High Resolution Data Requests (HRDR) are the commands that are issued by the operators at Fisheries Monitoring Centres which allow them to see higher number of vessel positioning samples over a given time period. It allows them to more precisely understand the movements of a vessel on the sea which can allow them to:

- Impose penalties for illegal activities

- Better monitor their fisheries with more data
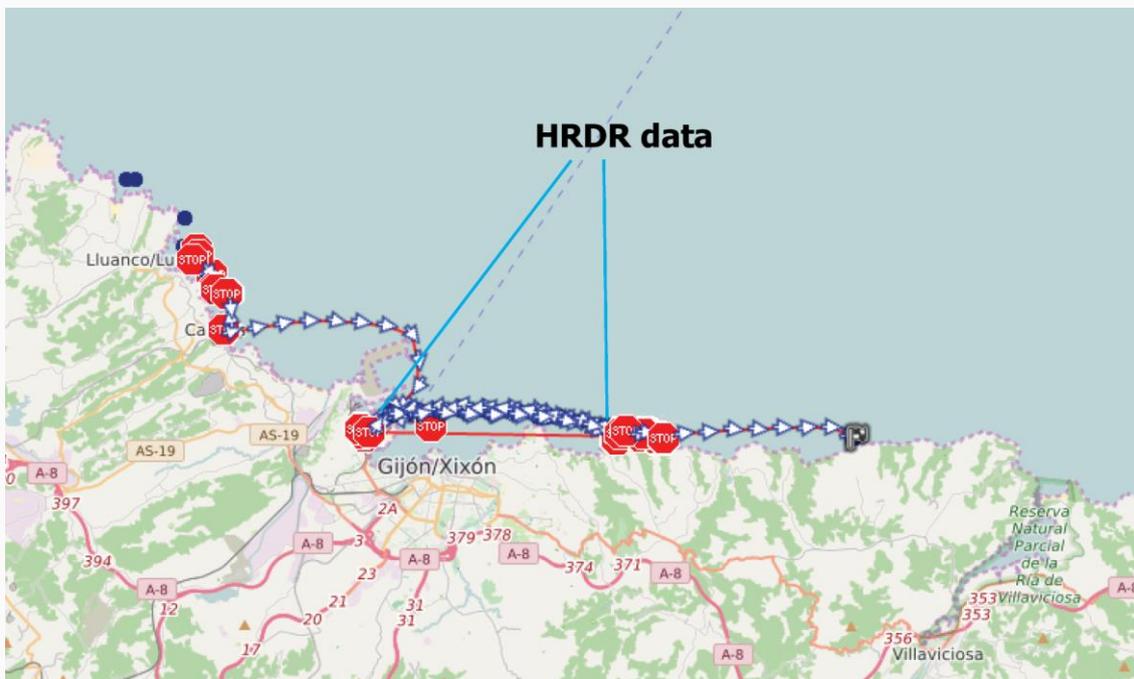
What we've noticed is that some operators split the requests into 2 different categories and that allows them to manage their airtime costs more effectively through using the hybrid function of the BlueTraker.

Again is probably worth showing this pictorially so here we go:

Critical HRDR

For instances when a vessel is out on the high seas and the FMC requires a HRDR to understand vessels movements (e.g. potential transshipment or vessel steaming through another vessels net) and an immediate transmission is required then data will be transmitted through the satellite channel.
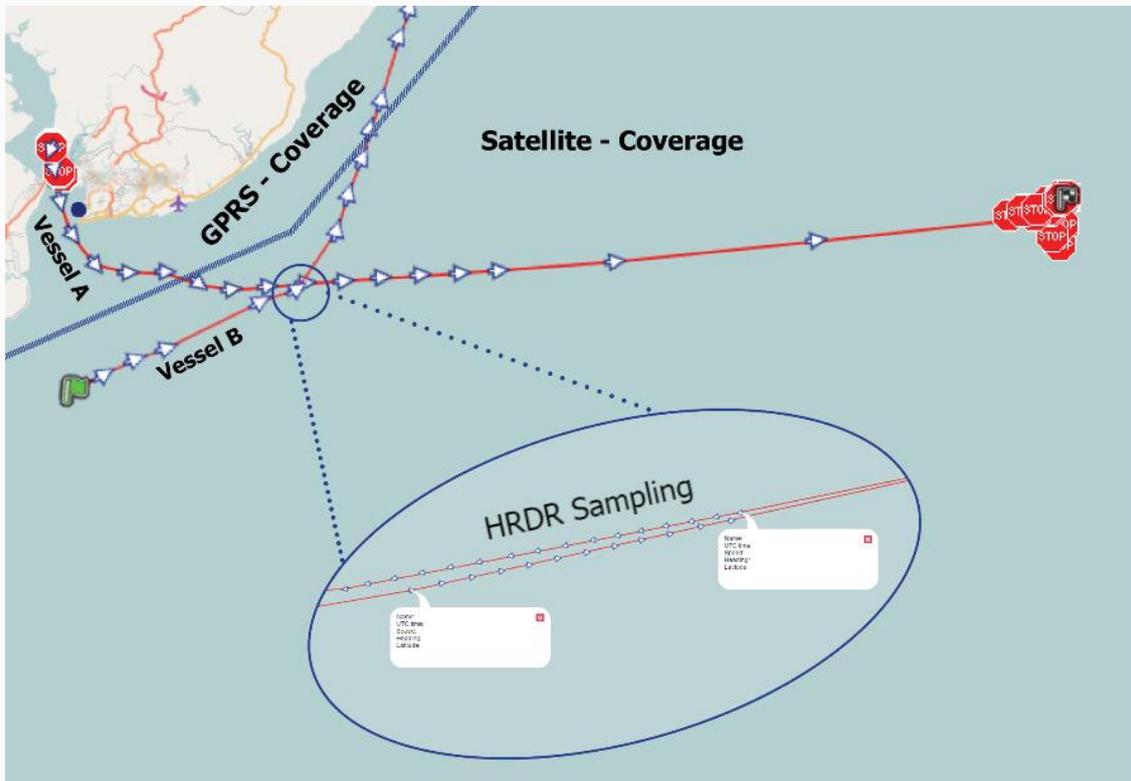

