

# HOW TO MAXIMISE YOUR AIS RECEPTION AND RANGE



## EXTERNAL FACTORS

Many external factors can affect your AIS range, reception and the completeness of the messages you receive.

- The strength of the AIS transmission has a large bearing on the range at which it can be received.
- Lengthy and complex AIS messages will take longer to receive.
- Your AIS reception will fluctuate depending on weather conditions, high humidity for example, strongly decreases AIS range.

That being said, there are many things you can do to maximise your AIS reception...

## ANTENNAS

- Place your antenna as high as possible
- Use a quality antenna, with a max 3dB gain
- If possible, use a dedicated AIS aerial, not shared with a radio antenna
- **Omni-directional antennas** often pick up more local boats. **Directional antennas** often achieve a further range, but could miss some nearer boats.

- **DON'T** place antennas too close together (i.e. less than 4 metres of each other)

## ANTENNA CABLE

- Use a Coaxial cable
- Chose a quality cable (ideally RG 213)
- Keep the cable as short as possible

- **DON'T** use a cable any longer than you need to. You can lose 0.1dB per metre of cable.
- **AVOID** using a cheap non-coaxial cable

## AIS RECEIVER

- Use a dual channel AIS receiver.
- Use the correct power supply for your AIS receiver.
- Locate your AIS receiver close to the antenna. You can shorten the cable and extend with WiFi.

- **AVOID** single channel AIS receivers if the speed and completeness of data is important to you.

## AIS CABLE ADAPTOR

- Use a cable with the correct connector for your AIS receiver
- **AVOID** using a cable adapter. An adapter can lose you up to 1dB.

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