

Global Positioning System (GPS)

GPS is a three-part system involving satellites, ground stations, and receivers. Satellites act like stars as we know where they are at any given time. The ground stations monitor and control the satellites and the receiver listens for signals from the satellites and help determine their locations.

When the receiver calculates its distance from four or more satellites, your location can be pin-pointed to within a few metres from thousands of miles away. The receivers on the INFOMAR survey boats can calculate position to a few centimetres allowing us to position objects, shipwrecks and dangerous shoals accurately on the nautical charts.

High accuracy GPS systems are required to precisely position hydrographic and geophysical data in order to comply with the International Hydrographic Organization (IHO) Standards for Hydrographic Surveys ([Special Publication n. 44](#)).

More information on GPS is available [here](#).

GPS specification installed on each INFOMAR vessel.

Vessel	GPS systems	Years in service
RV Celtic Explorer	Fugro Starfix 3100LRS DGPS	2003-2011 (primary)
	Seatex Seapath 200 DGPS	2003-2011 (backup)
	C-Nav 3050 DGPS	2011 - present (primary)
	Seatex Seapath 330+ DGPS	2011 - present (primary)
RV Celtic Voyager	Fugro Starfix 3100LRS DGPS	2003-2011 (primary)
	Seatex Seapath 200 DGPS	2003-2011 (backup)
	C-Nav 3050 DGPS	2011 - present (primary)
	Seatex Seapath 330+ DGPS	2011 - present (primary)
RV Keary	Applanix POS-MV with DGPS corrections	2009 - present
MV Cosantóir Bradán	Applanix POS-MV with DGPS corrections	2012-2014
RV Geo	Applanix POS-MV with DGPS corrections	2009 - present
RV Tonn	Applanix POS-MV with DGPS corrections	2015-present
RV Lirr	Applanix POS-MV with DGPS corrections	2017-present
RV Mallet	Applanix POS-MV with DGPS corrections	2017-present