

Hakuho Maru Marine Meteorological Observing System Data Quality Control Report

Cruises: P__13C/00
P__13J/00

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Introduction:

The data referenced in this report were collected from the research vessel Hakuho Maru (Call sign: JDSS; data provider: Ocean Research Institute, U. of Tokyo; P.I.: K. Taira) Marine Meteorological Observing System for 2 different WOCE cruises. The data were received in electronic format and converted into a standard FSU format. Then they were preprocessed using an automated data checking program. Next a visual inspection was completed by a Data Quality Evaluator who reviewed, modified and added appropriate quality control (QC) flags to the data. Details of the WOCE QC can be found in Smith et al (1996). The data quality control report summarizes the flags for the Hakuho Maru AWS data, including those added by both the preprocessor and the analyst.

Summary:

This data set was expected to include 1 minute resolution data for 2 WOCE cruises. The start dates, end dates, number of records, values, flags, and percentage of values flagged are included in table 1.

Table 1: Summary information for individual cruises

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LAT and LON were each flagged by the prescreener for 1775 "L", platform over land, flags. The ship appears to be positioned over the Australian continent. Attempts to confirm that the ship was travelling along some body of water were unsuccessful. Thus the flags were left as caution to the user.

RAD2 was initially flagged by the prescreener with "B" flags for values being below 0W/m². However, since the radiation sensor was measuring all radiation, and not just shortwave, as is normally the case with other systems, values of less than 0W/m² were expected. Thus the "B" flags applied by the prescreener were removed. All the RAD2 data are good.

B: Other cautionary flags:

These flags are added because of problems that are typical of all large data sets.

- 112 "D" flags added to T and TD for failure of $T \geq T_w \geq T_d$ test.
- 41 "F" flags added to LAT and LON for unreal ship movement.
- "S" flags added to TS and to DIR for various reasons.
- Varying numbers of "K" flags were added to a variable anytime the value did not seem reasonable, but no other evidence was available to support it being erroneous.

Final Note:

These data, with the exception of some of the PL_SPD values, are in very good condition. This data set should prove very useful.

References:

Smith, S.R., C. Harvey, and D.M. Legler, 1996: Handbook of Quality Control Procedures and Methods for Surface Meteorology Data. WOCE Report No. 141/96, Report WOCEMET 96-1, Center for Ocean Atmospheric Prediction Studies, Florida State University, Tallahassee, FL 32310.