



**Fisheries New Zealand**

Tini a Tangaroa

# **Fisheries (Geospatial Position Reporting Devices) Circular (No.2) 2018**

## Issuing Authority

This circular is issued pursuant to regulation 6 of the Fisheries (Geospatial Position Reporting) Regulations 2017.

Dated at Wellington this 14 day of December 2018.

Original signed

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## Introduction

*This introduction is not part of the circular itself, but provides the background and broad purpose of the circular.*

The Fisheries (Geospatial Position Reporting) Regulations 2017 require operators and masters of vessels to use a Geospatial Position Reporting (GPR) device to provide information to the Ministry for Primary Industries about their position while fishing. Existing Vessel Monitoring Systems (VMS) will automatically be re-registered as GPR systems, and no action is required by permit holders with existing VMS systems in order to comply with the Regulations.

The key requirement of this circular is that position reports must be transmitted to MPI in near real time during all commercial fishing.

This circular sets out the specific technical details relating to geospatial position reporting devices, including the minimum legal requirements for the devices and systems used to provide position reports and the content of position reports.

This circular comes into force on 10 January 2019. It replaces and revokes the Fisheries (Geospatial Position Reporting Devices) Circular 2018, which came into force on 10 May 2018.

<b>Contents</b>	<b>Page</b>
1 Title	4
2 Commencement	4
3 Purpose	4
4 Application	4
5 Definitions	4
<b>Part 1: Basic requirements</b>	<b>5</b>
6 Operation of GPR devices	5
7 Content of position reports	5
8 When a vessel is deemed to be used for fishing or transportation	6
9 When a fisher fishing without a vessel is deemed to be carrying and operating GPR device	6
<b>Part 2: Transmission</b>	<b>7</b>
10 Transmission frequency either moderated or fixed	7
11 Transmission capability	7
12 Transmission failure	7
13 Security of transmission	7
<b>Part 3: Registration of devices</b>	<b>8</b>
14 Application for registration	8
<b>Part 4: Technical characteristics of GPR devices</b>	<b>8</b>
15 Power on, Power off, and malfunction messages	8
16 Serial number of devices	9
<b>Part 5: Miscellaneous</b>	<b>9</b>
17 Revocation	9

## 1 Title

- (1) This circular is the Fisheries (Geospatial Position Reporting Devices) Circular (No.2) 2018.

## 2 Commencement

- (1) This circular comes into force on 10 January 2019.
- (2) Where a person using a vessel has commenced, but not completed a fishing trip when this circular comes into force, there is no need to comply with this circular until the commencement of the next fishing trip.

## 3 Purpose

- (1) The purpose of this circular is to specify the standards and requirements applying—
  - a) to geospatial position reporting devices (GPR devices) required to be carried on fishing vessels and by commercial fishers fishing without a vessel; and
  - b) to the transmission of position reports from GPR devices to MPI.

## 4 Application

- (1) This circular applies only to GPR devices carried and operated under the Fisheries (Geospatial Position Reporting) Regulations 2017 (unless an applicable exemption, issued under regulation 11 of those regulations applies).

## 5 Definitions

- (1) In this circular:

**Act** means the Fisheries Act 1996.

**AIS device** means a GPR device that—

- a) uses the Automatic Identification System; and
- b) uses, as its principal communication provider, a communication provider that has an all-of-government contract with MPI (which, at the date this circular is issued, is Kordia Limited)

**ASDO** means the approved service delivery organisation (under Part 15A of the Act), (which, at the date this circular is issued, is Commercial Fisheries Services Ltd, trading as FishServe.).

**automatically** means without human intervention.

**communication provider** means any person who receives and onsenes position reports transmitted from a GPR device that are intended to be provided to MPI.

**fishing activity** means activity that would require a fish catch report under the Fisheries (Reporting) Regulations 2017 to be completed, and includes setting activity for fishing methods where haul details only are required.

**fishing vessel** means any of the following (as referred to in regulation 5(1) of the Regulations):

- a) a New Zealand fishing vessel;
- b) a foreign licensed fishing vessel;
- c) a registered fish carrier;
- d) any other kind of vessel used for commercial fishing, except tenders deployed from any vessel using any purse seine net.

**GPR device** means a geospatial position reporting device (including any associated components) that—

- a) is used for the purposes of the Regulations; and
- b) creates position reports and transmits them to MPI via a principal communication provider; and
- c) is registered by the ASDO as required by regulation 7 of the Regulations.

