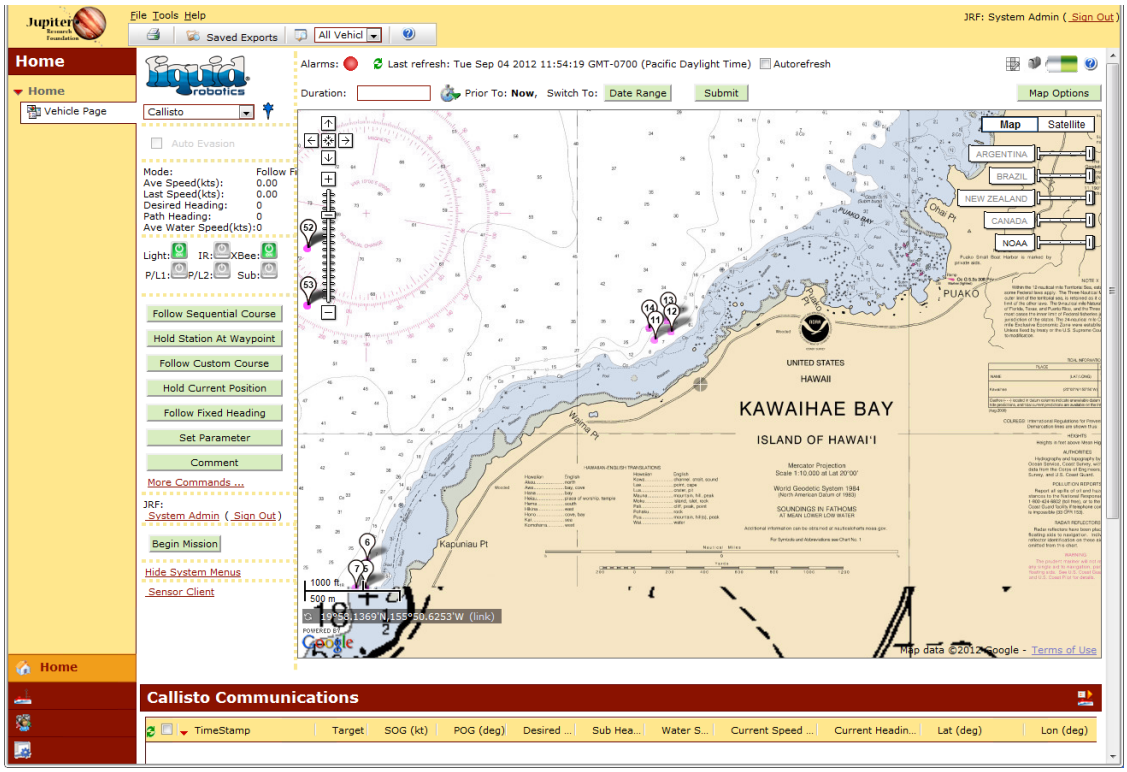
Domain User Login:



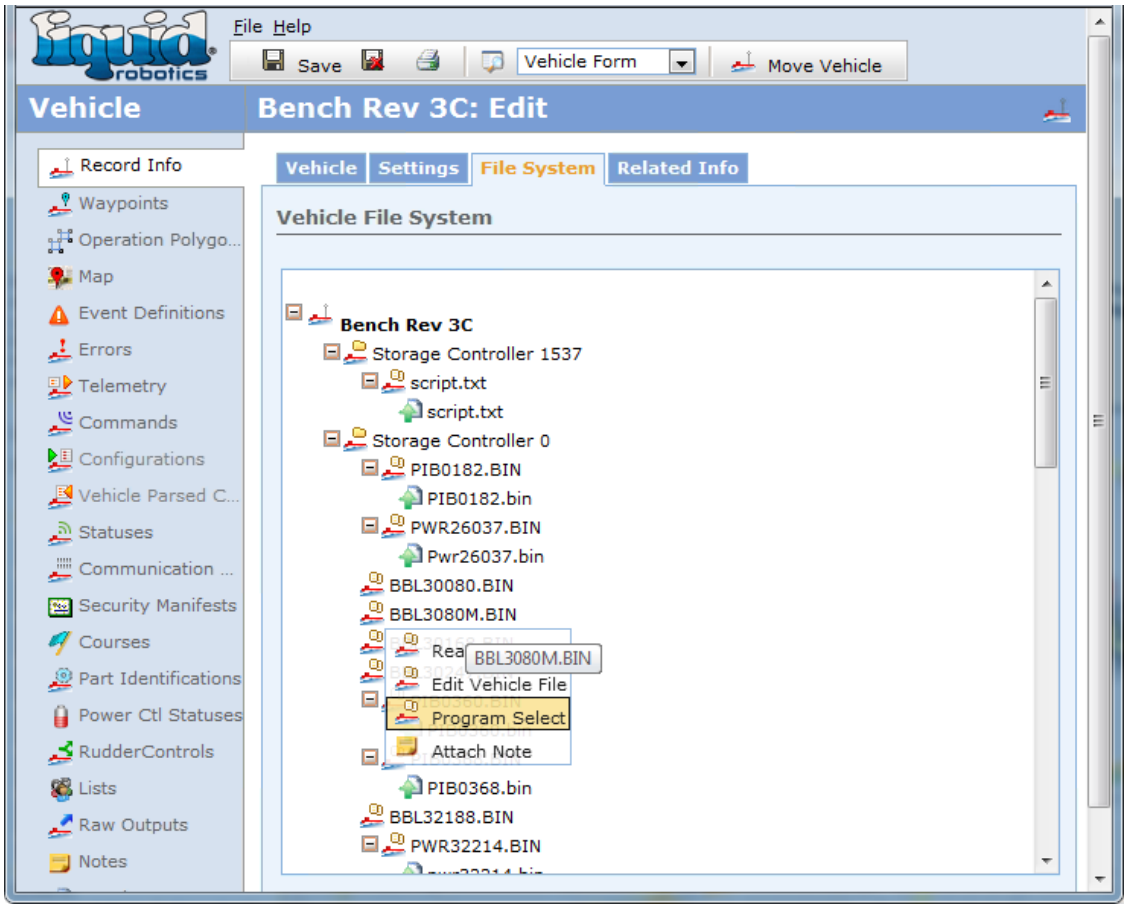
User Friendly auto populated export criteria:



More Nautical Charts supported:



Program Select from Vehicle file without attachment:



New Features

HYP-753	Add filter field to vehicle entity (lightweight fleet association)
HYP-1115	Hiding orgs from org select
HYP-1163	Exporting sensor data in a more user friendly manner
HYP-1010	Permit all Write Console Script acknowledgments to be concatenated and saved
HYP-1057	Make WG file system list entries populate the More Commands file selection, even if there is no attachment (Manufacturing process improvement)
HYP-1141	Vehicle-specific WGMS macros
HYP-1177	Integrate Geo-Garage Canada Nautical Charts Layer to Dashboard map.
HYP-1185	Add PacIOOS global currents map layer
HYP-1186	Allow Active Directory users to map to WGMS user, and use integrated authentication
HYP-1201	Add day/night display for the map (date time sensitive) to show pilots when gliders get sunlight
HYP-1218	Use vehicle public key returned in Secure On Ack to validate the crypto session
HYP-1093	Display Progress of Read or Write File Transactions

