

INTERNATIONAL DOLPHIN CONSERVATION PROGRAM

INTERNATIONAL REVIEW PANEL

39TH MEETING

LANZAROTE (SPAIN)

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**MODIFICATION OF PROCEDURES FOR MEASURING THE
PERFORMANCE OF VESSELS AND CAPTAINS**

At its 28th meeting in October 2001, the IRP approved the system for measuring performance in reducing dolphin mortality (Appendix A). The system is used in measuring the performance of vessels and captains, as required by sections I(10) and III(3) of Annex IV of the Agreement and section 6 of the [*Procedures for maintaining the List of Qualified Captains*](#). The standardized measure takes account of differences in dolphin mortality rates between species and areas. Thus, using this method, mortality rates of vessels and captains that fish in different areas and on different species can be fairly compared.

Recent analyses of the IATTC observer data have identified data quality issues that may lead to the inappropriate rewarding of performance unless the data are screened prior to computing the standardized performance measure. Use of questionable data could unfairly affect the performance scores, inappropriately rewarding low mortality rates that reflect such data rather than better performance.

To avoid this possibility, the Secretariat proposes modifying the method for computing performance by first screening the data used to compute the standardized performance measure to identify potential questionable data.

The screening of the data involves three parts: 1) an analysis of dolphin mortality data, 2) an analysis of purse-seine set types, and 3) an analysis of tuna catches. In each analysis, a computer algorithm will be developed on a portion of the IATTC data base. These algorithms will be used to identify sets with anomalous characteristics (mortality, set type, tuna catch) in the remaining data. Data of any observers with statistically large proportions of anomalous observations will be excluded prior to computing the standardized performance measure. This screening of data would be conducted annually.

The Secretariat recommends that this change in the procedure for calculating performance in reducing dolphin mortality be approved.

Appendix A

Calculation of standardized mortality per set (SMPS)

It is anticipated that this measure will be computed annually; data availability is likely to preclude assessment of performance over shorter time intervals. Data for the performance measure will be limited to vessels making at least 10 dolphin sets in a year to ensure a minimum sample size. Sets involving major malfunctions are excluded from the comparison.

Data are assigned to one of six cells (2 species groupings x 3 areas) based on the following criteria:

1. Sets are classified into 'sets on common dolphins' and 'sets on other dolphins.' A set on common dolphins is defined as a set in which (a) there was mortality and more than 50% of the dolphins killed were common dolphins, or (b) there was no mortality, but dolphins were captured and more than 50% of the dolphins captured were common dolphins.
2. Sets are assigned to one of three areas: (1) north of 5°N between 86°-117°W; (2) between 6°-14°N and 123°-150°W; and (3) all other parts of the Agreement Area.

Within each species x region cell, the mortality per set is computed for each vessel, and each vessel is assigned a standardized rank based on its mortality per set. The standardized rank is obtained by ranking the individual mortality per set values and then dividing each rank by the maximum rank. Each vessel's standardized ranks from the six cells are combined into one overall score by computing a weighted average of the standardized ranks, with weights equal to the number of dolphin sets in each cell.