APPENDIX V

End - to - End Data Management

Planning a Cruise

SHIP ROUTE Enter and plot the planned LLT positions

Make the cruise

SEAS Use GPS for actual LLT positions Encode a SHIP report of weather obs Digitize an XBT cast in BATHY code Transmit the reports to shore GOES, INMARSAT A and C

SEASPLOT Plot the observations

Generate real-time products

NMC, FNMOC, ECMWF, etc.

Send products back to observers

NODDS Download and display products 80 users receive 50,000 product by modem. On all NOAA RVs and RV Alpha Helix.

Standard Oceanographic Software

IODE software for oceanographic laboratories

BILKO Display and analyze satellite images
OCEAN-PC Enter, process, and display oceanographic data

IGOSS software for ships of opportunity

SHIPROUTE FNMOC Ship Routing Program
SEAS NOS Shipboard Environmental data Acquisition system
NODDS Navy/NOAA Oceanographic Data Distribution System

INTERNATIONAL OCEAN DATA EXCHANGE PROGRAMS
IGOSS Integrated Global Ocean Service System
IROSS

IGOSS and IODE will merge and adopt common formats:

BUFR Binary Universal Format for Observations
GRIB GRIdded Binary for gridded fields

GLOBAL ENVIRONMENTAL OBSERVATION PROGRAMS

WWW World Wide Web
GCOS Global Climate Observing System
GOOS Global Ocean Observing System
GTOS Global Terrestrial Observing System

- Objective: Monitoring the global environment in real-time to support interdisciplinary studies and simulations.
- The four programs must adopt common data management so that data can be shared globally between programs in real-time.
- GOOS will integrate data from research vessels, ships of opportunity, satellites, and buoys in real-time to generate products for millions of users.

United States VOS/Met Summary

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United States VOS/XBT Summary

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UPPER TABLE SUMMARIZES THE PRODUCTION OF THE SEAS VOS PROGRAM SINCE 1991 REGARDING THE NUMBER OF SEA SURFACE METEOROLOGICAL OBSERVATIONS TRANSMITTED IN REAL TIME.

LOWER TABLE SUMMARIZES THE PRODUCTION OF THE SEAS VOS PROGRAM SINCE 1990 REGARDING THE NUMBER OF SUB SURFACE XBT OBSERVATIONS TRANSMITTED IN REAL TIME AND THE NUMBER OF ROUTES SUPPORTED.

This appendix includes a NOAA chart of the Gulf Stream North Wall. This chart is available from the UNOLS Office.