Bug Fixes

HYP-244	Set/Retrieve Parameter Feature
HYP-645	Custom Course Dialog - Up/Down broken - Other Usability Issues
HYP-1169	AIS Outer Angle has the wrong parameter size value
HYP-1195	Path Vector Tool not functioning after crossing equator
HYP-1022	WGMS serves client-side JavaScript files to unauthenticated users
HYP-1108	pilot tools current calculation when WS sensor just turned on averages with 0 readings from previous telemetry
HYP-1164	When the user issues a file write block command WGMS displays an error message.
HYP-1165	When the user issues a set course w/options command WGMS displays an error message.
HYP-1166	When the user issues a set rudder controls command WGMS displays an error message.
HYP-1172	Phone number on About Us page is incorrect
HYP-1173	Toggle WP doesn't always work
HYP-1174	Server error message associated to the optimistic concurrency is misleading.
HYP-1178	Parsing of 4 byte floating point is not working correctly on Calculated columns function byte field
HYP-1181	Raw Packet Time Of Session Display
HYP-1182	The QA team is having problems automating test cases related to the export form.
HYP-1189	Fix export last 24 hours (and all other day specific) conditions to start from user now
HYP-1190	Cleanup URL conversion issues to wgms.com
HYP-1204	additional file attachments appear on vehicle
HYP-1209	When sending a File write Init command the blocks that fail are tried incorrectly. If block 30 failed WGMS retries block 31.
HYP-1215	SECURITY: Admin user can edit root users roles
HYP-1107	Multiple Read File Transaction Closed Commands

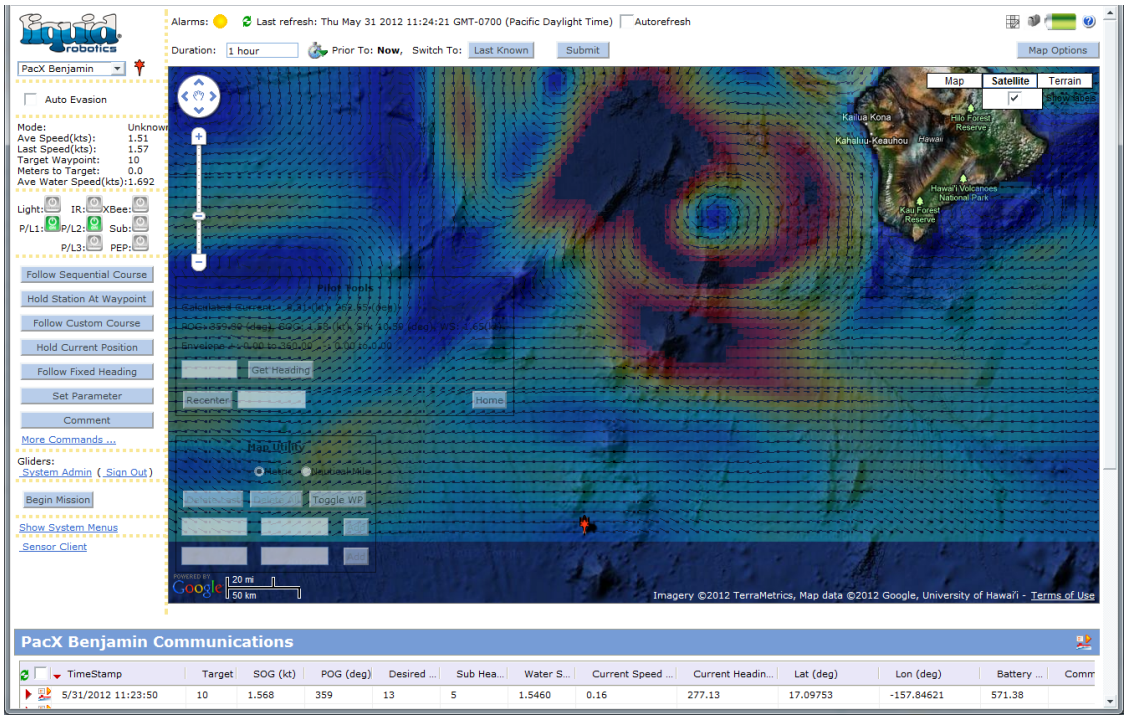
Changes in Version 4.0.5

Principal Changes

This release is mainly a culmination of security bug fixes.

User Experience Changes

New PacIOOS currents display for Hawaii:



New Features

HYP-1158	Add support for rendering PacIOOS ocean current displays
HYP-1161	Add Ocean Current column to telemetry

Bug Fixes

HYP-1140	Default com channel inconsistent
HYP-1143	SECURITY:In the "Vehicle/Operation Polygons" when the user creates a new operation polygon the polygon name text box allows the user to insert code that creates a button in the application.
HYP-1134	Payload Statuses and Raw Outputs display same data on vehicle form when in Vehicle Data Form mode
HYP-1138	Can't send a WGMS command that contains the character '+'
HYP-1139	Writing HTML encoding sequences in macro editor stores the decoded value rather than the sequence
HYP-1142	Init File Write where the file's extension is 2 characters wide causes 'Server Error'
HYP-1144	SECURITY: When the user enters a non existing email in the "forgot my username" link WGMS displays an error message that gives to much information.
HYP-1145	SECURITY: A Admin user can edit users information and obtain root role permissions.
HYP-1146	SECURITY: A master user can edit users information and obtain root role permissions.
HYP-1147	The "Move Vehicle" option in the "Vehicle" menu, doesn't copy the vehicle to another organization.

HYP-1148	In the login page after a user asks for a new username with the "forgot username link" WGMS lets that user enter the system with his old username.
HYP-1149	In the login page when the user asks for a new username with the "forgot username link" WGMS shows a message that a new temporary password will be sent instead of a new username.
HYP-1150	Comments on Set Parameter are not properly encoded
HYP-1151	SECURITY: Only include information about Liquid Robotics WGMS DLLs in the AboutUs page
HYP-1152	SHOUT Tracker minute decimal processing bug
HYP-1153	Add support for processing TRIG Tracker Telemetry
HYP-1154	When issuing command ais; wx; water on using Chrome command reason returned reads "ais,wx,water". This happens regularly
HYP-1157	Retrieve Log File command causes ServerError
HYP-1159	Fix ack alarm when vessel name has single quote in it.
HYP-1160	SECURITY: A master user can edit admin users information and obtain Admin role permissions.

Changes in Version 4.0.4

Principal Changes

This release has been centered on several important features:

1. Introduction of encryption Key Values stored in WGMS database, to allow for data acquisition sessions to be preserved.
2. Enhancing the Crypto Library used by the Packet Reflector (Virtual Relay), and Iridium Relays to restart encryption sessions with vehicles.

