Changing Cold Regions Network Data Access Policy

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1. INTRODUCTION

The Changing Cold Regions Network (CCRN) Data Access Policy has been established to promote and govern the access of data collected within the CCRN research area by CCRN Investigators (NIs), CCRN Collaborators (COs), CCRN Partners (PAs), non-participants, and other Canadian and International groups. CCRN embraces as open an approach as possible to the exchange and access to data for scientific and non-commercial/ non-profit uses. This approach must respect the rights of the data originators who have invested considerable effort in obtaining and/or generating data. For this reason, policies for those participating in CCRN are different from those not participating or contributing to the project. These policies are described in the following sections. All relevant terms are defined in Section 7. This data access policy must be reviewed on an annual basis. At that time, the policy may be modified to improve its usefulness.

2. REQUESTS FROM CCRN INVESTIGATORS

Requests from CCRN NIs, COs and PAs will be given priority over non-participants in the project. Access to datasets for CCRN research will be unrestricted to CCRN NIs and COs after the data have been quality-controlled and documented by the originating CCRN NI. CCRN COs will direct their data requests through their associated CCRN NI.

2.1. Special CCRN Datasets

Special CCRN-funded datasets (observations and model results) can be obtained by CCRN NIs through the CCRN web site. To ensure that only CCRN NIs and COs have access, this portion of the CCRN web site will be accessible only by password protected user login. User permission and login information will be supplied by the CCRN Manager (NM). CCRN datasets can also be obtained directly from the originating CCRN NI. In accordance with the *CCRN Data Policy* (Appendix A), CCRN NIs have a responsibility to make their CCRN-funded datasets openly available to other CCRN NIs and COs after an initial reasonable period for quality control and documentation (following the *CCRN Data Documentation Guidelines*; Appendix B). This period will nominally be no longer than one year unless there are special circumstances (for example, if early release of data would jeopardize a graduate thesis) and an extension is granted by the Scientific Committee. After this quality control period, use of the data will be restricted to other CCRN NIs and COs for a period of one year, after which the data must be made publicly available.

2.2. CCRN Model Code

Where CCRN funds are used to develop model software code, that code will be made freely available to CCRN NIs, COs and PAs for use in their research during the course of the CCRN. This code will be available in as timely a manner as possible following model tests and validation, unless there are special circumstances (for example, if early release of code would jeopardize a graduate thesis) and an extension is granted by the Scientific Committee. The developer of the model code will be duly acknowledged in all subsequent use of the code.

3. REQUESTS FROM NON-PARTICIPANTS

Requests for data from the research community at large are invited, but requests by non-participants need to be approved on a case-by-case basis. Non-participants may become CCRN COs by teaming with a CCRN NI, who will subsequently apply to the CCRN Scientific Committee for permission to allow the new CCRN CO. Alternatively; non-participants may apply to the CCRN Scientific Committee to become a CCRN PA (following the CCRN Partnership Policy). Where appropriate and possible, some data sources will be made freely available for public viewing and use through a public website

3.1. Special CCRN Datasets

Special CCRN datasets (Observational and Modeling results) will only be made available to non-participants after a one year period in which CCRN NIs and COs have exclusive access. This period will begin after the CCRN dataset has been quality controlled by the originator.

3.2. CCRN Model Code

Where CCRN funds are used to develop model software code, it will be up to the discretion of the Scientific Committee, together with the NI who developed that code, to release it to non-participants of CCRN. An agreement will be reached between those parties on the terms and conditions of the software release.

4. REQUESTS FROM COMMERCIAL ENTITIES

Permission for anyone (CCRN participants (NIs, COs, or PAs) or non-participants) to use CCRN datasets for commercial/profitable purposes must be given by the CCRN Scientific Committee.

5. REQUESTS FROM OTHER NATIONAL AND INTERNATIONAL GROUPS

National and international commitments for sharing of CCRN datasets before the data becomes public will be considered on a case-by-case basis by the CCRN Scientific Committee.

6. ACKNOWLEDGEMENT

Any use of special CCRN datasets resulting in publications, requires discussion of, and agreement on appropriate co-authorship with the originating CCRN NI, in the event of major data usage, and acknowledgement of the originating CCRN NI in the event of minor data usage. For clarification on issues pertaining to publication of special CCRN datasets, contact the CCRN Scientific Committee. Any use of CCRN datasets requires at a minimum, acknowledgement and citation in any resulting publications of the CCRN dataset and, when applicable, citation of earlier studies by the CCRN NI responsible for the data. Appropriate citations are included with many of the CCRN datasets. If you would like to cite data for which a citation is not provided, please contact the CCRN NM for help in citing the data.

Acknowledgement of the use of CCRN data should also be made using a statement with the following format: *"The [***] data in this paper was provided by the Changing Cold Regions Network (CCRN)."* where [***] refers to the actual CCRN data used.

