

VENUS POLICY ON DATA AVAILABILITY AND USE

Version 1.2.1

Preamble

This Data Policy is intended for those who use the VENUS Facility for research or education purposes; most non-profit purposes likely fall under this rubric. Users in for-profit enterprises are asked to contact the VENUS Facility to discuss the proposed venture.

We recognize that no policy can cover all circumstances. Thus, Users may contact the VENUS to discuss clarification. This document is subject to modification as this novel project evolves.

1.0 Document Purpose

The primary purpose of this policy is to facilitate access to data by VENUS Users and to promote scholarly research in a collaborative setting.

This document seeks to:

- define the nature of data access in VENUS;
- present the responsibilities of the VENUS Operators and University of Victoria with respect to VENUS data;
- present the obligations of VENUS data users;
- state the obligations of instrument providers
- define data ownership conditions;
- present the ethical obligations related to publication of data;
- define the conditions on the use of data acquired from instruments through the VENUS array.

Data include the raw data streaming from instruments, all subsequent quality-controlled data that reside in the VENUS Archive and data products displayed on the VENUS website.

2.0 Operating Philosophy

The VENUS Data Policy supports the Operating Philosophy (see [*website reference*]) of this facility. The Philosophy acknowledges the needs of the Users, Facility owners and funding agencies. It commits VENUS to develop a sharing community that supports trainees, collaboration and quality data.

2.1 An Open Data Policy

VENUS data are available for use in scholarly studies or education purposes. This freedom brings with it the obligation to attribute data to the instrument provider and to acknowledge the role of the VENUS facility in acquiring the data. Publication of data from an instrument provided by another researcher should be preceded by permission from that researcher.

2.2 Responsibilities of the VENUS Facility

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VENUS will deliver a near real-time record of certain ocean conditions near Victoria in a manner to support rapid decision-making by researchers. VENUS will maintain an Archive of instrument data of the highest quality possible within the Facility's operating constraints.

2.3 Responsibilities of Instrument Providers

Instrument Providers may be the VENUS Project, investigators, government monitors, or instrument manufacturers. In all cases, one condition of access to VENUS is that the Provider submits metadata on data quality, calibrations or assessment software in addition to information on the instrument itself and data collection settings.

2.4 Responsibilities of Data Users

The success of VENUS as a facility and a community depends upon the quality of its data and the collaboration of its users. The User of VENUS data from any instrument is obligated to report irregularities or poor data quality.

3.0 Application

This data policy applies to everyone who accesses VENUS array data.

3.1 Research

The main target of this policy is the research community that the Facility is designed to serve in support of non-profit scholarly research. That community includes scholars at any research institution within or outside Canada. Use of the data to support public policy and decision-making also falls into this rubric.

3.2 Education and Outreach

Education at all levels is an auxiliary function of the Facility. Data products may be used in education in the non-profit setting. However, use of VENUS data or data products in commercial ventures for education will require approval and license; contact VENUS Operations for further information.

3.3. Commercial Use

Commercial use of the Facility for instrument tests or of VENUS data to support for-profit ventures will require separate agreement. Terms of this policy may not apply.

4.0 Data Access

Data are available to all users with access to the Internet both in real-time and through the VENUS Archive. Some data may be requested through storage media.

4.1 Real-time Data Availability

Data or data representations from VENUS instruments will be available on the Internet as close to real-time as possible for each instrument. Exceptions will include unreliable data from instruments under development and those undergoing service.

4.2 Data Flow Interruption

Network interruptions and planned maintenance may interrupt data flow. Notices

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will be posted and major users informed when a shutdown is planned. VENUS will endeavour to recover from unplanned interruptions as soon as possible and will inform the community in the event of a prolonged period out of service.

Certain data may be subject to diversion when deemed, by the Department of National Defence (DND), to be a security concern. This eventuality is addressed in an MOU between University of Victoria and DND. Identified data of interest include broadband acoustic signals. While some data may never be deposited in the Archive, some may be subject only to a delay. Interested investigators are requested to contact VENUS Operations.

4.3 Classified Research

Because of the location of the VENUS arrays, there may be interest to conduct classified research. Any such research will be conducted under the auspices of the DND/UVic Agreement. The nature of the research will be reviewed by the VP Research to ensure that no Institutional principles of research ethics are contravened. In the event that such research should interfere with observations directed to the academic community, the latter will be given precedence.

4.4 Event notification

Natural events of interest may be recorded by the VENUS array. VENUS is currently developing mechanisms for Users to set thresholds of interest in particular datastreams with the expectation of rapid notification of events. In this way, the Facility seeks to fulfill a mandate for “real-time response”.

4.5 Data Use Awareness

To promote communication among scientists and to encourage entry of new users, files that are downloaded by anyone will be tagged in the Archive. Methods of flagging “in use” files and providing links to users of those files are under development.

5.0 Raw Data

All data from instruments connected to the VENUS arrays will be acquired by the Archive with the exception of those data deemed a risk to national security. VENUS will archive the original raw data.

