



## **Global Record**

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# **HLR1 Vessel identification information: Detailed Requirements**

**11 June 2010**

**Version 0.3**  
**Jamie Cameron**

FINNZ  
Level 6  
135 Victoria Street  
Wellington  
New Zealand  
PO Box 24441  
Manners St  
Wellington  
Ph 04 460 9500  
Fax 04 460 9590  
[www.finnz.com](http://www.finnz.com)

## Table of Contents

<b>1</b>	<b>Introduction</b> .....	<b>4</b>
1.1	Document purpose.....	4
1.2	Intended audience .....	5
1.3	Background.....	5
1.4	Definitions and Acronyms .....	6
<b>2</b>	<b>HLR1: Vessels</b> .....	<b>7</b>
2.1	Detailed Requirements .....	7

## Document Version History

Version No.	Date	Author	Summary of changes
0.1	13 May 2010	Jamie Cameron	Initial draft
0.2	20 May 2010	Jamie Cameron	Updates based on Shaun Driscoll's feedback made.
0.3	11 June 2010	Jamie Cameron	Further updates made based on discussion with Dan Martin.

## Document Information

This document is stored in: [Global Record - DR1 Vessels.docx](#)

# 1 Introduction

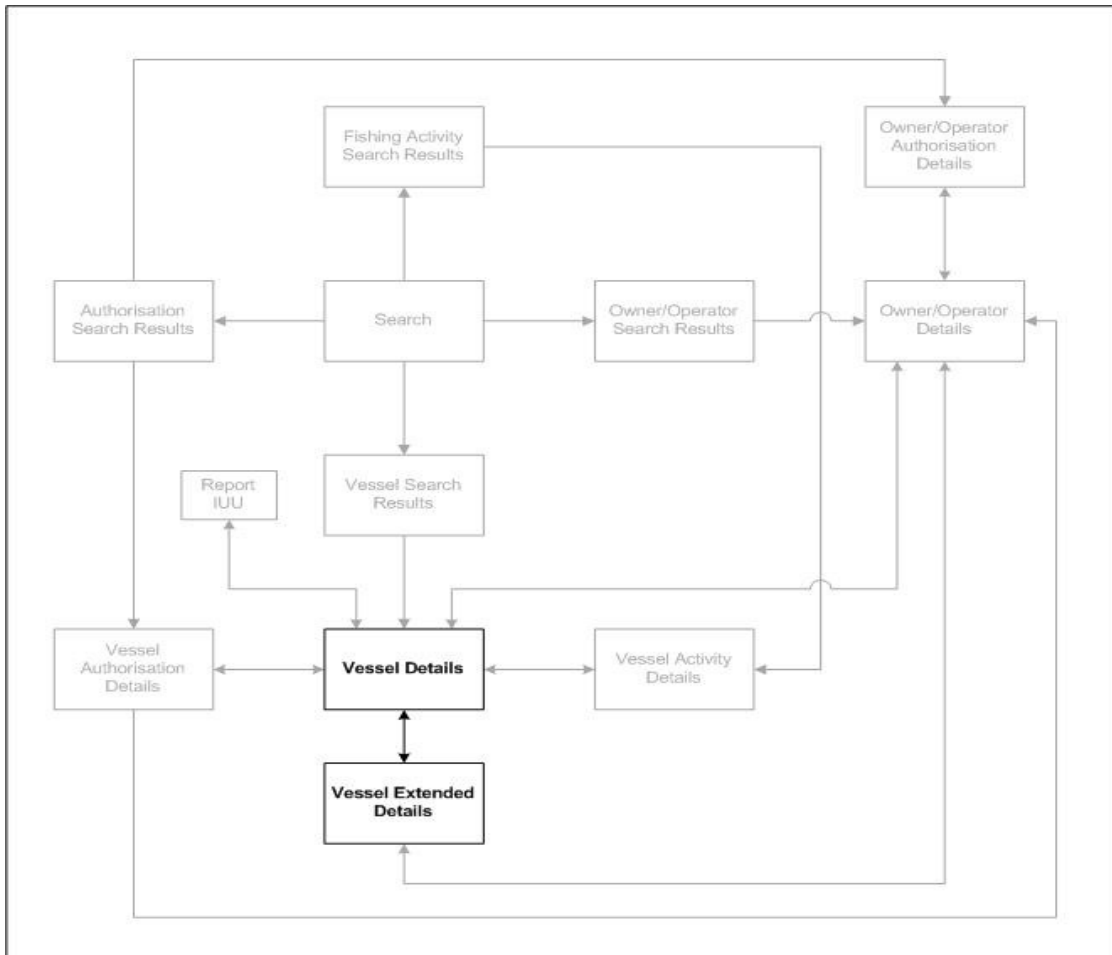
## 1.1 Document purpose

The purpose of this detailed requirements document is to further define the expectations of the GR in respect to the high level requirement for Vessel identification information. The detailed requirements identified identify the functionality that is required to support this HLR and a clear indication of what must be developed as part of the GR.

The vessel identification information area relates to the capturing of vessel information to provide a detailed history of the vessel itself and its owner/operator history. This is a key part of the GR as it attempts to track the vessel over its entire history so a vessel simply changing its name is not able to escape censor for any IUU activity.

The UVI will be at the core of vessel identification. It will provide a constant reference point and remain unaffected by other changes to the vessel description. Nevertheless, the full description of the vessel will comprise a range of features and identifiers which over time will be expanded to the fullest possible extent. A vessel record will be searchable via a number of search parameters (e.g. vessel name, UVI, MMSI Number, etc) but vessel-related information will be linked to the core vessel record by way of the UVI only.

The following diagram illustrates which components of the GR are covered within this document:<sup>1</sup>



<sup>1</sup> It is important to note that whilst the diagram illustrates the types of information modules that may be attached to the vessel record in future, it is by no means a definitive list, nor is it an approved list at this stage.

## 1.2 Intended audience

The audience for this document includes:

- *FAO*
- *Global record stakeholders*