**MPI** means the Ministry for Primary Industries.

**principal communication provider**, in relation to a GPR device, means the communication provider who, under a contract with MPI or Fisheries New Zealand, is responsible for transmitting position reports sent by the device to MPI (whether or not the report goes via other communication providers before getting to the principal communication provider).

**Regulations** means the Fisheries (Geospatial Position Reporting) Regulations 2017.

**SDA** means the service delivery agency that provides operational support to the commercial fishing industry under contract to MPI and that receives event reports from permit holders for further transmission to MPI following validation. (At the date this circular is issued, the SDA is Commercial Fisheries Services Ltd, trading as FishServe.).

- (2) Any term that is defined in the Act or Regulations and used but not defined in this circular has the meaning set out in the Act or Regulations. (A key term defined in the Act includes **fishing**. Key terms defined in the Regulations include **commercial fisher** and **fishing trip** or **trip**).

## Part 1: Basic requirements

### 6 Operation of GPR devices

- (1) Every operating GPR device must automatically create position reports—
  - a) that comply with clause 7; and
  - b) are transmitted to MPI at the intervals required by clause 10.
- (2) A GPR device must be turned on when it is required to be operating, which means that—
  - a) for commercial fishers using a fishing vessel, the GPR must be turned on to comply with clause 8; and
  - b) for commercial fishers fishing without a vessel, the GPR device must be turned on to comply with clause 9.

### 7 Content of position reports

- (1) Every position report must contain the following information, in the order shown:

Parameter	Form of information
Unique ID	A unique identifier such as an MMSI (Maritime Mobile Service Identity) number that is derived from an IMN (Intelligent Mobile Network) or from an IMEI (International Mobile Equipment Identity)
Date/time/position	In UTC using 24-hour clock (i.e. YYYYMMDDHHMMSS) (e.g. 20170320125643)
Latitude of position	Decimal latitude WGS84 to 4 decimal places (e.g. -36.3456)
Longitude of position	Decimal longitude WGS84 to 4 decimal places (e.g. 174.4567)
Speed over ground	Knots, to at least 1 decimal place (e.g. 10.1)

Parameter	Form of information
Heading, or course over ground	Degrees (e.g. 0-359) true north
Rate of turn	Degrees per minute (AIS only)
Type of report	<p>Must show which of the following type of report it is:</p> <p>Normal (NOR – standard reports transmitted during fishing)</p> <p>Power up (PUP – a report created when the GPR device is powered up after being turned off)</p> <p>Power off (POF – a report created immediately before a GPR device loses power after being turned off)</p> <p>Power up after unexpected power off (UPO – a report created when the GPR device is powered up after it lost power before sending a POF report)</p> <p>First position (FIR – the first report transmitted by a GPR device)</p> <p>Port mode (PRT – a report transmitted at a reduced rate of 1 report per day when the GPR device is not required to be operating)</p>

- (2) Position data in position reports must be accurate to within 15 m RMS (root mean squared), such that 98% of the positions are within this range.

## 8 When a master of a vessel is required to carry and operate a GPR device

- (1) A master of a vessel must ensure that the GPR device is carried and operating in the following situations:
- after the vessel's engine has been turned on, and the vessel is leaving a mooring or berth place that has access by way of a formed road;
  - after the vessel's engine has been turned on, and has left a trailer or has been deployed into the water by other means;
  - if the vessel does not have an engine, after it has been launched or entered into the water or is leaving a mooring or berth place that has access by way of a formed road;
  - if the vessel is a tender, after it has left or been untethered from a mothership, unless it is a vessel referred to in section 5(1)(d) of the Fisheries (Geospatial position reporting) Regulations 2017.

## 9 When a fisher fishing without a vessel is required to be carrying and operating a GPR device

- (1) A commercial fisher who is fishing without a vessel (and who is therefore required to carry an operating GPR device during an entire fishing trip) is required to be carrying an operating GPR device between:
- when the fisher has reached the fishing location or is leaving the vehicle used to reach the fishing location; and
  - all fishing activity for the trip has been completed and the fisher has returned to a vehicle or other base.
- (2) Despite subclause (1), where the commercial fisher is undertaking a diving fishing trip that does not take place from a vessel the commercial fisher may leave an operating GPR device (whether in a vehicle or otherwise) at or near the point where the diver enters the water.

