

ELECTRONIC MONITORING OF NORWEGIAN MINKE WHALING

Submitted by Norway

Background

Successfully managed harvesting of resources must ensure that harvesting practices fit within long term resource sustainability goals. The methods for management surveillance for activities at sea have traditionally been at-sea inspector and observer programs, logbooks and data collection by scientists and trained observers.

Traditional methods for monitoring the Norwegian harvest of minke whales, have included all these elements. The monitoring program using inspectors on every vessel became gradually extremely costly. To keep the costs down, free inspection time became limited (6 weeks per boat). An electronic tamper-proof automated computing system to independently monitor the whaling activities would ease some of the unintended restrictions caused by the extensive monitoring programme that was put into force in 1993.

A programme to develop an electronic monitoring system, a trip recorder named Blue Box system, started with governmental funding in 2001 at Norwegian School of Veterinary Science. The Blue Box system consist of a control and data logger box (Blue Box) designed to independently monitor and log hunting activity data provided by an independent GPS and different sensors placed in designated areas and structures of the boat. The data prove date, time and position of whales shot and taken onboard. The control box and the sensors are configured and calibrated individually for each vessel before each hunting season. The system is automated with programs designed for the continuous operation and logging of data for at least 4 months and equipped with backup batteries and automatically restarting functions following system interruption. In addition to the automated monitoring the whaling vessels may still also have to accommodate and receive inspectors on board from time to time, which is in line with the other fish float.

When the hunting season is closed, the encrypted data is collected from the Blue Box, decrypted and analyzed by authorized personnel in the Directorate of Fisheries.

Assessment

As of 1 January 2006 all whale hunting vessels have been obliged to install the authorised trip recorder, the Blue Box, onboard and the Directorate of Fisheries has been responsible for the practical implementation of the system. The Norwegian authorities are very satisfied that the results show that the trip recorder functions according to the intentions set at the commencement of the programme.

The trip recorder has registered all relevant activities for the purpose of control. Difficulties and deficiencies encountered during the developmental stage of the programme have been resolved, and the results show that the implementation of the trip recorder in the whaling operations have revealed no deficiencies of importance with respect to the function and data sampling capacity of the trip recorder. The system is not man-based i.e. it functions without human interference and it works 24 hours a day seven days a week.

It is given that some sensors may need to be changed from year to year according to conditions on each vessel, and the frequencies with which these changes have taken place have been as anticipated.

The whaling industry has not raised any objections to the Blue Box system either. On the contrary, the trip recorder is usually welcomed as the whaling can be operated in a far more flexible manner with respect to the hunting periods than when it was dependent on the availability of inspectors.

Norwegian authorities will therefore continue to use the independent electronic monitoring system, the Blue Box system, also in the future. In addition infrequent and ad hoc controls will be undertaken by inspectors.



Fig. 1. The Blue Box (Control Box) of the Automated Electronic Monitoring System developed for monitoring the minke whale hunting in Norway.