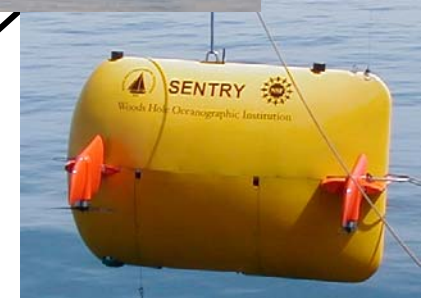


NDSF Data Management

DESSC
June 2008

Five Areas of Responsibility



NDSF DATA MANAGEMENT

(1)
Video and
Imaging Systems

(2)
Real-Time Data
Logging
and Display

(3)
Pre-Cruise and
Post-Cruise
Coordination

(4)
At-Sea Processing
Pipeline and QC

(5)
Processing
Tools

NDSF Data
Archives



NDSF Data Management

DESSC
June 2008

Web Page Improvements for Pre-cruise Planning

The screenshot shows the Woods Hole Oceanographic Institution (WHOI) website. The main header features the WHOI name and a search bar with a 'Search' button and a link to 'Advanced Search'. Below the header is a navigation menu with categories: Home, About WHOI, Research, People, Ships & Technology, Education, and News & Multimedia. Under 'Ships & Technology', there are sub-links for Ships, Underwater Vehicles, National Deep Submergence Facility, Instruments, Observing Systems, and Cruise Planning. The main content area is titled 'National Deep Submergence Facility' and includes a sidebar with links to 'About NDSF', 'NDSF Vehicles', 'Data', 'Cruise Planning', and 'Highlights'. The 'Data' section is highlighted and contains sub-sections: 'Data' (with links for 'Printer-friendly' and 'E-mail to a friend', and a 'font size' selector), 'Logging & Display' (describing data collection subsystems like DVLNav, Framo Grabber, Virtual Van, and Flørdormaus), 'Archive Policy' (describing WHOI's archival system), 'Data Acquisition' (describing vehicle design and sensor packages), 'Data Deliverables' (describing standard data packages), 'FAQs' (frequently asked questions), and 'Operations Summaries' (find dive histories and metadata for Alvin and other vehicles).



NDSF Data Management

Listing of Standard Data Products for Pre-cruise Planning

[Search](#)
[» Advanced Search](#)

[Home](#) | [About WHOI](#) | [Research](#) | [People](#) | [Ships & Technology](#) | [Education](#) | [News & Multimedia](#)

[Ships](#) | [Underwater Vehicles](#) | [National Deep Submergence Facility](#) | [Instruments](#) | [Observing Systems](#) | [Cruise Planning](#)

National Deep Submergence Facility

About NDSF

NDSF Vehicles

Data

- Logging & Display
- Archive Policy
- Data Acquisition
- **Data Deliverables**
 - » Commonalities of Vehicle Data
 - » *Alvin* Data Specifics
 - » *Jason* Data Specifics
 - » *ABE/Sentry* Data Specifics
- FAQs
- Operations Summaries
- NDSF Data Servers
- Lat/Lon XY Converter

Cruise Planning

Standard Data Products from NDSF Vehicles

[Printer-friendly](#)
 [E-mail to a friend](#)
 font size:

The National Deep Submergence Facility has established standards for data deliverables in order to:

- offer prospective vehicle users information necessary for pre-cruise planning;
- impose responsibility guidelines on the National Deep Submergence Facility; and
- reassure a departing Chief Scientist that she or he has received the expected collection of digital data.

Standards also serve the larger ocean science community by ensuring that products of consistent content and quality are available long after initial scientific studies are performed.

One full copy of the digital data package is delivered to the designated cruise Chief Scientist at the conclusion of the cruise. She or he will be required to sign a receipt for the collection. Another full set, including master versions, is transported to WHOI. Hard media are transferred to the WHOI Data Library, where they are archived in accordance with the [Archive Policy](#). Typical data package media are magnetic hard drive and optical digital versatile disk (DVD-R). Other media can include optical CD-R and digital magnetic video tape (DVCAM).

The submersibles operated by the National Deep Submergence Facility, Human Occupied Vehicle (HOV) *Alvin*, Remotely Operated Vehicle (ROV) *Jason* and the Autonomous Underwater Vehicles (AUVs) *ABE/Sentry* share a number of data commonalities. However, because they serve overlapping purposes using fundamentally different design approaches, the data collections from them do differ. Please see the following:

- [Commonalities of Vehicle Data](#)
- [Alvin Data Specifics](#)
- [Jason Data Specifics](#)









NDSF Data Management

Frequently Asked Questions for Pre-cruise Planning

The screenshot shows the Woods Hole Oceanographic Institution website. At the top, there is a search bar with a "Search" button and a link to "Advanced Search". Below the search bar is a navigation menu with tabs for Home, About WHOI, Research, People, Ships & Technology, Education, and News & Multimedia. Under "Ships & Technology", there are sub-links for Ships, Underwater Vehicles, National Deep Submergence Facility, Instruments, Observing Systems, and Cruise Planning. The main content area is titled "FAQs" and features a "Printer-friendly" link, an "E-mail to a friend" link, and a font size selector. The primary heading is "Alvin Data", with a sub-heading "What do I need to make copies of Alvin data?". The text explains that Alvin users receive about six DVCam video tapes per dive and can use a duplicating station in the Atlantis Main Lab to make copies on various media. It notes that digital tapes can be cloned to DVCam/MiniDV or copied to VHS, SVHS, or DVD-R. A warning is given that a filled DVCAM tape will exceed the capacity of DVD or VHS media, and that high-quality DVD-R is preferred. Finally, it advises bringing plenty of preferred media for other parties and mentions a general use DVD duplicator on Atlantis.