Changes in Version 4.0.3

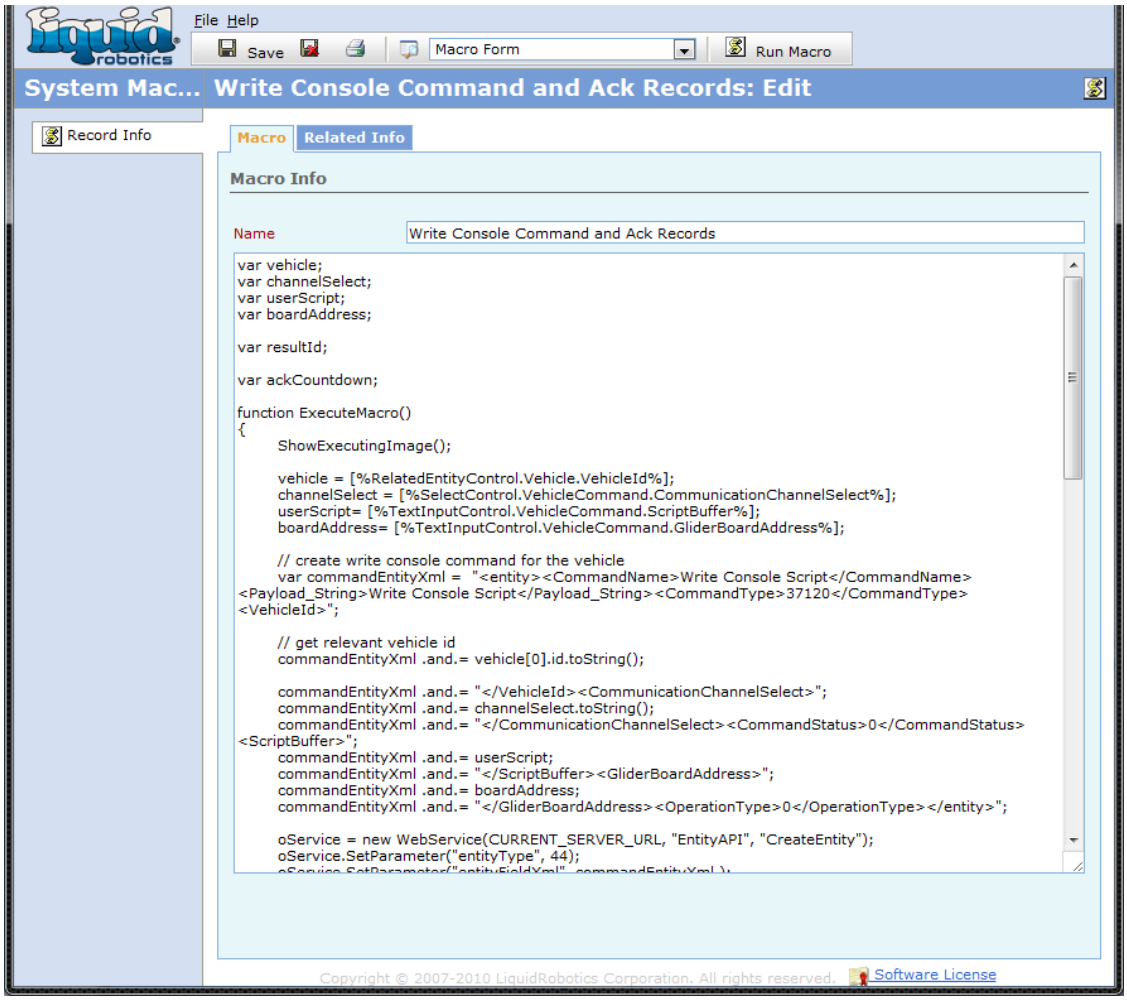
Principal Changes

This release has been centered on several important features:

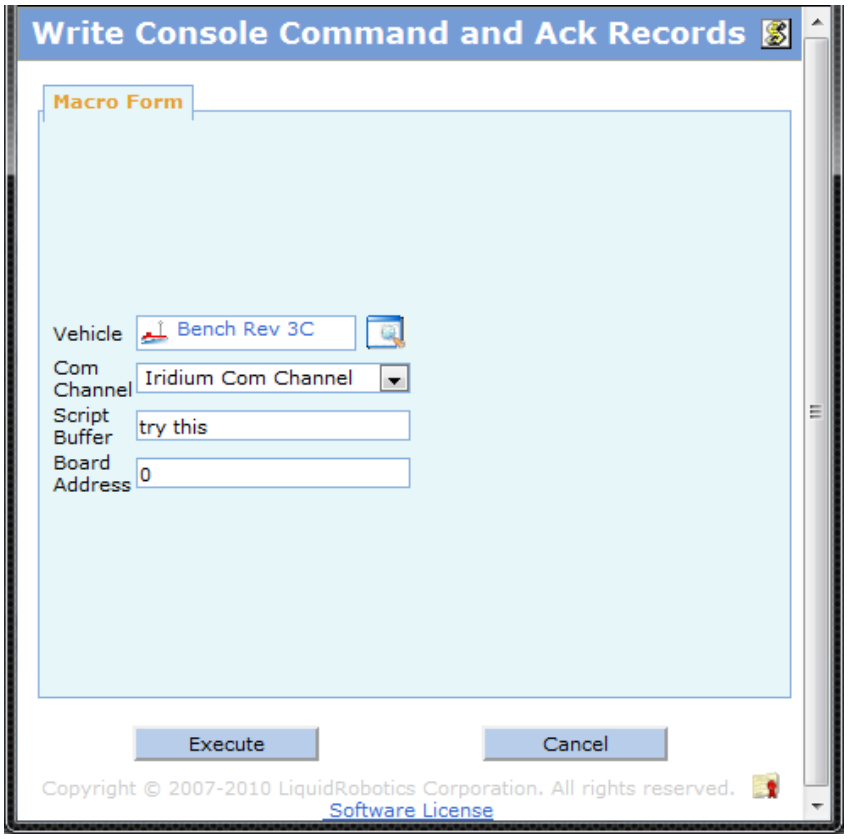
1. Introduction of Macro scripts in WGMS, to allow for aggregation of actions into a single script.
2. Testing of virtual relays in secure mode
3. Passwords are no longer stored encrypted in the database, but are hashed instead. This means that user forgot password will be given a new temporary one instead of his old password.
4. Migration to Google Maps API level 3, for improved performance.
5. Aggregation of AIS markers in high density areas.

User Experience Changes

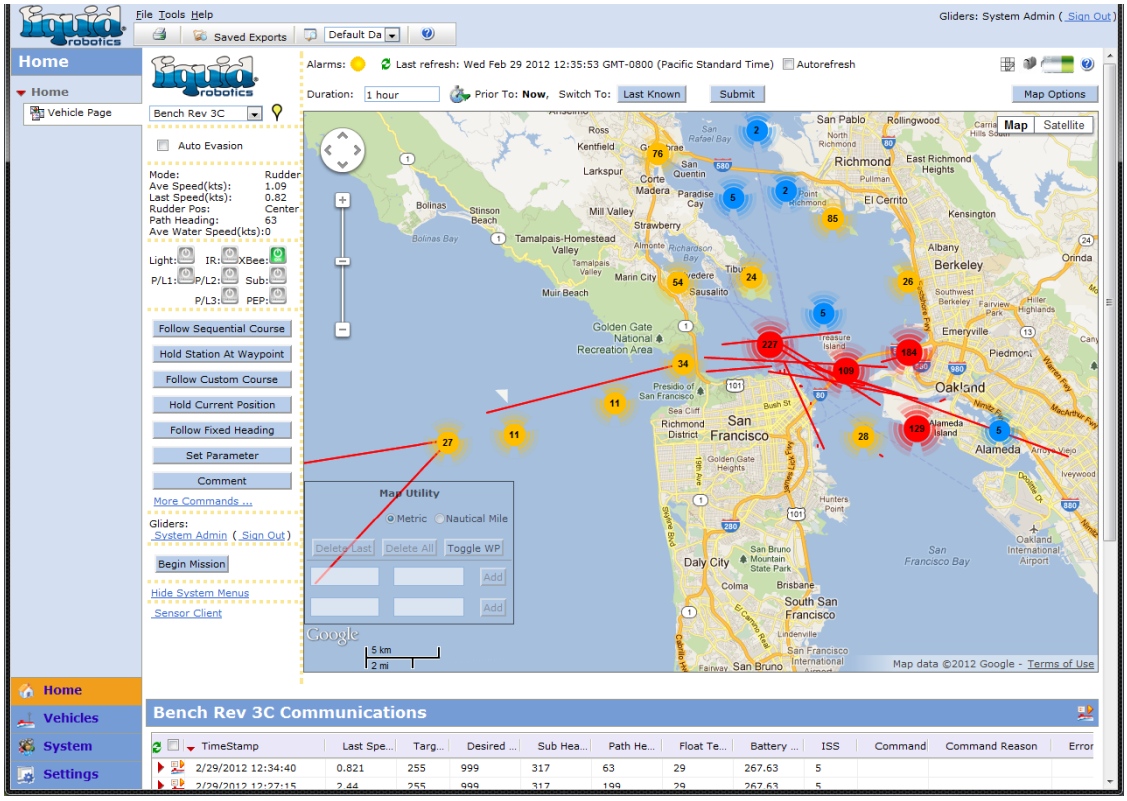
Macro editing:



Macro execution:



Google maps API 3 and AIS marker aggregation:



New Features

HYP-834	Commands issued and never responded to by vehicle should be timed out
HYP-1054	Switch to hashing passwords and eliminating stored DB copies of passwords
HYP-620	SMC Encrypted partition and new 0x71 packet support
HYP-968	Add a toggle for displaying way points
HYP-1001	Command Select Grouping
HYP-1050	Display Relay Source for data into WGMS
HYP-1055	Add a display indication on AIS vessels that have towing status
HYP-1059	Allow users to create "Macros" using client side JavaScript
HYP-1065	Google Maps API v3 migration
HYP-1066	Cluster AIS markers in high traffic AIS areas

Bug Fixes

HYP-508	Add hint field to Set Unique Id being the vehicle name
HYP-1075	Command Reason can't contain un-escaped XML characters like &
HYP-1078	Should not be able to resend commands
HYP-1080	System Error caused viewing tracker telemetry
HYP-1089	guest user should not access saved exports button in the toolbar
HYP-1092	Navigation Mode on Dashboard does not always display properly
HYP-1097	Logon Issue for WGMS
HYP-669	KML feature improvements
HYP-701	Retry in file transfer requested when not needed
HYP-1035	USER PIN for Multi factor should be set by the USER only
HYP-1060	Strange screen drawing artifact
HYP-1067	Program Select doesn't work in the Vehicle Form under File System
HYP-1068	In the "Vehicle" form WGMS is taking more than the expected time loading the parts tree
HYP-1070	Adding WGMS username at the time of account creation
HYP-1072	Use mission escalation list for all vehicles in a mission
HYP-1073	In the "More Commands" form, when the user clicks on the "Copy..." button nothing happens
HYP-1077	Timestamp not displaying in correct timezone
HYP-1082	XML sequences in Write Console Ack can disrupt display of Raw Outputs attached to command
HYP-1083	In the "Vehicle/Operation Polygons" when the user wants to create an operation coordinate the WGMS allows invalid longitude and latitude.
HYP-1084	Different parameters are required when the user issues a "File Write Init" command in Chrome and in firefox
HYP-1085	The "Copy from another Macro" button, when the user tries to create a new Macro, the WGMS displays an error message

HYP-1088	In the System/Macros,when a user tries to execute a Macro after clicking on the relatedOn icon of the vehicle , the WGMS displays an error message.(IE Only)
HYP-1090	When try to create a new "Storage Controller" in a vehicle the "Copy .." button displays a system error message
HYP-1095	Iridium Location coordinate display should change
HYP-1096	When the user enters javascript code or tags in new commands the command list is not blocked but when the user creates a waypoint or an operation polygon with javascript the lists get blocked
HYP-1076	WGMS User Info Form Improvement