## 1.3 Background

The need for a Comprehensive Global Record of Fishing Vessels was acknowledged as far back as 2002 in the implementation guidelines for the International Plan of Action to Prevent Deter and Eliminate Illegal, Unreported and Unregulated Fishing (IPOA-IUU) where it was acknowledged that the lack of such a tool produced a situation that undoubtedly creates opportunities for IUU vessels to escape detection. Subsequently, in the Rome Declaration on IUU Fishing, ministers called for the development of a comprehensive global record of fishing vessels within FAO, including refrigerated transport vessels and supply vessels. Following this, Proposal 2 of the Final Report “Closing the Net” produced by the High Seas Task Force (HSTF) promotes the establishment of a global information system on high seas fishing vessels. The purpose of this system is to combat the lack of access to transparent and authoritative information about the ownership, control and movements of fishing vessels. Provision of this information to Fisheries Management Organisations, Port States, Fisheries Enforcement and MCS authorities and other interested parties will enable actions to be undertaken to restrict and expose Illegal, Unregulated and Unreported (IUU) fishing activity.

It is widely recognized that one of the significant barriers to eliminating IUU fishing is a lack of transparency and traceability in the global fishing sector. States implement individual measures without the benefit of any sort of global information picture and there is no single source where useful and relevant information can be collated, stored and displayed. One of the major enablers of IUU fishing is the lack of information about the global fishing fleet or the wide range of information associated with vessel activity. To make matters worse, fishing vessels frequently change flag, ownership, registration, and fishing authorizations, enabling them to act with impunity if they choose.

The Global Record, which is being planned as an integrated global data base, offers a solution as it is intended to fill this information void. It will make available the essential information to enhance the effectiveness of regional and national monitoring, control and surveillance (MCS) tools and in particular, to support vessel inspection and surveillance programs, investigations, traceability initiatives and resource prioritization decisions, through the effective sharing of information—something that is not currently possible. The development of a GR would improve transparency and traceability of vessels, products, owners, operators, flags, authorisations and registration. It would facilitate risk assessment for industry, RFMOs and Governments and improve decision making including on fleet capacity, size and structure, management, safety, pollution, security and more.

