



Policy on the availability of data associated with articles published in Society journals

1. Background

- 1.1 Data is such a wide ranging term that it means many things to many people, and one single definition of data cannot hope to capture all eventualities. For the purpose of this policy, data means the results of experimentation or measurements or observations of a set of variables, which may or may not be quality controlled. In this instance we also include super-observations (created by combining observations or observations and model output), and output from models used to simulate a variable or set of variables. We do not include the model code or any processing code as data, however it is often important for authors to also providing such information where it is relevant as supporting the data – this we term as meta-data.

2. Publishing journal articles that have related data sets

- 2.1 The Society recognises that data are a key output of research, and an inherent principle of publication is that others should be able to replicate and build upon authors' published claims. In this way science is advanced by avoiding costly repetition and fostering creativity.
- 2.2 Therefore, a condition of publication in a Royal Meteorological Society journal is that authors are required, if requested, to make materials and data promptly available to readers where it is possible to do so under the restrictions of institutional or third party licensing agreements. Any restrictions on the availability of materials or information must be disclosed to the Editor at the time of submission.
- 2.3 Any decision on whether to proceed with publication in cases where data restrictions apply is at the Editor's discretion. Authors have the right to appeal the decision to the Society's Scientific Publishing Committee, but any appeal will only be heard if the author can demonstrate that there are extenuating circumstances or new information not available to the Editor at the time of their decision.
- 2.4 Any data associated with the submitted article must be made available to Editors and peer-reviewers at the time of review, if requested by the Editor, in order to ensure a comprehensive peer-review process. The data must be placed in a data centre or on an easily accessible website where the Editors and Reviewers are able to view the data (with a password if necessary). The Society journals reserve the right to refuse publication in cases where authors do not provide adequate assurances that they can comply with this policy.

- 2.5 After publication, readers who encounter refusal by the authors to comply with this policy should contact the Editor-in-Chief of the journal. In cases where Editors are unable to resolve a complaint, the journal may refer the matter to the Society through its Chief Executive.
- 2.6 The preferred way to share data is via public repositories. These repositories generally allow confidential access for peer-review and co-ordinate public release of the data with the journal's publication date. This option should be used when possible, but it is the author's responsibility to communicate with the repository to ensure that release is made promptly. If there are any supporting data sets for which there is no public repository, then authors should undertake best endeavors to make this available as freely accessible as possible and maintain this availability through a given URL.

3. Citing data in journal papers

- 3.1 Citations to data sets in Society publications must meet the same type of standards for public access and long-term availability as are applied to citations to the scientific literature. Thus data cited must be permanently archived in a data centre(s) that:
- are open to scientists and, where appropriate, public access throughout the world;
 - are committed to archiving data sets indefinitely;
 - provide services at fair and equitable costs.
- 3.2 The World and National data centres meet these criteria. Other data centres may also be acceptable as an archive for this material if there is a commitment to migrating data to a permanent archive when the centre ceases operation. Citing data sets available through these alternative centres is subject to approval by the journal Editor.
- 3.3 Data that are available only from the author, and not from a recognized data centre that complies with the criteria above, may not generally be cited in Society publications. If such data are essential to the paper, then authors should treat them as they would a personal communication.
- 3.4 To assist scientists in accessing the data, authors are encouraged to include a brief data section in their papers. This section should contain the key information needed to obtain the data being cited and any appropriate, relevant and associated meta-data.
- 3.5 Data that meet the requirements stated above can be included in the reference list as: author(s), title of data set, access number or code, data centre, location, country, and date.

4. Article specifically about data sets – 'Data Papers'

- 4.1 Data sets discussed in data papers published by the Society must be made publicly available and accessible to the scientific community. Authors of such papers are required to deposit their data sets in a data centre that meets the criteria discussed above.

- 4.2 Data sets that are the basis of data papers will be subject to review. A sample of these data sufficient for the review process must be supplied with the submission of the paper. The reviewer is expected to comment on the data as if they were an integral part of the paper.
- 4.3 Data sets for data papers must include a descriptive 'metadata' section that provides the user with key information about the collection, preparation and use of the data set.
- 4.4 At the time of submission, authors must supply complete information about the archiving of the data sets. To avoid possible delays in the publication of the data paper, authors should consult with the data centre(s) before submitting the paper to the Society's journal. If the data sets have been archived before the paper is submitted, information on accessing them must be supplied to the reviewers.