

VOS and VOSClm Report for 2009

Canada

a. Programme description:		
Category	No. of ships at 31 Dec 2009	Comments
<i>Selected</i>	31	
<i>Supplementary</i>	21	
<i>Auxiliary</i>	0	
<i>Other (specify)</i>	0	
Total National VOS Fleet	52	

b. VOS:	
<i>Number of VOS vessels recruited in 2009</i>	3
<i>Number of VOS vessels de-recruited in 2009</i>	1
<i>Target number of ships in the national VOS Fleet</i>	75 Automatic VOS (AVOS) Ships

c. VOSClm:	
<i>Number of VOSClm vessels at 31 December 2009</i>	50
<i>Number of VOSClm vessels recruited in 2009</i>	05
<i>Number of VOSClm de-recruitments in 2009</i>	01
<i>Number of VOSClm recruitments planned for 2010</i>	We intend to install 8-10 new AVOS this year
<i>Target number of ships to participate in VOSClm</i>	75 (The complete AVOS Network)

d. Automated observing systems:				
Type	No. of ships at 31 Dec 2009	Manual Input Yes / No	Method of Comms	2010 Planned installations
AVOS manufactured by AXYS Technologies	35	Both	INMARSAT - C	0
AVOS manufactured by AXYS Technologies	17	Both	IRIDIUM	20 retrofits (of existing INMARSAT) and 8-10 new AVOS installations with Iridium

e. Data management:	
<i>Total number of ship observations (BBXX) distributed on the GTS in 2009</i>	Total 93771 Auto 92312/Manual 1459
<i>Frequency of VOS data submitted to the GCC in 2009</i>	

f. Electronic logbooks:		
Software & version	No. of ships at 31 Dec 2009	Implementation/upgrade plans
1.23.14 Bridge PC 1.15	01	
1.23.14 Bridge PC 1.16	24	
1.23.14 Bridge PC 1.19	01	
1.23.14 Bridge PC 1.20	01	
1.23.14 Bridge PC 1.21	01	
1.23.14 Bridge PC 1.22	01	
1.23.15 Bridge PC 1.16	01	
1.23.15 Bridge PC 1.17	05	

1.23.15 Bridge PC 1.19	04	
1.23.15 Bridge PC 1.21	05	
1.23.16 Bridge PC 1.18	01	
1.23.16 Bridge PC 1.21	07	
All new installs and retrofits will be version 1.23.16		

g. Major challenges and difficulties:

- Data collection rate is low in the high northern latitudes and Arctic with INMARSAT
- Accurate SST measurement remains an issue due to mounting location of sensor and technique
- Strategy required to increase the number and frequency of manual observations from AVOS ships
- Continue to deal with AVOS vessel operator concerns related to call sign masking.

h. Research / development / testing:

- The MSC is presently implementing Iridium telemetry on the operational AVOS Network. 17 ships have been retrofitted to date. Currently plans will see the entire network of 60+ ships using Iridium telemetry within 2 years. The use of Iridium has proven to be very reliable, with excellent performance in Arctic waters. Due to significant costs savings, we are also able to receive data on an hourly basis from all Iridium vessels.
- Investigation of alternate means to automatically obtain SST is underway, given the challenges of the current system that relies on either engine intake or hull-contact sensors.
- In 2010 the MSC will begin to receive observations from VOS "Auxiliary" vessels who will utilize the TurboWin electronic logbook to create FM13 messages for delivery via email. Note: These VOS "Auxiliary" vessels will not utilize standardized meteorological sensors, and there will be no on-going calibration or maintenance planned.

i. Other comments:

- Data from AVOS ships with IRIDIUM communication are available on the GTS under the header "SI/SN/SM VD02 CWAO"
- Data from VOS auxiliary ships will be available on the GTS under the header "SI/SN/SM VD03 CWAO"

