

MWA Call for Proposals – 2017-B semester

April, 2017.

To: Prospective users of the Murchison Widefield Array (MWA)

From: MWA Director (A/Prof. Randall Wayth)

This Call for Proposals is for the allocation of up to 1600 hours of observing time in the Guaranteed Time and Open Access categories, during the period July 1, 2017 – Dec 31, 2017. This observing period is designated 2017-B. Note that the availability of the telescope for general use may be restricted due to the ongoing MWA Phase II long baseline upgrade. The array configuration will also be changed compared to previous semesters as outlined below.

Up to 25 hours of observing with the MWA's Voltage Capture System (VCS, see [here](#)) will also be available.

Prospective users should review the results of the allocation of observing time for previous MWA observing semesters at: <http://www.mwatelescope.org/astronomers>
Telescope characteristics and modes are available at: <http://mwatelescope.org/telescope>

Special instructions for 2017-B:

Work to complete the long baseline expansion for MWA Phase II will be continuing through 2017-A. It is expected that the long baselines will be commissioned by mid year. The priority for 2017-B is to have at least 3 months of operations in the extended configuration. Since there is some uncertainty about how much time the array will spend in the compact and extended modes, the requirements for new projects with modest time requests (< 20 hours) have been relaxed. We encourage prospective users to submit proposals despite this uncertainty and will endeavour to fill as many programs as possible.

In 2017-B, a new web-based submission form will be trialled. Science and technical justifications will still be uploaded as an attached PDF. Proposals can still be emailed to the MWA Director in case of problems with the online form. If there are problems with the form, please notify the MWA Project Scientist (kaplan@uwm.edu).

Please complete the following proposal template, adhering to the page limits indicated (minimum font size of 12 pt). Complete the online form or send the completed form as a PDF file to the MWA Director (MWA-Director@curtin.edu.au), as indicated on the form by the deadline: 30th April 2017

Online form submission page: mwatelescope.org/2017B/

Part A – Team/summary information

Note: The information in Part A is captured in the online form. It is recommended to include this information in the submitted form while we trial the online system.

Title of proposal:

Area(s) of MWA science (EoR; GEG; Transients; SHI):

Members of Proposal team (list names, titles and institutions):

Category of time requested (GT or OA):

Total time requested (hrs):

Time requested that is commensal with other proposals, if known (hrs). List any known commensal proposals:

Array configuration required: compact, extended or any

List of frequencies requested in this proposal:

List of observing modes requested in this proposal (including the spectral and temporal resolution of the correlator output required, use of Voltage Capture System etc):

Is this a continuation of a previous proposal (if so, list project #)?:

Abstract (maximum 300 words):

Part B – Project Description

Provide a description of the project (maximum of 3 pages, including figures and references).

For 2017-B:

- proposals requesting < 20 hours of time: 1 page of justification including feasibility and why any existing data are not suitable

Please include:

- A scientific justification for the project;
- Information demonstrating feasibility against the MWA capabilities, in particular describing why the MWA capabilities are essential for the science proposed;
- If this is a continuation of a previous proposal, include progress report (maximum 300 words).

Part C – Technical requirements and data management

Provide a description of the technical requirements for this project (maximum of 2 pages, including figures and references). Please include:

- A statement of the observing time required, broken down against observing mode (drift scan or pointed and tracked, spectral and temporal resolution of correlator output, Voltage Capture System observations), observing frequencies, time of day, time of year, hour angle limits, coordinates or any other relevant parameters;
- A description of any plans your team have to release data or data products into the public domain (particularly for projects requesting in excess of 100 hours of observation time);
- A description of your plans for processing data resulting from this proposal (particularly for projects requesting in excess of 100 hours of observation time).
- If you are submitting a continuation of a previous proposal, provide a detailed description of the results and status of prior efforts.

MWA Phase II compact configuration

As part of the phase 2 upgrade, the MWA is adding 128 new antenna tiles, 72 of which are in a regular hexagonal configuration. For 2016-B and the beginning of 2017-A, the array will be in its compact configuration (see <http://mwatelescope.org/telescope/phase-ii>).

MWA Phase II extended configuration

The remaining 54 tiles for the Phase II upgrade will be installed to form long baselines, hence the extended array will comprise the 54 new long baseline tiles plus 72 existing tiles from the non-core regions (also excluding the hex config tiles). The schedule aims to have the long baselines commissioned by mid 2017, hence 2017-B will begin in the extended configuration.

Details of the extended array configuration are available at:

<http://mwatelescope.org/telescope/phase-ii>