

MWA/GEG Policy

Version	Date	Description	Edits
0.1	12 Nov 2012	Initial draft	LSS
1.0	7 May 2014	Refer to, not quote, MWA policy	LSS, JB
1.1	21 May 2014	Version for GEG comment	JB, BMG, MJH, RW, NHW
1.2	15 July 2015	Drop separate GEG paper review period; other minor updates	LSS, NS, MJH
1.3	22 Mar 2016	Clarified use of builders list for non-refereed conference proceedings and criteria for joining refreshed builders list	NS
1.4	3 Oct 2016	Added review process for GEG papers using non-proprietary MWA data	NS, MJH
1.5	3 March 2019	Reviewed the whole policy and revised it considering the Large Project policy and new surveys.	GG, TV

1 Background

The MWA Galactic and Extragalactic (GEG) science program is one of four key science programs. GEG program members are interested in the study of science topics that exclude the EoR, the Sun/Heliosphere/Ionosphere, and variable sources. A convener, who is assisted by a GEG project scientist, leads the GEG program. There are currently six science teams and two surveys team (GLEAM-X and DEEP surveys), each led by a coordinator.

2 Scope

This policy applies to MWA members who wish to publish any MWA data pertaining to GEG science as part of the consortium guaranteed time whilst those data or their higher-order products are within their respective proprietary periods. This includes **GLEAM**, Large Project data (i.e. any

projects with more than 500 hours) and any other data relating to Galactic and Extra-galactic science. Raw data that are still proprietary is also subject to the project-wide MWA publication policy (MWA Board 2013a). The policy covers the publication of scientific data, algorithms, technical issues, software and system descriptions. This policy will be reviewed from time to time. Publication matters not explicitly covered here should be referred to the GEG convener.

3 Science Project Proposals

The MWA team is large and diverse. In order to maximise coordination of effort, all proposals for GEG research activity potentially leading to a publication need to be discussed by members of the GEG program and approved by the convener and the relevant science team coordinator. This process can be expedited in the case of a time critical or sudden event. Student proposals should likewise be discussed in the same context, before an MWA-wide proposal is made, following the procedure outlined in the MWA student policy (MWA Board 2013b). The GEG convener will normally provide a recommendation to the MWA project scientist on the appropriateness of all student proposals.

Calls for new GEG science proposals will be made from time to time, but GEG team members may submit such proposals at any time using the agreed pro-forma available from the internal GEG web site. Proposals will need to be made available to the entire GEG team for at least two weeks prior to approval. All successful science proposals will be listed on the internal GEG web site. Science proposals will need to be followed up by a publication, or renewed, within two years. Principal investigators of accepted science projects will be requested to provide a project update every 6-12 months.

In order to track the usage of MWA data and avoid conflicts GEG members are encouraged to submit a project proposal even if they use publicly available data (e.g. GLEAM data or data outside the proprietary window).

4 Publications

4.1 General

All papers must derive from work based on an accepted GEG project proposal. Then the following step depends on whether the MWA data is proprietary or not. As per the MWA data access policy, the raw MWA data has a proprietary period of 18 months, whilst higher-order data products derived from raw data by the GEG science team have a proprietary period defined by the respective science team, in this case GEG. Paper proposals submitted within 18 months of the data being taken are subject to both the MWA publication policy and the GEG. Publication policies while

paper proposals submitted after the raw data proprietary period but which use higher-order proprietary data products are subject to the GEG publication policy only. These two policies are outlined below, but we note common elements here:

- Papers need to be led by a GEG team member or student supervised by such a team member.
- Papers will need to have been through the project proposal procedure outlined above.
- Papers using non-public GLEAM, **GLEAM-X**, **MIDAS** and **GOLD** data (raw or processed) will need to include authors in the appropriate GLEAM, **GLEAM-X**, **MIDAS** and **GOLD** builders list.
- Publications which use data from GLEAM should include a reference to the GLEAM survey paper (Wayth et al. 2015).
- Non-refereed conference proceedings containing non-public GLEAM data do not require the full GLEAM builders list at the consent of the GEG convener.
- Publications which use data from GLEAM-X, MIDAS and GOLD should include a reference to the GLEAM survey paper (Wayth et al. 2018, Beardsley et al. 2019-in prep).

