



National Oceanic and Atmospheric Administration
Atlantic Oceanographic and Meteorological Laboratory
Physical Oceanography Division (PhOD)



NOAA ▾ Our Division ▾ Research ▾ Ocean Observations ▾ NOAA/AOML XBT Network ▾

AMVERSEAS is a real-time operational system used in research and commercial vessels worldwide to acquire and distribute oceanographic and meteorological observations. The system assists the Ship Of Opportunity Program (SOOP) (<https://www.wmo.int/pages/prog/amp/mmop/JCOMM/OPA/SOT/soop.html>) and the Voluntary Observing Ship (VOS) (<http://www.vos.noaa.gov/>) program in their effort to provide data to scientists working in climate research, weather forecast and modeling. The system also generates reports for the U.S. Coast Guard's Automated Mutual-assistance Vessel Rescue system (AMVER) (<http://www.amver.com/>) to aid in search and rescue missions at sea. **CLICK TO LEARN MORE (PDF)** (ftp://ftp.aoml.noaa.gov/phod/pub/seas/docs/AMVERSEAS_brochure.pdf)

Oceanographic Observations

The eXpendable BathyThermograph (XBT) has been used by oceanographers for many years to obtain information on the temperature structure of the ocean to depths of up to 2,000 meters. A standard XBT system (res:xbtxsv92005-2.pdf) consists on an expendable probe, a data processing/recording system, and a launcher. The SEAS XBT Data Recorder is a real-time data acquisition, and processing application that operates on SOOP vessels. The XBT data collected are typically transmitted in real-time and distributed globally.

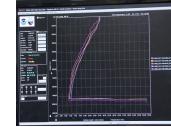
The SEAS TSG (Thermosalinograph) (./tsg) Data Recorder is also a real-time data acquisition and processing application for the SOOP vessels equipped with a SBE thermosalinograph (<http://www.seabird.com/products/ThermoS.htm>) unit to collect underway sea surface temperature and salinity observations. The TSG data collected are typically transmitted in real-time for quality control and global distribution.

Meteorological Observations

The SEAS Met(eteorological) Observations Logger application is one of the three world wide used electronic logbooks to produce high quality marine weather observations. This application operates on VOS program vessels to collect and transmit local weather conditions and to locate and determine the strength of weather systems. The SEAS AutoIMET Data Logger is a fully automatic real-time data acquisition and transmission application that operates on VOS and research vessels. It receives measured weather parameters from a Remote Computer System then formats the data and feeds the user interface for additional augmentation, allowing the quality control of the marine weather observations. The data are transmitted on a user-determined schedule; typically every hour using the World Meteorological Organization (http://www.wmo.int/pages/index_en.html) BBXX format.

AMVER

AMVER is a worldwide voluntary ship reporting system operated by the U.S. Coast Guard to promote safety of life and property at sea. Its mission is to quickly provide search and rescue authorities accurate on demand information on the positions and characteristics of vessels near a reported distress. The AMVER Reporter component submits four types of reports Sailing plan, Deviation report, Position report, and Arrival report used by the U.S. Coast Guard to update their data base allowing the identification of vessels in the vicinity of a ship in distress.



Download current version (V 9.3)

Install the components by checking the appropriate box:

SEAS Transceiver Interface, SEAS XBT Data Recorder, SEAS TSG Data Recorder, SEAS Met Observations Logger, SEAS AutoIMET Data Logger and AMVER Reporter.

Version 9.3 Changelog (HTML) (ftp://ftp.aoml.noaa.gov/phod/pub/seas/all_versions/AMVER_V9.3_Changelog.html)

Version 9.2 Changelog (PDF) (ftp://ftp.aoml.noaa.gov/phod/pub/seas/docs/AMVER_V9.2_Changelog.pdf)

Version 9.1 Changelog (PDF) (ftp://ftp.aoml.noaa.gov/phod/pub/seas/docs/AMVER_V9.1_Changelog.pdf)

Version 9.0 Changelog (PDF) (ftp://ftp.aoml.noaa.gov/phod/pub/seas/docs/AMVER_V9.0_Changelog.pdf)

AMVERSEAS_9.3.2.1.1.1.3.2.1.7 (ZIP) (ftp://ftp.aoml.noaa.gov/phod/pub/seas/amverseas_9.3.zip)

Manuals

AMVERSEAS Installation Guide

PDF (ftp://ftp.aoml.noaa.gov/phod/pub/seas/docs/AMVERSEAS_Installation_Guide.pdf)

AMVERSEAS Setup Guide

PDF (ftp://ftp.aoml.noaa.gov/phod/pub/seas/docs/AMVERSEAS_Setup_Guide.pdf)

SEAS XBT Data Recorder Setup Guide

PDF (ftp://ftp.aoml.noaa.gov/phod/pub/seas/docs/AMVERSEAS_XBT_Setup.pdf)

SEAS Console User Guide

PDF (ftp://ftp.aoml.noaa.gov/phod/pub/seas/docs/SEAS_Console_User_Guide.pdf)
Buoy deployment instructions
PDF (ftp://ftp.aoml.noaa.gov/phod/pub/seas/docs/Buoy_Deployment_Instructions.pdf)
Marine Mammal Sighting User Guide
PDF (ftp://ftp.aoml.noaa.gov/phod/pub/seas/docs/Marine_Mammal_Sighting_User_Guide.pdf)
Remote Command System User Guide
PDF (ftp://ftp.aoml.noaa.gov/phod/pub/seas/docs/Remote_Command_System_User_Guide.pdf)
SEAS TSG Data Recorder User Guide
PDF (ftp://ftp.aoml.noaa.gov/phod/pub/seas/docs/SEAS_TSG_Data_Recorder_User_Guide.pdf)
SEAS PC-Watchdog User Guide
PDF (ftp://ftp.aoml.noaa.gov/phod/pub/seas/docs/SEAS_PC_Watchdog_User_Guide.pdf)
SEAS Met Observations Logger User Guide
PDF (ftp://ftp.aoml.noaa.gov/phod/pub/seas/docs/SEAS_Met_Observations_Logger_User_Guide.pdf)
Sending meteorological observation via email
PDF (ftp://ftp.aoml.noaa.gov/phod/pub/seas/docs/Sending_Observation_via_email.pdf)
SEAS AutoIMET Data Logger User Guide
PDF (ftp://ftp.aoml.noaa.gov/phod/pub/seas/docs/SEAS_AutoIMET_Data_Logger_User_Guide.pdf)
How to install and setup the SMTP mailer service?
PDF (ftp://ftp.aoml.noaa.gov/phod/pub/seas/docs/How_to_install_and_setup_the_SMTP_mailer_service.pdf)
How to generate an XBT cruise report?
PDF (ftp://ftp.aoml.noaa.gov/phod/pub/seas/docs/How_to_generate_a_cruise_report.pdf)

Related Links

 (http://www.wmo.int/pages/prog/www/TEM/GTS/index_en.html) WMO Global Telecommunications System Go (http://www.wmo.int/pages/prog/www/TEM/GTS/index_en.html)	 (http://www.bom.gov.au/jcomm/vos/vosclim.html) VOS Climate (VOSclim) Fleet Go (http://www.bom.gov.au/jcomm/vos/vosclim.html)
 (http://www.ncdc.noaa.gov/oa/ncdc.html) NOAA / National Climatic Data Center Go (http://www.ncdc.noaa.gov/oa/ncdc.html)	 (http://www.nws.noaa.gov/om/marine/handbk1.pdf) NOAA / NWS Observing Handbook PDF (http://www.nws.noaa.gov/om/marine/handbk1.pdf)

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