The importance of the GR is underscored by new and growing market demands for ecolabels and other forms of product certification which require product traceability. Market forces and incentives could stimulate compliance by countries to provide information to the GR prior to any mandatory legal requirement being imposed.

The GR would support existing binding and non binding instruments to prevent, deter and eliminate IUU fishing and increase the effectiveness of port state measures and MCS activities.

This document seeks to define at a high level the requirements of the GR that will allow it to meet these goals.

## 1.4 Definitions and Acronyms

FAO	The Food and Agriculture Organisation of the United Nations
GR	Global Record
UVI	Unique Vessel Identifier
MCS	Monitoring Control and Surveillance
RFMO	Regional Fisheries Management Organisation
UNGA	United Nations General Assembly
FAO	Food and Agriculture Organisation of the UN
NGO	Non-governmental organisation
COFI	Committee on Fisheries
UN	United Nations
FishVIS	High Seas Fishing Vessel Information System
FINNZ	FishServe Innovations New Zealand Limited
HSTF	High Seas Task Force
MU	High Seas Fishing Vessel Information System Management Unit
TU	High Seas Fishing Vessel Information System Technical Unit
IUU	Illegal, Unregulated and Unreported Fishing Activity
IHS Fairplay	IHS Fairplay
CFR	Community Fleet Register
EMSA	European Maritime Safety Agency

## 2 HLR1: Vessels

### 2.1 Detailed Requirements

Requirement No.:	1.1.0 Capture Vessel Identification Data
Requirement:	<p>The system will enable the following vessel identification information to be captured:</p> <ul style="list-style-type: none"> <li>• Vessel <ul style="list-style-type: none"> <li>○ International Radio Call Sign (Varchar)</li> <li>○ MMSI Number (Varchar)</li> <li>○ Vessel National Registration Number (Int)</li> <li>○ Vessel Regional Registration Number (Int)</li> <li>○ GR UVI (Int)</li> <li>○ IMO Number (Int)</li> <li>○ Vessel Photograph(s)</li> </ul> </li> <li>• Standard Vessel Details <ul style="list-style-type: none"> <li>○ Bareboat/Demise Charter (Boolean)</li> <li>○ Previous Vessel Name(s) (Varchar)</li> <li>○ Where Built * (Varchar)</li> <li>○ Year Built (Int)</li> <li>○ Power of Main Engine(s) (Int)</li> <li>○ Ship Builder * (Varchar)</li> <li>○ Nationality of Ship Builder * (Varchar)</li> <li>○ Commercial Operator * (Varchar)</li> <li>○ Normal Crew Complement (Int)</li> <li>○ Fishing Method(s) * (Varchar)</li> <li>○ Ship Status * (Varchar)</li> </ul> </li> <li>• Vessel Flag Information <ul style="list-style-type: none"> <li>○ Flag State * (Char)</li> <li>○ Flag State Identification Number * (Varchar)</li> <li>○ Date Entered onto Flag State Register (Datetime)</li> <li>○ Date Ship De-registered (Datetime)</li> <li>○ Parallel Flag(s) * (Varchar)</li> <li>○ Previous Flag(s) * (Varchar)</li> </ul> </li> <li>• Visual Identification Details <ul style="list-style-type: none"> <li>○ Vessel Name (Varchar)</li> <li>○ Vessel Type * (Varchar)</li> <li>○ Length (Int)</li> <li>○ Moulded Depth (Int)</li> <li>○ Beam (Int)</li> <li>○ Gross Register Tonnage (Int)</li> <li>○ Gross Tonnage (Int)</li> <li>○ Net Tonnage (Int)</li> <li>○ Dead Weight (Int)</li> <li>○ Hull Colour * (Varchar)</li> <li>○ Superstructure Colour * (Varchar)</li> <li>○ Vessel Markings (Varchar)</li> </ul> </li> </ul>