4.2 MWA publication

Once serious work has commenced on a publication related to a science proposal (submitted during the proprietary period of the raw data), but well before a draft paper is available, the MWA publication policy (MWA Board 2013a) requires that a publication proposal be circulated to MWA members. The final paper should be distributed to MWA members within a year of the publication proposal.

When a paper is ready to be submitted for publication, in addition to the steps above two further MWA policy steps of collaboration review and final review need to be completed. See Figure 1, and the MWA publication policy. The latter refers to the MWA builders list who may need to be added as co-authors, the MWA system description paper, which needs to be cited, and lists appropriate acknowledgements. You must consult the latest MWA publication policy for updated information and requirements.

Any disputes or variances to be adjudicated by the GEG convener prior to referral to the MWA project scientist.

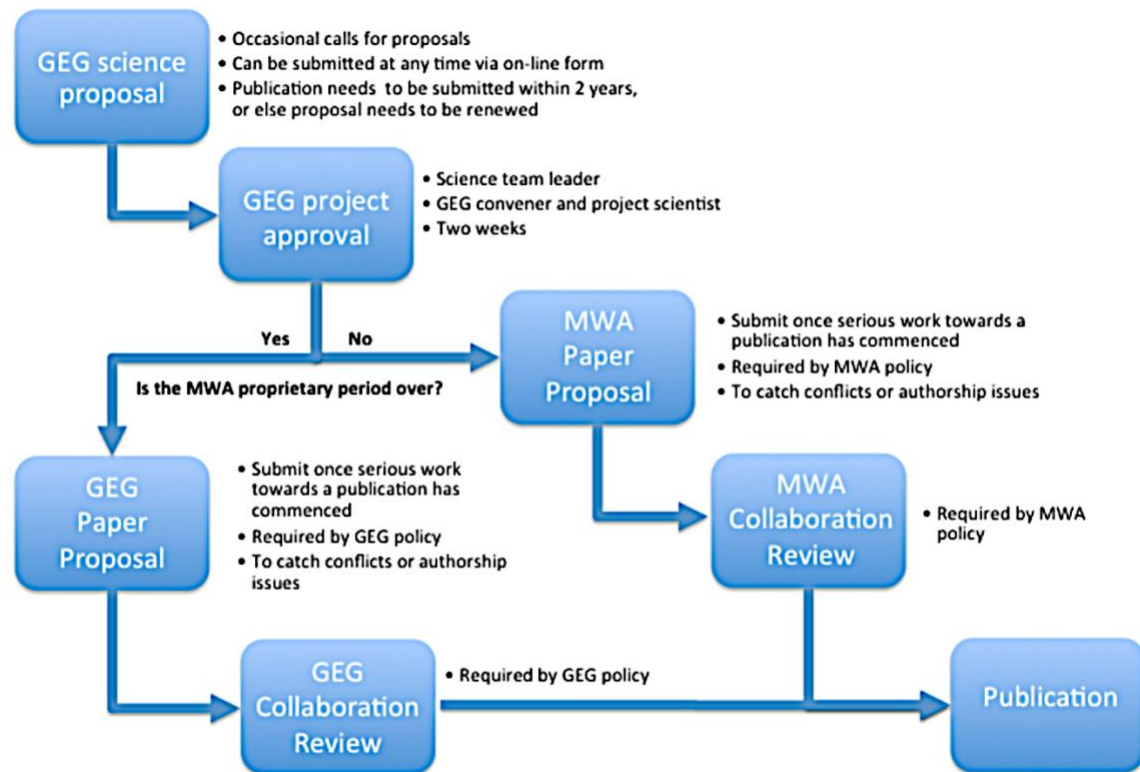


Figure 1 Diagram showing the paper proposal and review process

A publication arising from a GEG project using either proprietary raw or proprietary higher-order GEG data must follow the GEG publication policy (this document). As mentioned above in the case of publications proposed during the period that the raw MWA data were in their proprietary period, the publication is subject to both the MWA and GEG publication policies. This ruling is regardless of if the raw data have since passed into the public domain.