Figure 1: Suspicious behaviour inspection

In Figure 1, **Vessel A** is on the high seas (i.e. out of reach of GPRS coverage and using satellite communication) and passes suspiciously close to **Vessel B**. The FMC suspects that transshipment has taken place, so a HRDR command is issued over the satellite channel; data is immediately transmitted through the satellite network allowing the FMC to make a decision upon any further action required (e.g. penalties for the vessels).

Non-Critical HRDR

HRDR commands issued over the GPRS channel means that the device will only report data back when in GPRS coverage. If the vessel is out of range of GPRS coverage when the command is sent, then the FMC data server will store the

command (for a period of 48 hours) and wait until a GPRS signal is restored. The device will only receive the command and send the data, when a strong enough GPRS channel becomes available.
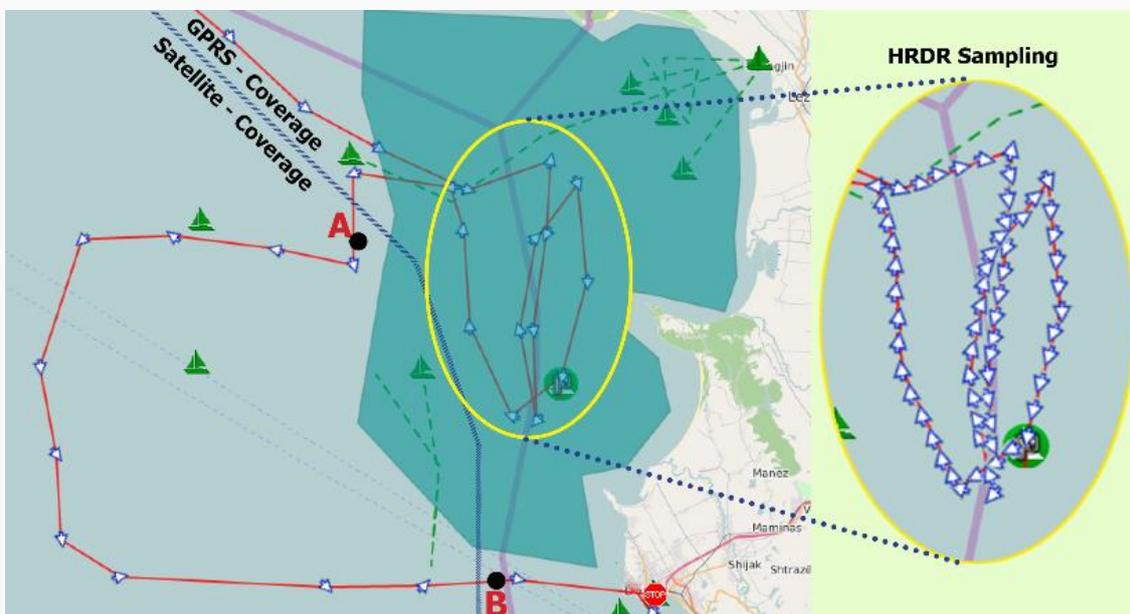

Figure 2: Non-Critical HRDR data with denser HRDR sampling request presentation on left

In Figure 2, we can see a vessel has entered a geozone (that is within GPRS coverage) that the FMC is watching (but does not have a short sampling period). The FMC notices a pattern (circled in yellow) and wants to investigate further. In this instance the FMC issues a HRDR request (Point A) over the GPRS network but as the vessel was out of GPRS coverage the command is stored and only sent when the vessel in back in the range of the GPRS network (Point B). This function enables an FMC to keep a handle on costs while still receiving denser HRDR sampling data.

If you feel that this topic might be something worth investigating for yourself or your clients and would like further information then please get in contact with us: sales@bluetraker.com or if you want to learn about any of the other features of BlueTraker vms or any other BlueTraker products, then please drop us a line or give us a call on **00386 3428 4800**.