

***e*-MERLIN/VLBI National Facility**

CALL FOR *e*-MERLIN PROPOSALS - Cycle-1

e-MERLIN requests proposals from the international astronomical community for observations to be made during cycle-1. Proposals will be peer-reviewed by the *e*-MERLIN Time allocation Committee, following the procedures of the STFC Panel for Allocation of Telescope Time. Allocation will be made on the basis of scientific merit and technical feasibility alone. During this period approximately 50% of observing time is allocated to 12 large legacy projects and most of the remaining time will be allocated via PATT to standard proposals solicited prior to each observing semester.

e-MERLIN provides high resolution (40-150mas) and high sensitivity (~7-14 μ Jy in this Cycle-1) imaging at cm wavelengths as well as polarimetry, spectroscopy and astrometry. Cycle-1 observations will commence in September 2013, with some limitations in observing capabilities. See http://www.e-merlin.ac.uk/observe/call_cycle1.html

Developments during Cycle-0 and Cycle-1: Throughout Cycle-0 extensive test and commissioning activity has been undertaken. During semester Cycle 1, a limited amount of continued commissioning and development work may still take place for some modes of operation. This essential system work will take priority over PATT observations. The continuum bandwidth at C-band is currently limited to 512MHz, and this should be assumed in proposal requests. The hardware for 2 GHz bandwidth operations is being tested now and is expected to be available at all telescopes in late 2013. PATT observations made after this development may benefit from this extra bandwidth once it becomes available, however this will be offered on a shared-risk basis initially. All proposals should be justified assuming the current available bandwidth of 512MHz.

***e*-MERLIN Cycle-1 observations : September 2013 - January 2014
Deadline for Receipt of Proposals - 23:59:59 UT on 17th June 2013**

L-Band: 1.23GHz to 1.74GHz

C-Band: 4.5GHz to 7.5GHz

- The Lovell Telescope will be available for up to 15 days at L-Band and C-Band for during cycle-1 at the discretion of the University of Manchester. Proposers must make a detailed case for the inclusion of the Lovell telescope in their proposed observations.
- 1. Please note that K-Band observations and rapid frequency flexibility between L- and C-Band will not be available during cycle-1. Upgraded K-band (around 19-24 GHz) receivers will be available in future cycles.
- Proposers should consult the allocated *e*-MERLIN legacy programme to avoid conflicts (see notes below). In cases where PATT proposals directly replicate portions of allocated legacy projects, legacy projects will normally be given priority.
- During cycle-1 there are two VLBI sessions. Joint simultaneous *e*-MERLIN + EVN observations are not available in this Semester although associated but separate *e*-MERLIN and EVN proposals are of course allowed. EVN proposals should be submitted to the EVN Programme Committee - details for proposing for EVN time can be found via: <http://www.evlbi.org>

Proposals should be submitted via the *e*-MERLIN Web-based Northstar Proposal Tool. The proposal tool will be open for proposal submissions from May 22nd 2013.

The system parameters for observation of a continuum source in optimum conditions are:-

	1.23-1.74 GHz (L-band)	4.3-7.5 GHz (C-band)	
Maximum angular resolution	~150	~40	(milliarcsec)
RMS level for 12 hr on source	~14/7**	~13/7**	(μ Jy/bm)
Maximum bandwidth/polarization	512	512	(MHz)

See notes below:

- The sensitivities quoted are under ideal conditions and assume no contribution from confusion or dynamic range limitations. So far, from observations of 12-24 hrs duration have reached sensitivities within 20 % of the nominal values at L-band, with and without the Lovell Telescope.
- ** The use of the Lovell telescope at L-Band, and at C-Band with the new receiver systems reduces the 12 hour rms noise level in the central part of the field of view by ~50% compared with the array not including the Lovell Telescope.
- Frequency switching: Due to commissioning commitments in cycle-1, rapid cycling between L- and C-Band will not be permitted. Within C-Band, frequency changes on time-scales of >2 hour will be possible. However, proposers should note that such programmes (e.g. cycling between observing bands 4.5-5.0GHz and 6.5-7.0GHz within a single observing run) will result in significant additional calibration overheads. Proposals with frequency changes faster than once every 2hrs will not be permitted.
- Details of available spectral line configurations are available at <http://www.e-merlin.ac.uk/observe/cycle1.html>.
- Proposers should take careful note of the observations allocated to the *e*-MERLIN legacy groups (see <http://www.e-merlin.ac.uk/legacy/>). The *e*-MERLIN Legacy programmes will run concurrently with PATT observations from cycle-1 for up to 5 semesters. In cases where PATT proposals directly replicate portions of allocated legacy projects, legacy projects will normally be given priority. All *e*-MERLIN legacy proposal are available at <http://www.e-merlin.ac.uk/legacy/>. Proposers requiring further information should contact emerlin@jb.man.ac.uk for clarification well in advance of proposal submission.
- Access to *e*-MERLIN for Scientists from EU Countries: *e*-MERLIN is one of the participating institutes in the RadioNet project from which transnational access (TNA) within the EU to existing observing facilities is financially supported. TNA support envisaged for the RadioNet3 provision includes travel reimbursement for data reduction visits to the *e*-MERLIN support facility in JBCA Manchester for TNA-enabled programmes.

e-MERLIN/VLBI National Facility, The University of Manchester,
Jodrell Bank Observatory,
Macclesfield, Cheshire SK11 9DL,
United Kingdom
Telephone: +44 (0)161 306 9400,
Email: emerlin@jb.man.ac.uk