5.1 Data Ownership

Data collected by an instrument belong to the owner of that instrument. However, as those data flow through the VENUS array, ownership carries obligations to the Facility and to data quality. These obligations include instrument maintenance, metadata updates, data calibrations, and data sharing.

5.1.1 Ownership Declaration

The Instrument Provider may declare copyright on the data from his/her instrument. This declaration will be made in the Instrument Agreement between the Provider and VENUS. The copyright will appear in the metadata from that instrument. This tag informs other users of whom to contact for permission to use

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the data for publication. In the case of multiple investigators, they will inform VENUS whom the contact will be.

5.1.2 Ownership Transfer

The Instrument Provider may transfer ownership of the data to VENUS/UVic at any time.

5.1.3 Data Acknowledgement

Publication of data must have the permission of the owner and acknowledge both the Instrument Provider and VENUS.

5.1.4 Archive Ownership

The VENUS Archive, as an entity, is owned by University of Victoria.

5.2 Full Data Exposure

To fulfill its mandate as a community facility delivering relevant information, all data collected by instruments attached to the VENUS array will be fully available as received after an initial calibration period.

5.2.1 Investigator Research Instruments

Data from instruments provided by investigators will be subject to the agreement between that researcher and VENUS. VENUS will approve the conditions required to execute the plan of discovery. Investigators may request a special consideration for raw data embargo, particularly in the case of data quality control. However, the Investigator will be required to expose some aspect of the real-time data (=Abridged Data) to support other researchers and the Facility objectives (see Section 6.1).

5.2.2 Developmental Instruments

For some deployments, the objectives may be instrument development or calibration. Data from these instruments will not be exposed except for the posting of location, capability and purpose. When data are deemed reliable, conditions of Section 5.2.1 will apply.

6.0 Processed Data

Raw data are not always the most appropriate measurements for community and outreach uses. The success of VENUS lies in the willingness of investigators to provide quality data in a useable format.

6.1 Abridged Data

Instrument providers are required to provide a meaningful data product (near real-time) from their raw data for posting on the VENUS Website. The form will be agreed by each investigator (e.g running averages, current examples or event notification). Conversion of raw data to these forms may be automated in the data management system. Such products will carry investigator acknowledgement.

6.2 Quality Controlled Data

Investigators will be required to submit a plan for on-going quality control of data from their instruments. They are obligated to apply quality flags to all data and to record data corrections. The Archive may be updated at any time with quality controlled data. This workload is the responsibility of the investigator who should include the expense and implementation in their research plans .

6.3 The VENUS Archive

VENUS/UVic is obligated to maintain the Archive in the best possible form. It will undertake to apply the best storage and retrieval mechanisms affordable and to upgrade the Archive at regular intervals. The Archive will reside at University of Victoria.

7.0 Software Products for Data Manipulation

VENUS encourages the development of tools to manipulate data. VENUS will support three categories of tools:

7.1 Commercially available software

Some instrument manufacturers require purchasers to use their software products. VENUS will host these programmes to process data but oblige the manufacturers to provide products appropriate to VENUS.

7.2 Open Source Software

Users are encouraged to provide software that can be upgraded by subsequent users. The open source license would carry the originator's and modifier's names with the requirement that subsequent users distribute free of charge. VENUS-developed software will fall in this category.

7.3 Proprietary Software Tools

Users have the option of claiming copyright of the tools they develop. These would be available but not open to modification.

8.0 Results of Data Analyses

Discoveries made from VENUS-derived data belong to the discoverer. VENUS holds neither claim nor responsibility for these results.

8.1. Dissemination of Results

Investigators are expected to disseminate results in the normal academic venues. Publications shall bear acknowledgement of VENUS and of any investigators whose instruments contributed to the publication. Circumstances of co-authorship will be governed by prevailing scholarship ethics.

8.1.1 Deposition with VENUS

Investigators must deposit an abstract and reference for the accepted publication with the VENUS Archive. This Library will form the basis for long-term observations and assessment in the VENUS Study Areas.

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8.3 Use of Data and Results for Educational Purposes

All Users are encouraged to use VENUS data and results in education and public outreach venues. The VENUS website will endeavour to provide useful graphics for such purposes. Educational uses shall bear acknowledgement of VENUS and of any investigators whose instruments contributed to the presentation.

8.4 Other Uses of Data

Uses for commercial or for-profit purposes require special arrangement with VENUS.

8.5 Participation in Operating Grant Proposals

Publication, outreach, education, training and public service products are the indices that granting agencies use to measure success. Users are expected to provide examples of their uses of the Facility to aid in requests for further funding.

9.0 Dispute Resolution

VENUS will take responsibility for resolving certain conflicts through its Science Oversight Committee (Section 6.5 of User Guide). These conflicts include instrument control, data classification and data access. Use of data by investigators for publication falls within the purview of the Research Ethics policies of investigator home institutions.

submitted May 15, 2006