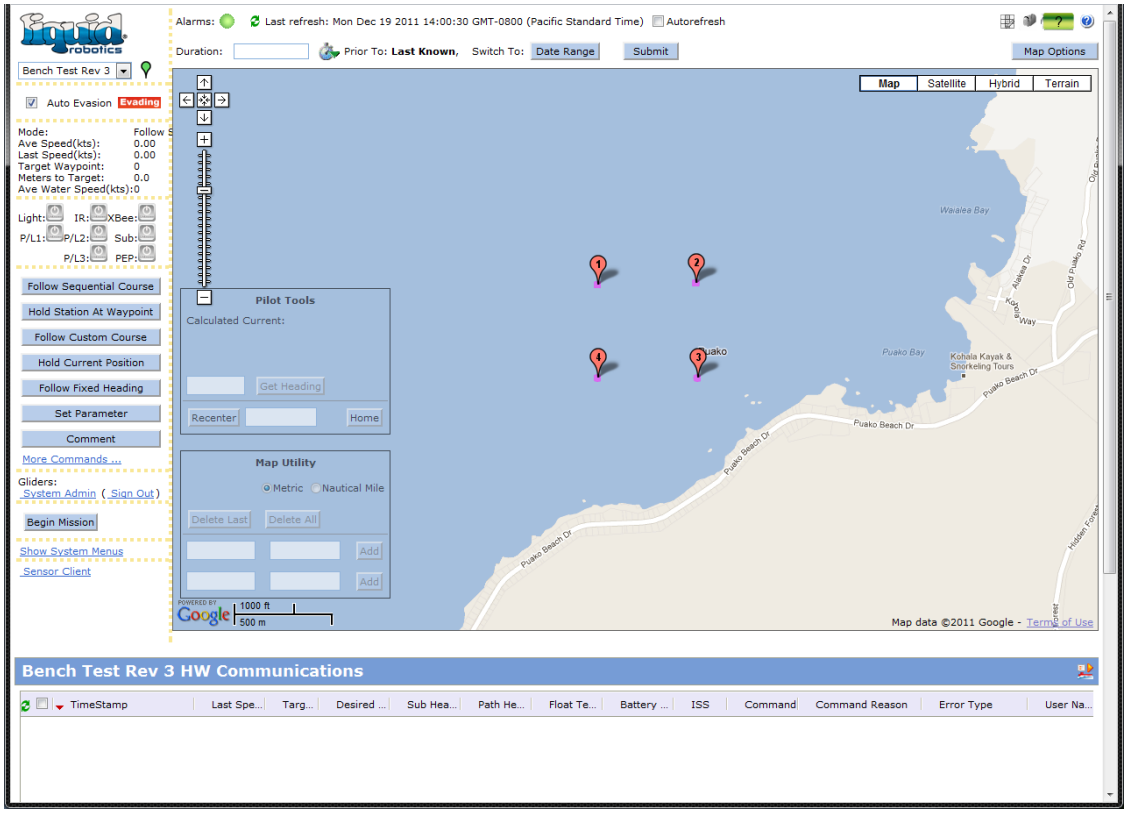
Changes in Version 4.0.2

Principal Changes

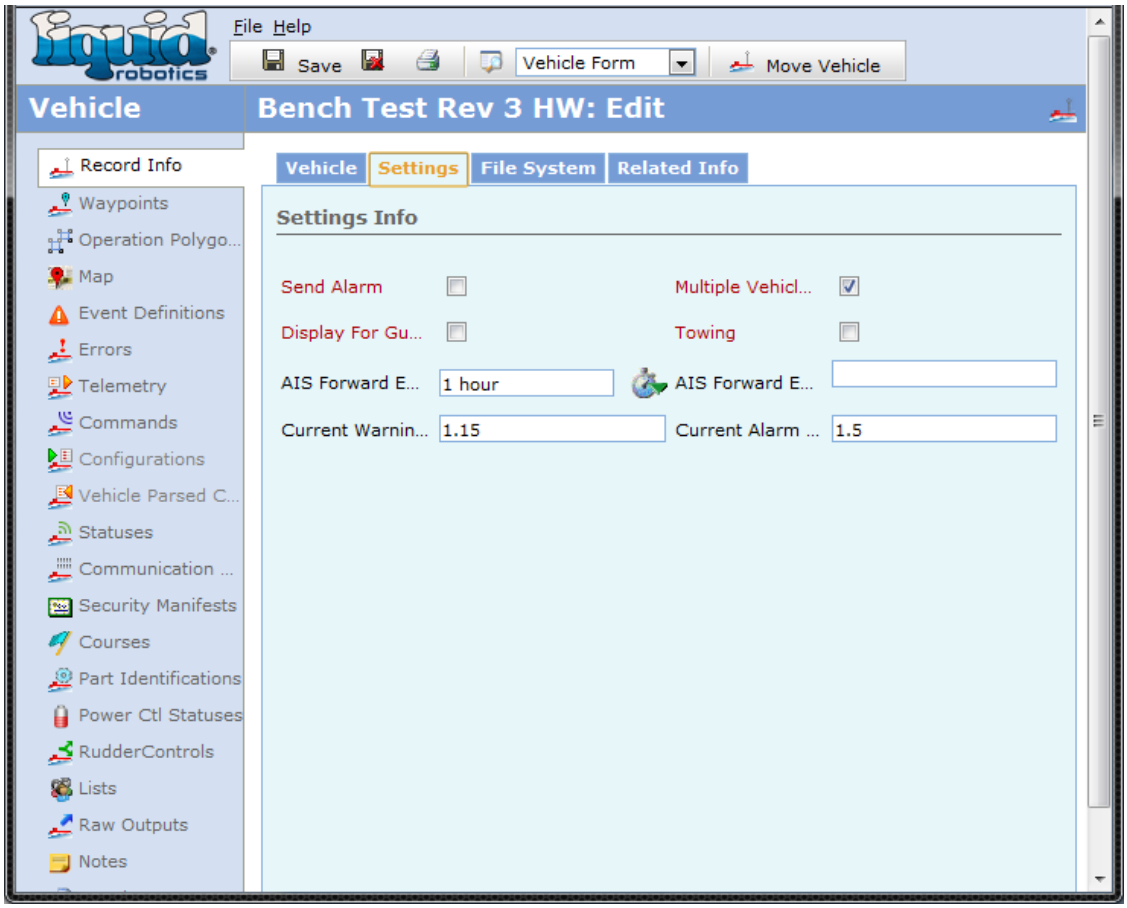
This release has been centered on the introduction of the Virtual Relay Capability, the optional “Auto Evasion” capability in the case of unattended Path Alarms, and the strong current alarm and warning with programmable levels.

User Experience Changes

Auto Evasion enabled vehicles will be issued “Follow Fixed Heading” to escape oncoming AIS vessel in a path alarm state.



New ocean current limits for warning and alarm:



New Features

HYP-492	Change Dashboard combined outputs
HYP-924	Virtual Relay - Packet Reflector Protocol
HYP-1048	Implement Auto Evasion for enabled vehicles
HYP-1049	Fire Ocean Current warning and alarm for currents stronger than a specified threshold in kt

Bug Fixes

HYP-663	"Options" should be removed from the task bar
HYP-668	Data Export: errors when exporting to Excel
HYP-701	Retry in file transfer requested when not needed
HYP-1024	Login issue when using Firefox on Linux OS
HYP-1029	Even though no manifest is associated, Secure On command can be selected (vehicles never show that they are in secure mode)
HYP-1032	Invalid duration in form input field raises a server exception
HYP-1051	Email Username sends email and not the username.
HYP-1052	Battery Icon does not update
HYP-1053	User Forgot Password Email (Do Not Reply)