Woods Hole Oceanographic Institution

Home About WHOI Research People Ships & Technology Education News & Multimedia

Ships Underwater Vehicles National Deep Submergence Facility Instruments Observing Systems Cruise Planning

National Deep Submergence Facility

About NDSF

NDSF Vehicles

Data

- Logging & Display
- Archive Policy
- Data Acquisition
- Data Deliverables
- FAQs**
- Operations Summaries
- NDSF Data Servers
- Lat/Lon XY Converter

Cruise Planning

Highlights

FAQs

[Printer-friendly](#) [E-mail to a friend](#)

font size:

Alvin Data

What do I need to make copies of Alvin data?

Alvin users will receive about six DVCam video tapes per dive. Users can use the science duplicating station in the Atlantis Main Lab to make copies of these tapes to a variety of media. A description of this station and instructions for its use can be found [here](#). The science program must provide all media and manpower associated with the use of this duplicating station.

At the science duplicating station digital tapes (DVCam, or MiniDV from the sphere camcorder) can be cloned or copied to DVCam/MiniDV tapes and also copied to VHS, SVHS or DVD-R media. A deck is available for limited Hi-8 use. There are also Mac computers available for video editing. During this process a pre-defined data set can be burned into the copies as an overlay if desired. If you are backing up to mini-DV tapes the only type allowed in the duplicating system are those made by Sony and Fuji. Panasonic tapes cannot be used because they are formulated differently and will damage the recorder tape heads.

A filled DVCAM tape will exceed by a few minutes the capacity of DVD or VHS media. To avoid complications from these capacity mismatches, Alvin pilots routinely replace DVCAM tapes in the submarine's recorders at just under two hours. Users should bring extra media just in case. High quality DVD-R is the preferred media as inexpensive ones don't always work. Duplicating station DVD video recorders will not accept DVD+R media. Well-regarded brands of DVD media include Taiyo Yuden and Verbatim.

If you want to make copies of the tapes for other PI's and/or your science party be sure to bring plenty of your preferred media. Science parties have been known to make great cruise highlights DVDs with the system but sometimes do not bring enough media for everyone to get a copy. Atlantis carries a general use DVD duplicator that can perform bulk disc copying. This unit offers more media flexibility than the



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Data Archives

“**Management of Data**” = management of cruise data *plus* management of corporate knowledge

- **Data Server**

ndsfdh1.who.edu

Acquired in 2008

Dual quad-core CPUs, 4GB RAM, RAID, SCSI

- **Cruise Data**

Data from Spring 2008 dives onward will be staged online

- **Data is online in order to:**

- Maintain constant availability, i.e., not in a storeroom on media of finite lifetime
- Be available to be ingested into knowledge bases



NDSF Data Management

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Data Archives

NDSF Corporate Knowledge via NDSF Communication Portal

- Version control server for in-house software development
- Issues tracking through forums and NDSF-defined taxonomy
- Document management
- Logging through wiki and blogging
- All protected by RAID redundancy and tape backup
- Available to NDSF personnel on shore and at sea




NDSF Data Management

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Corporate Knowledge

Primary links Documents Forums

Documents Forums



NDSF Communication Portal

User login

Username: *

Password: *

[Log in](#)

- [Log in using OpenID](#)
- [Create new account](#)
- [Request new password](#)

Navigation

- [Recent posts](#)


NDSF Communication Portal Welcome Page

Sun, 03/16/2008 - 23:47 — admin

Hello. Welcome to the first bit of content put forth on this server. Should things work out right, much more will be found here in the future.

Eventually this will be a portal to all things related to NDSF data. For now my goal is to establish an easy-to-use portal that's more or less specific to Jason. There are several reasons for this:

[Read more](#)



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NDSF Data Management

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At-Sea Processing and Data Logging

Current Activities

- *Alvin*: turn-key navigation QC for *Atlantis* SSSG use
- *Sentry*: maturation of Reson sonar processing continues, merge with Mbsystem
- *Jason*: new Eventlogger, to be exercised during Mercer (June) and Reysenbach (July) cruises



NDSF Data Management

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Video and Imaging Systems

- **Video capability within new *Jason* control vans improved**
 - *Support for both SDI (HD-ready) and composite (legacy)*
 - *Flexible control of many more views*

- **High definition upgrade for *Jason* progresses**



NDSF Data Management

Five Areas of Responsibility

