

## **MWA STUDENT POLICY**

Version 1.0 (Gaensler), approved by the MWA Board on 30 Jun 2010

We here present the policy for student participation in the Murchison Widefield Array (MWA) collaboration. For reference, relevant definitions and policies from the *MWA Statement of Collaboration* (dated 4 Sep 2009) are reproduced as an appendix.

1. The MWA Collaboration encourages participation in the MWA project by undergraduate and postgraduate students. Students whose degree requirements depend on MWA data, hardware or software must hold individual membership of the MWA Collaboration as per the conditions and procedures defined in the *MWA Individual Membership Policy*.
2. A prerequisite for such membership is that the student's research project be formally recognized as an MWA Student Project. The procedure for obtaining such recognition is as follows:
  - a. Any individual member of the MWA Collaboration (as defined in the *MWA Individual Membership Policy*) who is not themselves a student can nominate a student project to be recognized as an MWA Student Project;
  - b. Nominations for MWA Student Projects must be sent to the entire MWA Collaboration (via email to all@mwa-lfd.haystack.mit.edu), and must include a brief description of the project, the names of the project supervisor(s), the name of the student, the degree which the student is undertaking, the institute(s) with which the student is affiliated, and the likely start and finish dates for the student's participation in MWA activities;
  - c. Individual members of the MWA Collaboration who have concerns or disputes regarding such a nomination should communicate these issues to the Chair of the MWA Science Council within two weeks of receiving the nomination;
  - d. Within four weeks of receiving the nomination, the Science Council will either adjudicate on the nomination, or will refer the matter to the MWA Board for their decision;
  - e. If a nomination is approved, the Chair of the Science Council will announce this decision to the entire MWA Collaboration (via email to all@mwa-lfd.haystack.mit.edu), and will add this project to the list of MWA Student Projects published on the MWA WWW page. The list on the WWW will reproduce the information provided in item 2(b) above, with appropriate modifications developed by consensus between the nominator and the Chair of the Science Council.
3. Four Key Science Programs have been identified within the MWA Collaboration, as listed in Section 1 of the *MWA Statement of Collaboration*. It is anticipated that most MWA Student Projects will fall under the aegis of one of these Key Science Programs.

In such cases, it is expected that the corresponding science collaboration will monitor the progress of MWA PhD students. However the progress of the student remains the responsibility of the student's supervisor(s).

4. In the event of a dispute over student projects or student participation, the Science Council will make a recommendation to the MWA Board, whose decision on this issue will be final.

**APPENDIX:**  
**RELEVANT MATERIAL FROM STATEMENT OF COLLABORATION**

1. GOALS

The initial goal of the MWA Collaboration is to demonstrate technologies and techniques suitable for future application on larger scales, and to pursue targeted high-value science objectives. This includes construction of an array of up to 512 receptor tiles to be operational in the 80 to 300 MHz frequency range in order to demonstrate a new capability for the study of a number of fundamental questions in astrophysics and in heliospheric science. The demonstrator phase includes construction, commissioning, and early science operations on a site at the proposed Murchison Radio Observatory in Western Australia.

Four Key Science Programs have been identified:

- (a) Formation of structures during the epoch of re-ionization in the early universe (EOR);
- (b) Solar, heliospheric, and ionospheric phenomena (SHI);
- (c) Discovery and characterization of transient radio phenomena;
- (d) Study of Galactic and Extragalactic Phenomena, excluding items (a), (b) and (c).

2. DEFINITIONS

"Associate" means an individual who contributes to the MWA in the design, construction or operation phase but whose employer is not a member of the MWA Collaboration.

"MWA Collaboration" means the collaborative project of the Parties signatory to this SOC and the respective member organizations in Australia or the U.S. whom the Parties represent.

"MWA Science Collaboration" means a collaboration of scientists formed for the purpose of pursuing a specific scientific goal with the MWA.

"MWA Science Council" means a group appointed by the MWA Board to advise it on matters of science policy and other matters as the Board may specify.

"Observing Time" means the time on the MWA facility that is scheduled for scientific observing, excluding the time required for engineering, commissioning activities, and maintenance.

"Open Skies" means that proposals for observing time may be submitted by any scientist or group of scientists from any country in the world for review by the MWA Time Allocation Committee.