## Part 2: Transmission

### 10 Transmission frequency either moderated or fixed

- (1) Every GPR device must be set up to transmit position reports to MPI at—
  - a) a moderated frequency; or
  - b) a fixed frequency set by MPI for that device in relation to the relevant principal communication provider.
- (2) Once a GPR device is set up to operate at either a moderated frequency or a fixed frequency, the frequency cannot be changed except as required by MPI.
- (3) For a GPR device transmitting at a moderated frequency—
  - a) the frequency must be able to be set and changed only by MPI; and
  - b) the device must be capable of achieving a reporting frequency of anything between 10 minutes and 24 hours; and
  - c) no-one (other than MPI) must be able to detect when MPI changes the frequency, or what the frequency is at any time.
- (4) The frequency of a GPR device (other than an AIS device) transmitting at a fixed frequency is:
  - a) set at a reporting frequency of 10 minutes, unless or until MPI requires an alternative reporting frequency of anything between 10 minutes and 24 hours; and
  - b) set when the device is first turned on and remains the frequency of transmission unless or until MPI requires it to be changed.
- (5) Every AIS device must transmit at the fixed frequency of one position report every 3 minutes.

### 11 Transmission capability

- (1) The system used to transmit position reports to MPI must be capable of transmitting reports from any place that the commercial fisher is fishing.
- (2) The transmission system must—
  - a) transmit position reports to MPI only via a principal communication provider; and
  - b) if position reports are sent to a principal communication provider via other communication providers, transmit reports immediately from one communication provider to another; and
  - c) transmit position reports immediately from the principal communication provider to MPI.

### 12 Transmission failure

- (1) If a lack of service means that a position report cannot be transmitted when it is due, the GPR device —
  - a) must be capable of holding that report, and any later reports, until the service is resumed, for at least 24 hours after the first report failed to transmit; and
  - b) must transmit all reports held by it that have not been sent during the lack of service.
- (2) The requirement in subclause (1) does not apply to an AIS device.
- (3) An AIS device must not be used as a GPR device in locations where lack of service means less than one position report is transmitted in an hour.

### 13 Security of transmission

- (1) Every GPR device must use a means of transmitting position reports that—
  - a) maintains the confidentiality of the data; and

- b) maintains the integrity of the data; and
  - c) does not allow the data to be intentionally or unintentionally intercepted by third parties.
- (2) However, subclause (1)(a) does not apply if there is an agreement between the principal communication provider of a device and MPI that data sent from the device may be shared with 1 or more third parties or classes of third party.
- (3) Subclauses (1)(a) and (c) do not apply to an AIS device.

## **Part 3: Registration of devices**

### **14 Application for registration**

- (1) Every application to register a GPR device with the chief executive must be done by making an application to the ASDO.
- (2) The application must include the following:
- a) the serial number shown on the casing of the device;
  - b) the product name;
  - c) the model ID;
  - d) the name of the manufacturer of the device;
  - e) the principal communication provider used with the device;
  - f) the transmission medium used for the device;
  - g) the software version number;
  - h) a unique identification of the device in a form specified by the ASDO.
- (3) A GPR device must only be registered to operate on a single vessel if that vessel is greater than or equal to 6 metres in length.
- (4) A GPR device may be registered to operate on more than one vessel, as well as when fishing without a vessel, if all applicable vessels are less than 6 metres in length.
- (5) A vessel must not have any more than one GPR device registered to operate on it at any one time.

## **Part 4: Technical characteristics of GPR devices**

### **15 Power on, Power off, and malfunction messages**

- (1) When a GPR device is turned on, the device must automatically send a "Power up" (PUP) type position report to MPI.
- (2) If a GPR device is turned off, before it loses power it must send "Power off" (POF) type position report to MPI.
- (3) If a GPR device turns off before a "Power off" message is sent to MPI as required by subclause (2), when the device is next turned on the device must automatically send a "Power up after unexpected power off" (UPO) type position report to MPI.
- (4) The requirements in subclauses (1) to (3) do not apply to an AIS device.
- (5) If a GPR device is not creating or transmitting position reports as it should be, the device must alert someone on board to the malfunction.



## **16 Serial number of devices**

- (1) The serial number of a GPR device must be on its outside casing in a form that means that it cannot easily be changed by anyone other than the manufacturer.

## **Part 5: Miscellaneous**

### **17 Revocation**

- (1) The Fisheries (Geospatial Position Reporting Devices) Circular 2018 (issued on 10 May 2018) is revoked.