EVN policy on Targets of Opportunity

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PREAMBLE

1. Targets of opportunity (ToO) are defined to be extremely rare and/or unpredictable events where there is a limited opportunity to make scientifically important observations. This limited opportunity and the potential scientific impact of the observations together constitute the justification for an exceptional response to a ToO proposal, by-passing the normal EVN review and scheduling procedures.

2. Normal EVN observations take place three times per year in 3-week long observing sessions, whose dates are decided ∼12 months in advance by the participating observatories. Individual projects are scheduled within these reserved periods ∼2 months before the sessions - they are not scheduled "dynamically". A critical aspect of a ToO proposal is whether (a) the observations can be accommodated within these sessions (or within one of the more frequent EVN eVLBI runs), or (b) whether EVN telescopes have to be organized in an *ad hoc* way for the observations, outside any of the times reserved for VLBI observations at the EVN observatories. Proposers should be aware that most EVN observatories are fully committed to other programs outside of the sessions (especially at the larger telescopes) and it may thus be very difficult to organize additional *ad hoc* VLBI time at all EVN telescopes at short notice.

3. ToO observations require a rapid response from the PC Chair (and for case (b) EVN Directors and telescope schedulers) and may involve over-riding agreed programmes at each of the telescopes concerned. Response to a proposed ToO must thus be "success oriented"; observing time will only be granted if the available resources are likely to meet the science goals of the experiment. The active involvement by the PI in helping to organize the observations may also contribute to the success of the observations.

4. EVN resources are sufficiently scarce that, in the event that two proposals for a ToO observation are adjudged equivalent, the EVN may require collaboration.

SUBMITTING A PROPOSAL

5. The proposer (PI) must normally submit a proposal to the Chair of the EVNPC, the Directors and Schedulers of all the individual EVN telescopes requested, with copies to the EVN Scheduler, the Head of Science Operations and Support at JIVE and the Chair of the EVN CBD. All the relevant email addresses can be found at:

http://www.evlbi.org/proposals/prop.html

The exception (case (a)) is when the PI specifically requests observing time within an EVN Session or eVLBI run for which dates have already been advertized, in which case the proposal need only be sent to the Chair of the EVNPC, with copies to the EVN Scheduler and the Head of Science Operations and Support at JIVE.

6. The proposal must address clearly and concisely the **scientific goals** of the observation, explaining **why the EVN** is important, and giving the **telescopes** required, the observing **frequency** and the desired **timescale for scheduling**. Given that not all requested telescopes may be available (since the ToO may involve each Director over-riding other scheduled programs), the PI should specify any **key telescopes** which are essential and also a **minimum number** which would make the observation worthwhile. The proposal should include a **range of dates**, with UT time intervals, which the PI judges would be appropriate for the observation.

PROPOSAL REVIEW

7. The PC Chair (or deputy in the PC) will review the proposal (perhaps after consultation with individual PC members if time permits) and send his/her opinion to the PI, and other proposal recipients (which for case (b) will include the Directors of all observatories involved). The Chair will also consult with the EVN Scheduler to decide whether or not the observations can indeed be made within an EVN session or scheduled EVN eVLBI run, and inform the Directors accordingly if necessary.

8. For case (b) the observatory Directors and Schedulers will also review the proposal and, if necessary, decide in principle whether or not to authorize the observations, and also investigate whether a suitable observing date might be found. (Some observatories may give unconditional approval, and some may make it dependent on the PC Chair's opinion.) The Directors should reply to the PC Chair. If a Director agrees in principle to give additional time, he/she should also name a contact person at the observatory (possibly the telescope scheduler or VLBI friend) who will be available for negotiating an observing date and organizing logistics at that observatory.

9. The EVN Scheduler and the Head of Science Operations and Support at JIVE should also give any relevent input on the availability of EVN resources (correlator, disk supply, observing time...) to the PC Chair.

10. The PC Chair may also consult with the CBD Chair if a decision needs to be made regarding competing proposals of equal merit.

11. Finally, the PC Chair should either recommend that an attempt should be made to schedule the ToO observations, or that the request be turned down, on the basis of the Directors' responses, the scientific case or the non-availabilty of resources.

ARRANGING THE OBSERVATIONS

12. A number of things need to happen quickly following a positive response by the PC Chair to a ToO proposal:

a) arrange an observing date
b) organize manpower at observatories
c) organize disk supply, or organize manpower at the correlator for setting up an eVLBI run
d) make observing schedule

Given that a ToO proposal can, in principle, be approved at any time, there is no guarantee that all the key people normally associated with setting up a VLBI observation will be available. Therefore, the PI may need to play an active role (with assistance from the EVN Scheduler, the Head of Science Operations and Support at JIVE or the PC Chair if they are available) in negotiating a date for the observations with the named observatory contacts, ensuring that any stipulations made by the PC Chair (minimum/maximum number of telescopes, frequency, length of time, etc) are followed.

13. The PI, with the assistance of the same group, must assess the feasibility of using either disk recording or eVLBI (or some combination of both). This may depend on the supply of disks at the observatories and the timescale for shipping supplies, the availability of the correlator on the agreed observing date, the current technical capabilities and limitations of disk and eVLBI, and the speed with which the correlation is desired.