9. COLLABORATION MEMBERSHIP AND ASSOCIATION

9.1 The MWA Board will determine subsequent membership in the MWA Collaboration, to be reflected in amendments to the Statement of Intent.

9.2 Organizational membership of the MWA Collaboration may be modified with a unanimous vote of the MWA Board.

9.3 Other Associates shall be permitted to join the MWA Collaboration subject to a unanimous vote of the MWA Board, who shall determine the terms under which the Associate shall be invited to join.

9.4 Individuals may be members of the MWA Collaboration via an organization's membership in the MWA Collaboration. Member organizations will determine the inclusion of an individual in the MWA Collaboration. The term of the individual member is indefinite so long as the individual's employing organization is a member of the MWA Collaboration. If an individual changes employer or if the employing organization withdraws from membership, the MWA Board determines if the individual should continue as an Associate.

## 12. MWA BOARD RESPONSIBILITIES

The MWA Board shall:

12.1 provide scientific leadership to the Project;

12.2 determine institutional membership of the MWA Collaboration;

12.3 determine the scientific publication policy of the MWA Collaboration and act as arbitrator in any disputes over authorship;

12.4 determine the policy on access to observing time on the MWA;

12.5 be the primary forum for interactions and decisions between The Parties;

12.6 ensure that MWA Project is carried out in accordance with the terms of this SOC;

12.7 be the body with overall budgetary and policy control over the MWA;

12.8 provide guidance and approves and coordinates requests for additional MWA resources to funding agencies;

12.9 meet at least twice per year;

12.10 define, appoint, and review, as necessary, such committees as the MWA Board deems necessary;

12.11 determine the duration of Construction and Commissioning of the MWA facility, in consultation with the MWA Director and Project Office;

12.12 appoint the Managing Organization;

12.13 approve the job descriptions and appointments, by two thirds (2/3) vote, of the MWA Director and MWA Project Manager;

12.14 approve, in consultation with the MWA Director and MWA Project Manager, the job descriptions and appointments, by two thirds (2/3) vote, individuals to the key MWA positions as defined in the MWA Project Governance and Management Structure document.

12.15 provide guidance to the MWA Director and MWA Project Manager on the content of their management plans;

12.16 approve a Project Execution Plan;

12.17 ensure that all agreements and contracts on MWA matters entered into by the Managing Organization are in the best interests of the MWA and do not conflict with this SOC;

12.18 provide oversight of the MWA Director and MWA Project Manager in defining Sub-project Teams and Team Leaders.

#### 14. MWA SCIENCE COUNCIL RESPONSIBILITIES

In accordance with the MWA Project Governance and Management Structure document, the MWA Science Council shall:

- 14.1 provide advice to the MWA Board on science policy and other matters as specified by the Board.
- 14.2 report to the MWA Board via minutes of all meetings;
- 14.3 oversee the MWA Scientific Collaborations and the resulting science plans;
- 14.4 formulate and recommend to the MWA Board, scientific publication policy for the MWA.

#### 16. OBSERVING TIME, DATA ACCESS, AND PUBLICATION POLICY

16.1 Arrangements to access the MWA Facility will be developed by the MWA Board which will recognize the contributions of the U.S. MWA Consortium, the Australian MWA Consortium and the RRI. Access to the site itself will be subject to compliance with the terms of any access agreement required by CSIRO.

16.2 The MWA Board shall establish the policy for the assignment of observing time on the MWA, considering the following principles: (a) During Early Science Operations, the EOR and the SHI MWA Science Collaborations shall be given priority. (b) During Operations, Open Skies shall be the fundamental guiding principle for allocating observing time, giving due consideration to the needs of the Key Science Programs. (c) Observing time allocation shall be determined by the MWA Time Allocation Committee, subject to policies set by the MWA Board.

16.3 Policies regarding access to the databases of each Scientific Program shall be determined by the MWA Board.

16.4 Publication policies shall be formulated by the MWA Science Council, subject to approval by the MWA Board. While every effort shall be made to implement a uniform publication policy across the project, it is recognized that one or more major MWA Science Collaborations may require individual policy provisions.

16.5 Observing time, data access, and publication policies may vary among the Key Science Programs, and may include proprietary periods for MWA Science Collaboration members.