7. DEFINITIONS

7.1. CCRN Dataset

A CCRN dataset can be:

- observational, either station data or gridded data, resulting from CCRN-funded work, or
- model derived output, either utilizing CCRN special observations or resulting from CCRN funded work

7.2. CCRN Investigator (NI)

A CCRN NI is defined as one who:

- contributes scientifically to CCRN, and
- has been recognized as such by the CCRN Scientific Committee.

7.3. CCRN Collaborator (CO)

A CCRN CO is defined as one who:

- is working with a CCRN NI, and
- has been recognized as such by the CCRN Scientific Committee.

7.4. CCRN Partner (PA)

A CCRN PA is defined as one who:

- contributes scientifically to CCRN, but is not a CCRN NI nor a CO,
- has been recognized as such by the CCRN Scientific Committee.

7.5. CCRN Manager (NM)

The CCRN Manager is the one who manages the CCRN Secretariat, including ensuring a readily flow of information within CCRN and maintenance of the CCRN

7.6. Non-Participant

Non-participating researchers include any researchers who are not CCRN NIs, CCRN COs or CCRN PAs. Non-Participants include the general public.

APPENDIX A: THE CCRN DATA POLICY

The CCRN data policy statement is intended to be used as a basis for establishing the policy concerning access to CCRN data, and to promote internationally the mutual access to CCRN data where appropriate. The policy statement is as follows:

1. The CCRN requires an early and continuing commitment to the establishment, maintenance, validation, description, accessibility, and distribution of high-quality, long-term data sets.
2. Full and open sharing of the full suite of global data sets for all CCRN researchers is a fundamental objective.
3. Preservation of all data needed to meet CCRN research objectives is required. A clearinghouse process should be established to prevent the purging and loss of important data sets.
4. Data archives must include easily accessible information about the data holdings, including quality assessments, supporting ancillary information, and guidance and aids for locating and obtaining the data.
5. National and international standards should be used to the greatest extent possible for media and for processing and communication of global data sets.
6. Data should be provided at the lowest possible cost to CCRN researchers in the interest of full and open access. This cost should, as a first principle, be no more than the cost of reproduction and distribution. Agencies should act to streamline administrative arrangements for exchanging data among researchers.
7. Data, whether standard network data or special data collected by projects supported by CCRN, should be made openly available beyond an initial reasonable period for quality control.
8. Where appropriate and possible, some data sources will be made freely available for public viewing and use through a public website.

APPENDIX B: CCRN NETWORK DATA DOCUMENTATION GUIDELINES

To assist in meeting the objectives of CCRN, and to provide a useful and lasting legacy for further research, it is necessary that all data collected for CCRN, both observational and significant model results, be properly documented. It is the responsibility of the originating CCRN Investigator (NI) to ensure that the data collected is properly documented. The CCRN Data Access Policy provides for a time period after data collection for the CCRN NI to quality-control and to document his/her data. With respect to model output, the end of a data collection period is defined as the model run after a significant model revision (e.g. change of physics; improved routing; coupling). Data documentation should be complete enough to allow unfamiliar researchers to replicate and use the data in the future.

CCRN Observational Data Documentation Guidelines

The observational data documentation should contain the following headings:

1. Title
2. Abstract - Name the dataset and describe why the measurement was undertaken and how it relates to CCRN.
3. Contact Information - Give sufficient detail (name, affiliation, full address, telephone and fax numbers, e-mail, etc.) to contact those most knowledgeable about the dataset.
4. Site Description - including the following:
   - Data Period(s) and Location(s)
   - Equipment used -including manufacturer and model numbers.
   - Methods/Software used - in acquiring the data.
   - Data Format - including examples.
5. Data Processing/Quality Control - including the following:
   - Methods/Software used - in acquiring and processing the data
   - Post-Collection Data Processing -description of any processing done on the data.
   - Quality Control Methods - give an indication as to the degree of quality control.
   - Datasets Archived -original "raw" data should be one of the archived datasets in addition to any processed or QCed data.
6. References

CCRN Model Data Documentation Guidelines

The model data documentation should contain the following headings:

1. Title - Model name, version number.
2. Abstract - briefly describe the model and its properties and describe why the model run was undertaken and how it relates to CCRN.
3. Contact Information - Give sufficient detail (name, affiliation, full address, telephone and fax numbers, e-mail, etc.) to contact those most knowledgeable about the model run.
4. Run Description - including the following (valid web links acceptable):

- Period(s) and Location(s)/Resolution/Map Projection
- Initialization and Boundary Data used
- Model used - complete description of the model, physics package, any coupling state, etc.
- Data Format - including examples.
- Archive Location/Media - online link or offline contact person.

5. References