In the case of a publication proposed after the raw data have ceased to be proprietary but which utilizes proprietary higher-order data products, only the GEG publication policy applies. So as not to double up on the review period for any given publication, if the MWA publication policy is applicable the paper will only be subject to the MWA full Collaboration review procedures. In the case where only the GEG publication policy applies, a GEG review period will apply.

The procedure for the GEG review is as follows and is additional to the requirements listed in Section 4.1:

- The lead author or project coordinator notifies the GEG convener and GEG project scientist that a paper is in preparation.
- The GEG convener and GEG project scientist approve this within one week (this is normally a formality, but will reduce the chance of conflict).

- The lead author sends round the paper to GEG with two weeks for comments from anyone who contributes (plus the appropriate builders' list if it is using Large Project data) .
- The lead author must acknowledge all comments in good faith and will work to address them where practical. Any conflicts, including content and authorship, should be resolved in the first instance by discussion between the GEG convener and the relevant parties. If no such resolution can be achieved collaboratively, the issue should be referred to the MWA Project Scientist and if necessary, the MWA Board.
- After two weeks, and responding to the comments, the lead author may submit the paper, and will send a copy of the submitted paper to all co- authors as well as the GEG convener and MWA project scientist for their records.

4.4 Policy for Papers Based on Public Higher Order Data

For papers based on higher-order publicly released data members of the MWA Collaboration are encouraged to still follow the project and paper proposal route to ensure no duplication of effort and ensure the best science outcomes by drawing on the great breadth of the MWA Collaboration.

4.5 Builders lists & Authorship

- **GLEAM**

This list contains people who have substantially contributed to the GLEAM data processing and coordination, quality assurance, database management, source-finding, source parameterisation and production of major catalogues. It is independent of any MWA builders' list. The GLEAM *builders list* is available on the internal GEG web site¹ and will be updated from time to time. Applications to be added to the list should be directed to the GEG convener who will consult with the GLEAM survey leader. Regarding the use of the GLEAM builders list:

- Any projects proposed after GLEAM was made public that use “interim” GLEAM data products (or products produced during the creation of the GLEAM survey such as calibrated datasets) DO NOT need to have the builders' list on them.
- Papers from existing projects that were proposed for before GLEAM was made public are still required to include the builder' list on them, but should now treat the builders' as “opt-in”. This means authors should circulate the papers to members of the builders list and ask if they would like to be co-authors.

- **Large Project Builders list**

¹ <https://wiki.mwatelescope.org/display/MP/GEG+Survey+Builders+Lists>

Builders lists for the GLEAM-X, MIDAS and GOLD surveys are currently being populated and will be available on the internal GEG web site. Until then, if a member uses data from GLEAM-X (PI: Natasha Hurley-Walker), GOLD and MIDAS (PI: Nick Seymour) then the corresponding publication should include PIs as a co-author (even if independent data processing is done).

- **Other**

If data used for any GEG paper is from a proposal that was not GLEAM or another large project and the paper authors are not the original proposers of the data *and* the data is still within the proprietary window, then the PI of the data proposal should be contacted and offered co-authorship on the paper.

5 Acknowledgements

No acknowledgments are required beyond those stated in the *MWA publication policy*.

References

MWA Board (2013a), *MWA Publication Policy*, www.mwatelescope.org/index.php/team

MWA Board (2013b), *MWA Student Policy*, www.mwatelescope.org/index.php/team

Wayth, R.B. et al. (2015), PASA, 32, 25

Wayth, R.B. et al. (2018), PASA, 35, 33

Beardsley et al. PASA submitted.