<b>Requirement cont</b>	<ul style="list-style-type: none"> <li>• Vessel Communication Details <ul style="list-style-type: none"> <li>○ VMS Type(s) * (Varchar)</li> <li>○ Inmarsat Number(s) (Int)</li> <li>○ Satellite Communication ID (Varchar)</li> </ul> </li> <li>• Vessel Ownership Details <ul style="list-style-type: none"> <li>○ Registered Owner (Varchar)</li> <li>○ Port of Registry (Varchar)</li> <li>○ Parent Company Registered Owner (Varchar)</li> <li>○ IMO Registered Owner Identification Number (Int)</li> <li>○ Parallel-in Ships True Owner Details (Varchar)</li> <li>○ Parallel-out Ships True Owner Details (Varchar)</li> <li>○ Ship Manager's Name (Varchar)</li> <li>○ Technical Manager's Name (Varchar)</li> <li>○ Master's Name (Varchar)</li> <li>○ Master's Nationality (Varchar)</li> <li>○ Group Beneficial Owner (Varchar)</li> <li>○ Group Operated Fleet (Varchar)</li> <li>○ Registered Owner's Parent Company Name (Varchar)</li> <li>○ Date of Incorporation into Company (Datetime)</li> </ul> </li> <li>• Fish Storage Capacity Details <ul style="list-style-type: none"> <li>○ Freezer Type * (Varchar)</li> <li>○ No. of Freezers (Int)</li> <li>○ Total Freezer Capacity (Int)</li> <li>○ Fish Hold Capacity (Int)</li> </ul> </li> </ul>
<b>Rationale:</b>	Capturing vessel data is paramount to fulfilling the purpose of the GR which is to provide information that will improve the traceability of vessels and products as well as the transparency of vessel information and activities.
<b>Business Value:</b>	High
<b>Business Rules:</b>	<ul style="list-style-type: none"> <li>• One or more Fishing Method(s) may exist per vessel.</li> <li>• One or more Vessel Flag Information value sets may exist per vessel.</li> <li>• One or more Vessel Communication Details value sets may exist per vessel.</li> <li>• For each Flag State and Parallel Flag captured against a vessel, an accompanying Vessel National Registration Number may exist.</li> <li>• * Indicates fields' values may be derived from any associated FAO-classification standards, i.e. flags are stored according to the ISO 3 letter convention.</li> <li>• All * fields will be translated during the data upload process to ensure consistency e.g. all flags and countries will be changed to their ISO 3 letter country code-equivalents.</li> </ul>
<b>Related Req's:</b>	3.1.0, 1.2.0
<b>Assumptions:</b>	<ul style="list-style-type: none"> <li>• A vessel's Vessel National Registration Number value may be captured via an activity/authorisation file upload, see DR2 - Activity, 2.1.0 and 2.4.0 requirements for further details.</li> </ul>



<b>Revisions:</b>	<ul style="list-style-type: none"> <li>• Reference to tracking fishing activity movements removed.</li> <li>• Vessel Communication Type field removed and replaced with VMS Type field.</li> <li>• Reference to the creation of vessel records received without UVIs via activity and/or authorisation files removed.</li> <li>• Added business rule allowing for a one to zero/one relationship between Flag and Vessel National Registration Number fields.</li> </ul>
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<b>Requirement No.:</b>	<b>1.2.0 Update Vessel Identification Data</b>
<b>Requirement:</b>	<p>The vessel identification fields identified in requirement 1.1.0 Vessel identification information may be updated electronically by those methods identified in HLR4 Central Source.</p> <p>The GR must track these updates and the source of the update so a complete picture of a vessel at any point in time can be determined</p>
<b>Rationale:</b>	<p>Vessel identification details can potentially change over time and it is therefore necessary to be able to reflect such change within the GR.</p> <p>In order to deter IUU activity, it must be difficult for a vessel to simply change its name or other identifiable features to avoid detection. Having the complete view of a vessel over time will make this increasingly difficult.</p>
<b>Business Value:</b>	High
<b>Business Rules:</b>	<ul style="list-style-type: none"> <li>• Any subsequently-updated data will be stored in its previous state within audit tables, alongside: <ul style="list-style-type: none"> <li>○ User ID of the user responsible for uploading the import file</li> <li>○ The File ID of the import file</li> <li>○ Date 'From' and 'To' period between which the value was current</li> </ul> </li> <li>• Vessel identification data will only be updated where: <ul style="list-style-type: none"> <li>○ A matching record within the GR exists based on an existing vessel's GR UVI.</li> <li>○ A value within the updating record differs from the current value (including NULL records where a non-NULL value currently exists).</li> </ul> </li> </ul>
<b>Related Req's:</b>	1.1.0
<b>Assumptions:</b>	<ul style="list-style-type: none"> <li>• Retrospective data, i.e. historical values pre-dating the GR's go-live point, will be stored within the GR where it can be viably obtained from source.</li> <li>• Note: The use of the term 'update' does not mean that the data in the database is overwritten. Rather, a new row will be added with the changed data and the date the new row was added is considered the date this new data is valid from</li> </ul>
<b>Revisions:</b>	