Changes in Version 4.0.1

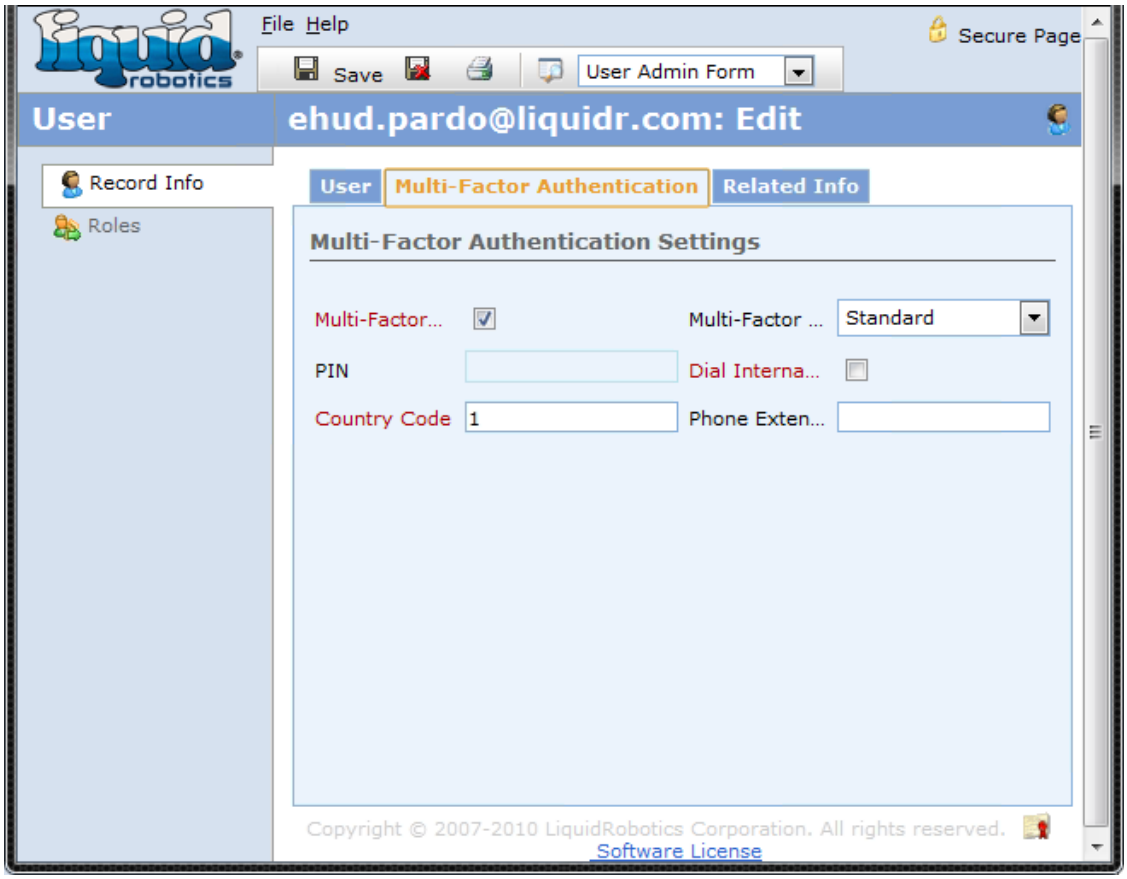
Principal Changes

Release 4.0.1 was mainly about enhanced security functions of WGMS

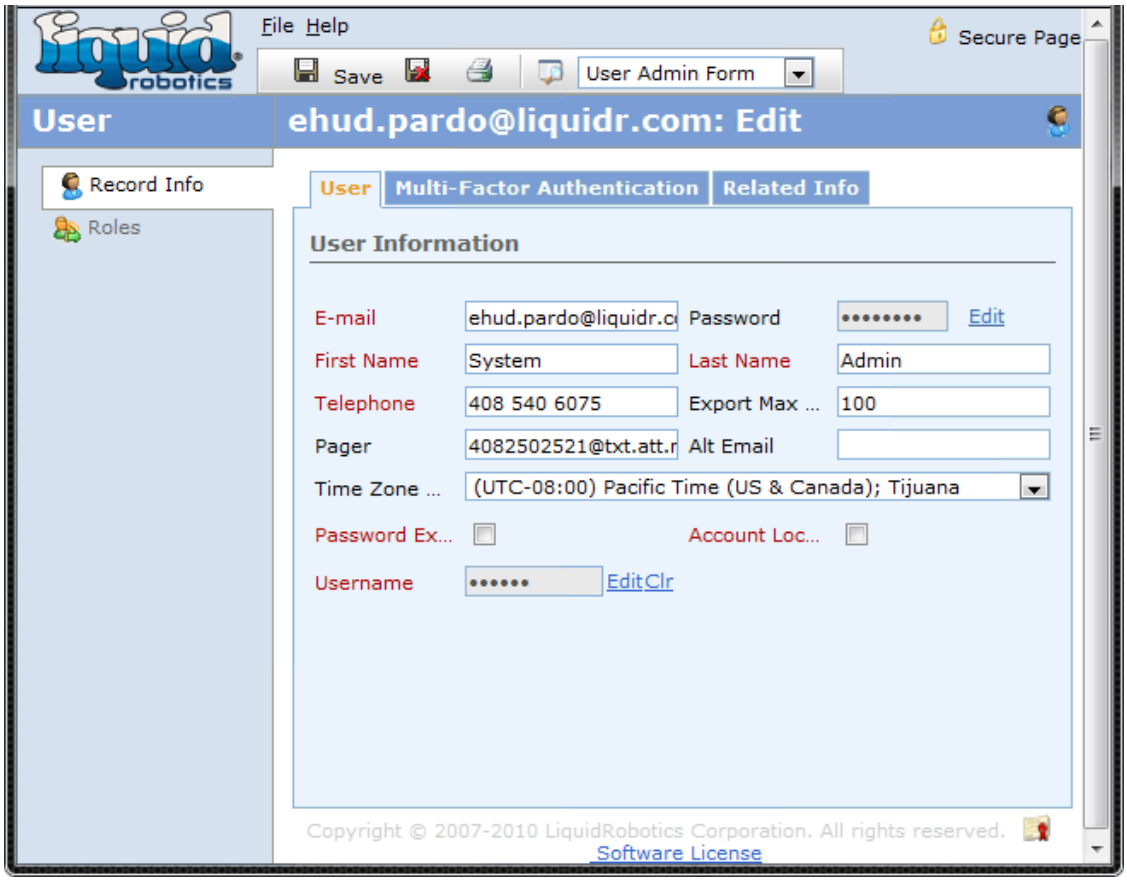
- Implement username/password for sign in
- Multi-Factor authentication per user
- Stronger password strength requirements
- Fixed security bugs

User Experience Changes

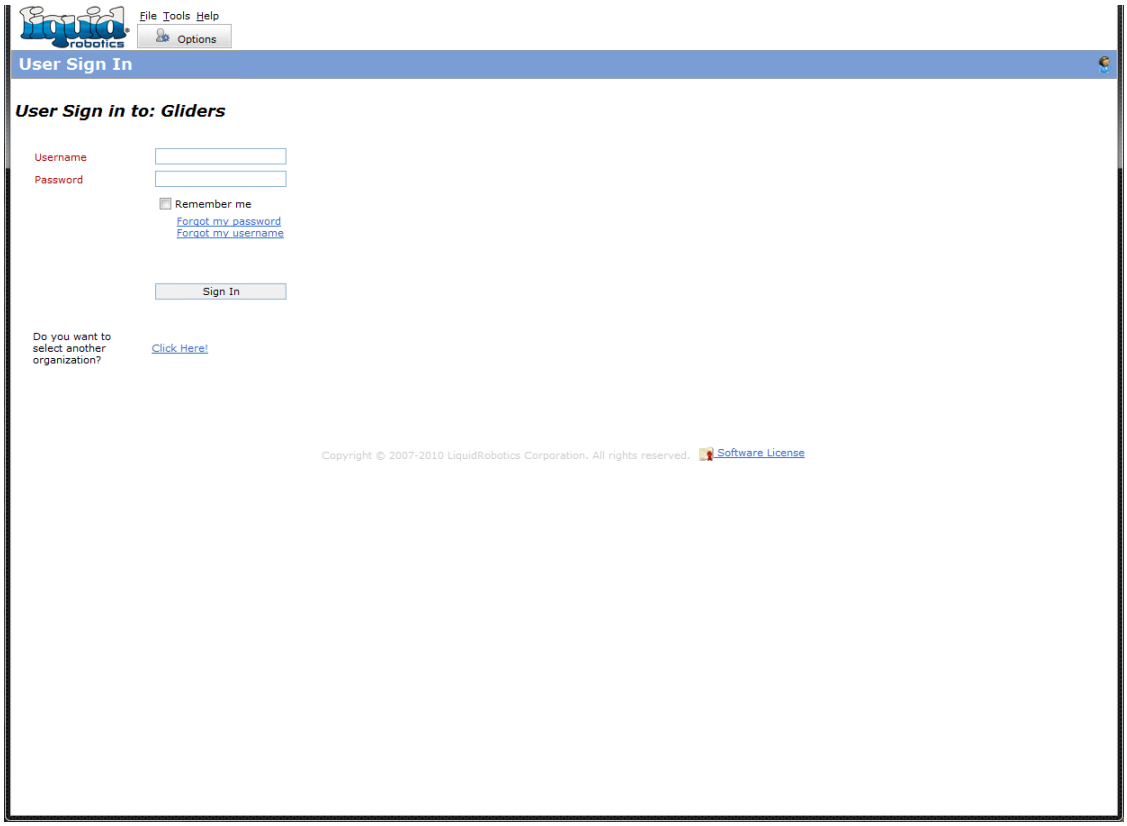
User Admin Form Multi-Factor management tab:



User Admin Form:



Username in User login page:



New Features

HYP-1026	Multi-factor authentication for selected users in WGMS
HYP-1009	Use User Id instead of email for users sign in credentials
HYP-1012	after 3 unsuccessful login attempts for a User Id, account should be locked out
HYP-1027	Packet Reflector changes for Failover Support

Bug Fixes

HYP-1034	Vehicles in orgs other than root org don't display secure mode after successful secure session is established
HYP-1011	IMEI edit should only be allowed for root user
HYP-1014	Create new Provision Role and reduce Master role parts access
HYP-1015	User login notifications
HYP-1019	Require Current Password for Password Changes
HYP-1020	Setting a user password should force the user to use a strong password
HYP-1021	Forgot password form can be used to determine valid user IDs
HYP-1025	In the "Home" page in the "Comment Command" window when the user sends a command the WGMS allows him to enter javascript code that retrieves the browser cookies information in a popup window
HYP-1028	Fix Iridium Relay Secure Client Cache Ops

