

The Canadian Air and Precipitation Monitoring Network

Réseau canadien d'échantillonnage des précipitations et de l'air

Retention Criteria for AQRD Legacy Data Sets to be Archived in NAtChem/Open Data

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“Data are the lifeblood of science and the key to understanding this and other worlds. As such, data acquired in federal or federally funded endeavors, which meet established retention criteria are a critical national resource and must be protected, preserved, and made accessible to all people for all time.”¹

Definition

A **“Legacy Data Set”** is a set of finalized quality assured data judged to be a Government of Canada **resource of business value**² that has sufficient long-term scientific value to be archived and made publicly available for future research, regulation and/or education. Legacy data can be observational, experimental, modelled, simulated or derived. In rare cases, legacy data can also consist of raw measurements that, in the future, might be subject to changes or adjustments due to evolving science, algorithms and/or calibration standards.

Criteria for the Retention/Archival of Legacy Data Sets

A data set should be archived and disseminated over the long term if it satisfies one or more of the following criteria:

- The data set constitutes a **resource of business value** that meets at least one of the following conditions:
 - The data are required to support the mandate, operation or decision-making of the department, programs, or services
 - The data set represents a key output from a departmental program, service or project
 - The data set has potential to be useful in the future for science or environmental protection and management
 - If the data were to disappear, there would be consequences to the departmental or program mandate, operations or decision-making.
- Preservation and sharing of the data could contribute to the environmental, scientific, cultural or economic benefit of Canada.
- The data are considered to be of significance and of interest to future science, research, regulation, or education related to defining the status, trends, composition or properties of the atmospheric environment, satisfying one or more of the following:
 - the data define important atmospheric chemical composition, physical properties, conditions or changes over a specific time, place, spatial domain or time interval;
 - the data represent new, hazardous or unusual chemical compounds or chemical/physical properties of the atmosphere;
 - the data are from sparsely-measured or seldom-measured areas of Canada;
 - the data are from highly impacted areas of Canada;
 - the data are unique in some fashion.
- The ECCC research/funding program requires that the resultant data be archived and/or disseminated to the public.

¹ Preserving Scientific Data on Our Physical Universe – A new strategy for Archiving the Nation’s Scientific Information Resources (1995). Report of the United States National Academy of Science.

² Resource of business value (Directive on Record Keeping): *“published and unpublished materials, regardless of medium or form, that are created or acquired because they enable decision making and the delivery of programs, services and ongoing operations, and support departmental reporting, performance and accountability requirements”*.

- Regulatory, legal, patent, copyright or compliance requirements exist for the preservation and dissemination of the data.
- National/international obligations require the archival and dissemination of data.
- Publication of an article in a scientific journal requires that relevant data be archived and shared with the scientific community.
- The data are required to document verifiable results.

Non-Retention Criteria

Data sets will not be retained if they meet one or more of the following criteria:

- The cost of preserving and sharing the data strongly outweighs the anticipated usefulness of the data in the future;
- The data represent a snapshot in time and/or space of atmospheric conditions and are unlikely to be replicated or compared to future conditions;
- The data and metadata are archived and made available through another data centre;
- The data are of minimal value for quantifying the chemical or physical characteristics of the atmosphere.