<b>Requirement No.:</b>	<b>1.3.0 Generate Notification</b>
<b>Requirement:</b>	When either a new vessel is added to the GR, or an update is made to one that already exists, an automatic notification must be generated and sent to a designated recipient informing them of the action.
<b>Rationale:</b>	Such notifications will provide RFMOs with the most up-to-date vessel-related data and thus facilitate vessel identification over time.

<b>Business Value:</b>	3
<b>Business Rules:</b>	<ul style="list-style-type: none"> <li>• Notifications will be sent to an authorised GR user(s) whose Flag State is the same as that of the vessel being added or modified.</li> <li>• Update notifications will be sent to any authorised GR user(s) for the RFMO(s) which the vessel has a current authorisation from</li> <li>• If the notification is for a new vessel: <ul style="list-style-type: none"> <li>○ The subject will read “Global Record new vessel: &lt;Vessel Name&gt; + &lt;(GR)UVI Number&gt;”</li> <li>○ The body will list all fields captured within the GR upon submission.</li> </ul> </li> <li>• If the notification is for a change to an existing vessel within the GR: <ul style="list-style-type: none"> <li>○ The subject will read “Global Record modified vessel: &lt;Vessel Name&gt; + &lt;(GR)UVI Number&gt;”</li> <li>○ The body will list only those fields that have changed.</li> </ul> </li> <li>• All notifications will contain a standard footer containing the GR logo, contact information and disclaimer</li> </ul>
<b>Related Req's:</b>	1.1.0, 1.2.0
<b>Assumptions:</b>	<ul style="list-style-type: none"> <li>• Logo for the GR will be developed once the branding of the site has been confirmed</li> <li>• Authorised users will be able to edit their account's notification settings, enabling them to set such parameters as: <ul style="list-style-type: none"> <li>○ Off/On</li> <li>○ Notification Frequency</li> <li>○ Notification Conditions (e.g. only when flag-state member vessels are updated/added/both)</li> </ul> </li> </ul>
<b>Revisions:</b>	<ul style="list-style-type: none"> <li>• Assumption regarding authorised users' ability to change their notification settings clarified.</li> </ul>

<b>Requirement No.:</b>	<b>1.4.0 View Vessel Details</b>
<b>Requirement:</b>	<p>The system is to display a summary of information about the vessel:</p> <p><b>Vessel summary details:</b></p> <ul style="list-style-type: none"> <li>• Vessel Name</li> <li>• Flag</li> <li>• Call Sign</li> <li>• IMO Number</li> <li>• Flag state registration number</li> <li>• Vessel Type</li> </ul> <p><b>Owner/Operator details:</b></p> <ul style="list-style-type: none"> <li>• Operator name</li> <li>• Operator address</li> <li>• Owner name</li> <li>• Owner address</li> </ul> <p><b>Authorisations:</b> Grid with the following information: Issuing Organisation, Authorisation Type, Period, Status</p> <p><b>IUU Activity:</b> Grid with the following information: Reporting Organisation, Date, Description</p> <p><b>Activity Information:</b> Grid with the following information: Reporting Organisation, Type, Date</p> <p><b>Vessel Images:</b> Thumbnail of images</p>
<b>Rationale:</b>	This page will provide overview information relating to the vessel allowing a user to quickly understand the vessel and allow for the navigation to more detailed information
<b>Business Value:</b>	High

