

**SUBMISSION TO THE**  
**NUNAVUT WILDLIFE MANAGEMENT BOARD**  
**FOR**

**Information:**

**Decision: X**

**Issue:** Vessel Monitoring System transponders in Nunavut Settlement Area

**Background:**

Cumberland Sound is located entirely within the Nunavut Settlement Area (NSA) marine waters, adjacent to the community of Pangnirtung. Within the Cumberland Sound, the NWMB has approved a separate stock management area, the Cumberland Sound Turbot Management Area (CSTMA). The CSTMA is located at the end of the Sound, where a winter fishery has been prosecuted using longlines since 1986. An open-water longline fishery commenced in summer 2009, and open-water fishing also took place in 2010.

The outer portion of Cumberland Sound falls within the NAFO 0B management zone. In the past, vessels fishing in NAFO 0B have fished in the offshore areas, that is, out in the Davis Strait. In 2009 however, Pangnirtung Fisheries Limited (PFL) and the Government of Nunavut expressed interest in conducting a test fishery within the outer portion of Cumberland Sound in NAFO 0B. In 2009 and 2010, PFL fished within the outer portion of Cumberland Sound in NAFO 0B.

It is a licence condition that vessels have a DFO-approved Vessel Monitoring System (VMS) transponder installed on the vessel with unobstructed signal transmission at all times. A VMS transponder is about the size of a small radio with an antenna. It uploads the location of the vessel to satellites, and this information can be monitored by DFO Fishery Officers. The licence conditions state that if the VMS becomes inoperative then the vessel has to stop fishing.

Vessels fishing in Cumberland Sound in 2010, both within the CSTMA and the outer portion of the Sound within the NAFO 0B management zone, experienced problems with their Vessel Monitoring System (VMS) transponders. DFO Fishery Officers have investigated what happened, and found that some of the VMS transponders do not work very well when vessels are north of 50-60° N. This is because they use satellites that are located at the equator, and thus do not have good coverage in the north. However, there are VMS transponders – those that operate on the Iridium satellite system – that provide good coverage in the north.

A second issue is that when vessels are fishing further south and VMS transponders break down, the vessels are ordered into port to have them fixed. In the north, vessels are fishing farther from land, and it may take days for a vessel to steam to port. The duration of the fishing season is already limited in the north, because of the environment, and lost fishing days are a serious concern.

**Recommendations:**

DFO does not want vessels to have to stop fishing because VMS transponders are not transmitting. Therefore, DFO recommends:

- 1) That the NWMB establish a non-quota limitation (NQL) requiring that vessels planning to operate within NSA waters be outfitted with a VMS transponder that has greatest coverage in the north (that is, one that operates on the Iridium system); and
- 2) That the NWMB establish a NQL requiring that vessels planning to operate within NSA waters carry two VMS transponders in case of one breaking down. VMS transponders cost in the range of \$500-1000, and purchasing an extra one would be much less expensive than expending fuel to steam into port to fix one.

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