HYP-1036	The WGMS creates a new Rudder Control and displays a system error message, when the user leaves necessary information fields empty and uses the "Save " button.
HYP-1037	In Toolbar ,when the user clicks on the "Options" button , the WGSM display an error message.(admin,only).
HYP-1038	The "Copy from another Restriction" option when adding a Restriction, displays an error message.
HYP-1039	In the "More Commands" form, the information of a command is not copied, when the user uses the "Copy..." functionality
HYP-1040	In the "Vehicles/Courses" menu when the user wants to save but don't send a course the button doesn't work

Changes in Version 4.0.0

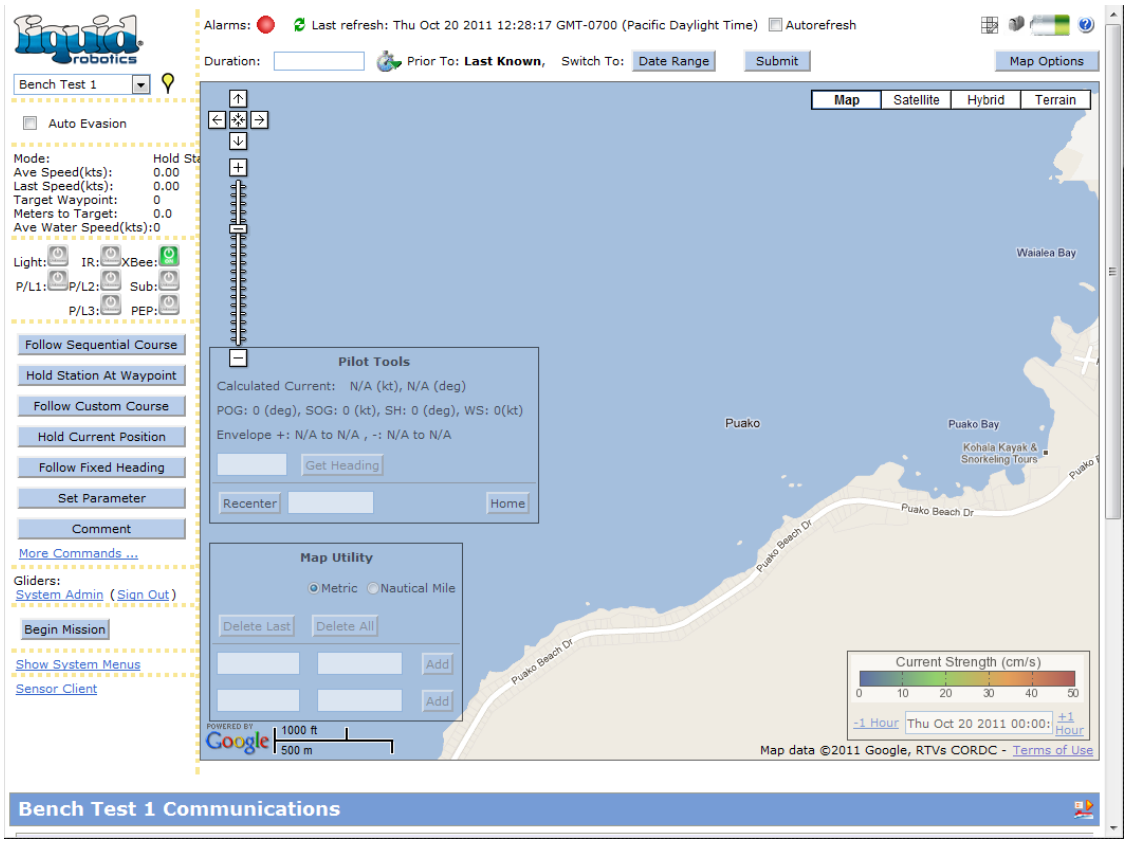
Principal Changes

Release 4.0.0 was mainly about the completion of cross browser compatibility

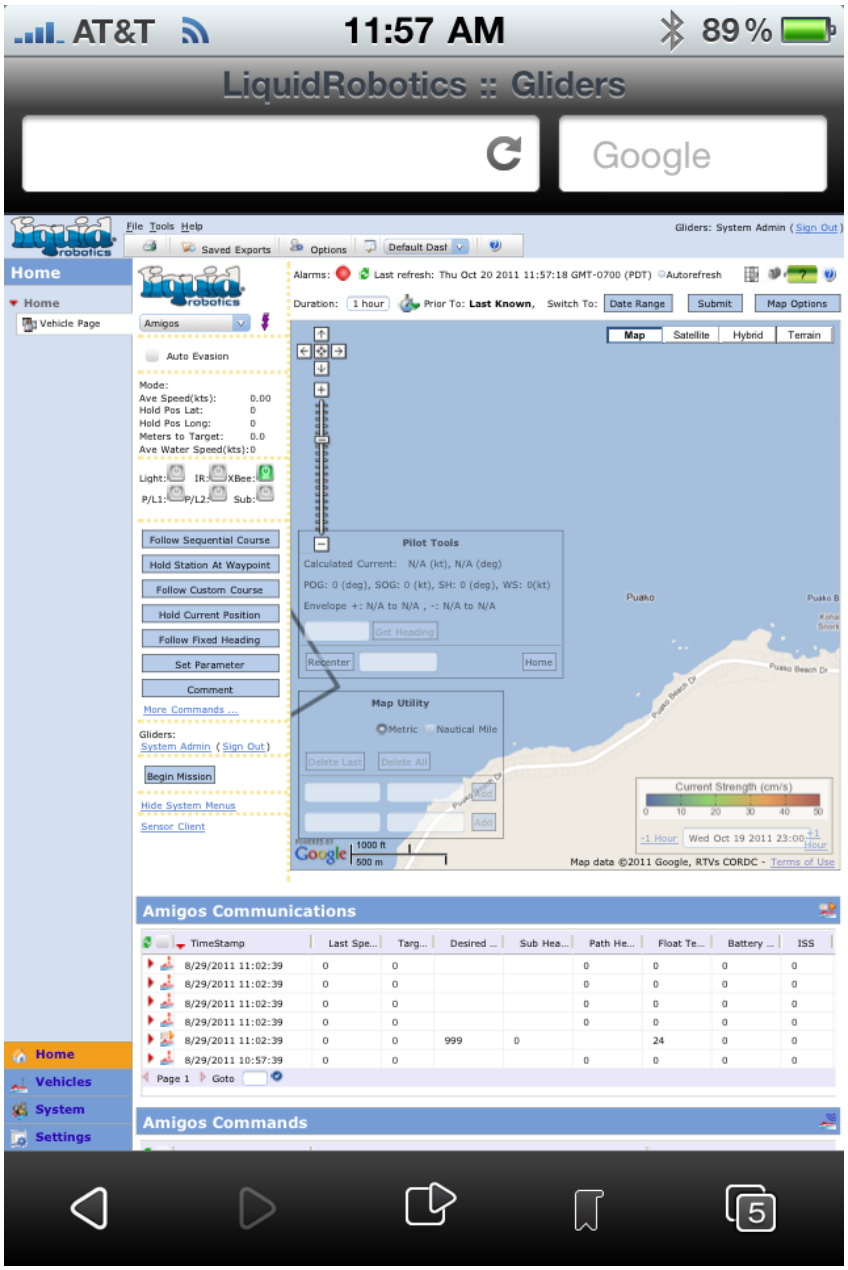
- Cross Browser Date and Time controls
- Line Following indicator control
- Support for both iPad and iPhone browsers