<b>Business Rules:</b>	<ul style="list-style-type: none"> <li>• When viewing the details, the current details are displayed (i.e. historical information is hidden)</li> <li>• When viewing the details, historical information is to be easily accessed (see 1.6.0).</li> <li>• When viewing the details, the date each value is valid from is to be displayed.</li> <li>• Where Operator Name is populated, the value will be a hypertext link to the summary page for the operator.</li> <li>• Only display fields for those vessel details which have a non-null value. The exception to this is Vessel Ownership Details, whose null values will display as 'Unknown'.</li> <li>• A link will be provided to an IHS Fairplay contact form allowing a user to query the validity of any particular vessel's details.</li> <li>• Vessel images are to be shown as thumbnails. If a user selects an image, the system is to expand the image.</li> <li>• From this page the user may link to: <ul style="list-style-type: none"> <li>○ Vessel Authorisation Details</li> <li>○ Owner/Operator Details</li> <li>○ Vessel Activity Details</li> <li>○ Extended Vessel Details</li> <li>○ Report IUU Form</li> </ul> </li> </ul>
<b>Related Req's:</b>	1.1.1
<b>Assumptions:</b>	
<b>Revisions:</b>	

<b>Requirement No.:</b>	<b>1.5.0 View Vessel History</b>
<b>Requirement:</b>	An authorised user must be able to view the history of all the vessel identification fields within requirement 1.1.1.
<b>Rationale:</b>	The transient nature of many of the fields used to identify a vessel warrants the need to be able to view their history.
<b>Business Value:</b>	High
<b>Business Rules:</b>	<ul style="list-style-type: none"> <li>The history should be accessible from the same place as the current information.</li> <li>When data is available for Owner/Operator, the name will be a hypertext link to the summary page for the operator.</li> <li>The historical information will display the date next to the value indicating when the value was changed, indicate the source of the data and provide a function to view this history within the same page. E.g.</li> </ul> <p>Vessel Name: Sharons Gift (since 20 May 2006 - IHS Fairplay) <a href="#">History</a>  Call sign: ZMX (since 12 Feb 2010 - IHS Fairplay)</p> <ul style="list-style-type: none"> <li>The function to view historical data is only provided if historical data exists for this value.</li> <li>Clicking on the History will expand/contract the field displaying or hiding the information directly under the current information.</li> </ul>
<b>Related Req's:</b>	1.2.0, 1.7.0
<b>Assumptions:</b>	
<b>Revisions:</b>	

<b>Requirement No.:</b>	<b>1.6.0 Extend Vessel Details</b>
<b>Requirement:</b>	The system is to provide an area to view all other vessel information recorded for a vessel and provide links to any history of this information as per requirement 1.6.0.
<b>Rationale:</b>	The remaining data is to be available for viewing as is the history of this information to provide a detailed understanding of the vessel and its past.
<b>Business Value:</b>	2
<b>Business Rules:</b>	<ul style="list-style-type: none"> <li>• The Vessel summary details and Owner/Operator details are to be shown at the top of the page, with the remaining information as defined in requirement 1.1.1 displayed underneath.</li> <li>• Where Operator Name is populated, the value will be a hypertext link to the summary page for the operator.</li> <li>• Only display fields for those vessel details which have a non-null value. The exception to this is Vessel Ownership Details, whose null values will display as 'Unknown'.</li> <li>• A link will be provided to an IHS Fairplay contact form allowing a user to query the validity of a particular vessel's detail.</li> <li>• The user can navigate back to the summary page from this page.</li> </ul>
<b>Related Req's:</b>	1.1.0, 1.5.0, 1.7.0
<b>Assumptions:</b>	
<b>Revisions:</b>	