User Experience Changes

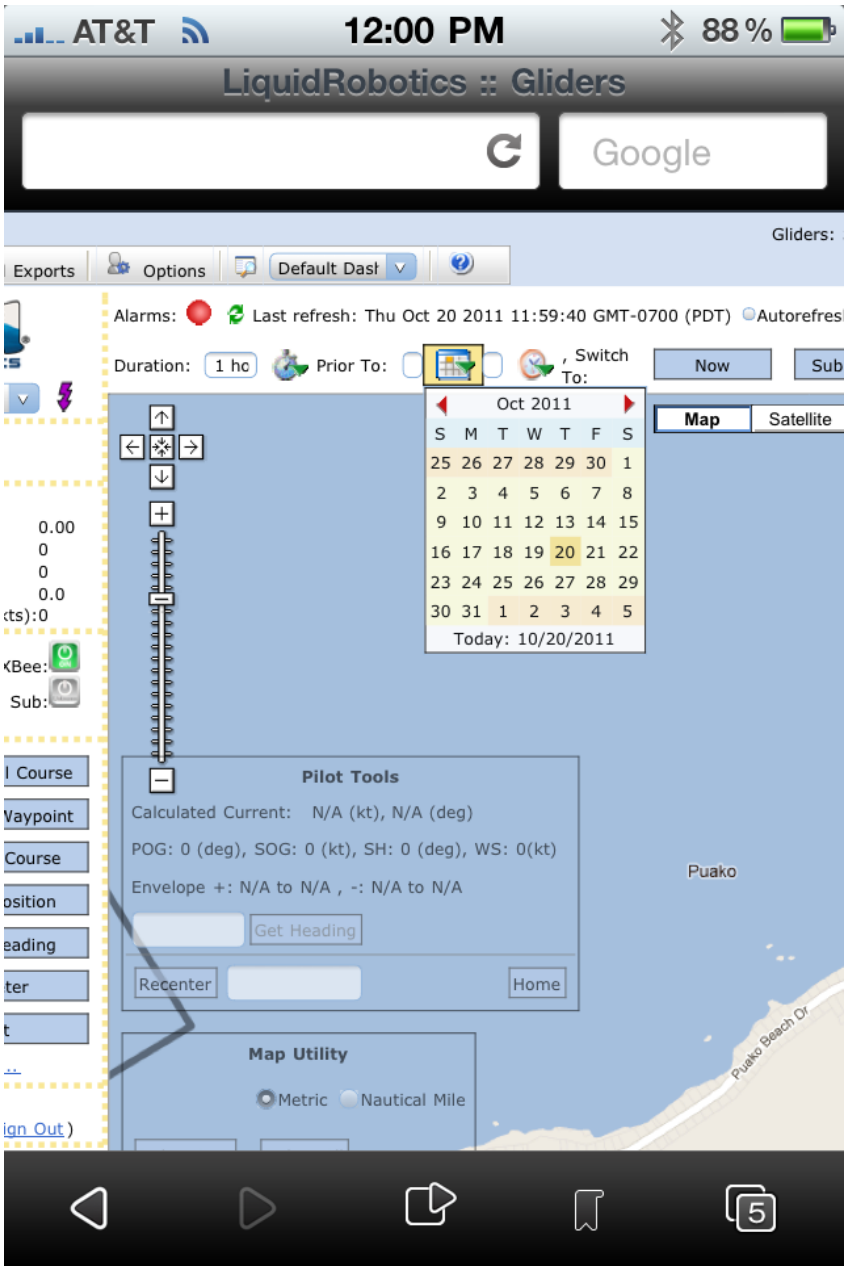
Added Line Following Control:



iPhone and iPad support:



Date and Time Controls (cross browser)



New Features

HYP-695	Adding water speed columns to telemetry export tool
HYP-706	Visibility of relay status and errors in WGMS
HYP-821	Add vehicle Status - Active/Not Active to allow for multiple vehicles designation
HYP-960	Implement Vehicle Form "Transfer Vehicle" button to allow for Vehicles to be "returned" to root org
HYP-963	Add average water speed to WGMS dashboard
HYP-972	Label Datawell MOSE Record Columns
HYP-975	Observing and Exporting Sensor data out of WGMS with related views

HYP-984	Modify default parts list creation for vehicles
HYP-985	Add recommended direction on Path alarms and warnings
HYP-987	Add Multiply/Add capability to Calculated Columns
HYP-990	Logging command
HYP-696	Adding vehicle name to export tool output

Bug Fixes

HYP-718	Changing and saving export filter doesn't save changes
HYP-965	Some grids don't convert TimeStamp columns to user time zone
HYP-973	Heading Calculation error on Pilot tools.
HYP-739	Mission Document Link: When it isn't a fully-specified link, it gets completed by adding http://test.liquidr.com
HYP-808	Implement Line Following Info Parsing
HYP-910	Add date control popups for Cross Browser functionality
HYP-960	Implement Vehicle Form "Transfer Vehicle" button to allow for Vehicles to be "returned" to root org
HYP-961	Alphabetize "set parameters" list
HYP-962	Alphabetize glider list in "map options"
HYP-966	In the "Map Options" menu when the user clicks on the "durationPickerOn" icon the time list is partially displayed
HYP-967	In the "Map Options" menu when the user clicks on the Path Vector "durationPickerOn" icon nothing happens
HYP-969	In the "New Course Waypoint" dialog, the "Copy From Another Course Waypoint" functionality displays a System Error message
HYP-970	In the "Weather Station/Weather Reports" menu, the "File/New" option is available for "Admin" and "Master" user roles
HYP-971	In the "Courses/CourseWaypoint" dialog, the List Scrolling bars are not displayed. (FireFox Only)
HYP-976	Fix export last 24 hours criteria load error
HYP-979	The "Copy to Another Note" feature in the "RecordInfo/PartNotes" dialog, displays a System Error message
HYP-980	When creating a new Waypoint with invalid information, the WGMS displays a system error message.
HYP-983	add additional event definitions for the default set created with vehicle
HYP-986	Non sortable columns (such as calculated columns) should not allow user to click - sort header in grid
HYP-988	The Entities Lists are not refreshing after create a new Entity.
HYP-989	When the user tries to print a command, the WGMS displays an error message.
HYP-991	The WGMS displays an error message, when the user enters "0" in the "GoTo" page navigation functionality.
HYP-992	When the user wants to export operation polygons, the WGMS displays an error message
HYP-993	Issue alert when user sends command not in default com channel

HYP-995	Time Field in Data Export Uses AM/PM
HYP-997	The "Part Info" List, doesn't work properly when edit an existent part, selecting the part itself as parent part.
HYP-998	The "Copy To Another Vehicle..." option in the "Course" menu, doesn't copy the course to another vehicle.
HYP-999	The WGMS displays an error message, when the user tries to delete a "Criteria" using the "Delete" button.
HYP-1000	When creating a new Waypoint, the "Save but don't send" feature generates different statuses, when creates it from scratch or use the "Copy from" functionality (Internet Explorer Only)
HYP-1008	Admin use can elevate himself or others to root
HYP-553	Cannot export command history to excel
HYP-920	Time entry & saving issue within "Export PayloadPacket Records"
HYP-939	Breadcrumbs not displayed when latitude or longitude is 0
HYP-974	Time Field in Data Export Uses AM/PM