# Activities of East Asia VLBI network

**H.Kobayashi[1], Z.-Q.Shen[2], H. Minh[3]**

(***(1): National Astronomical Observatory of Japan, (2): Shanghai Astronomy Observatory, (3): Korea Astronomy and Space Science Institute***

Abstract

The consortium of East Asia VLBI network was established on November of 2004. And the committee members are elected from China, Japan and Korea. At the meeting of the millimeter VLBI in 2003, which was held on Shanghai, a preparation committee was established to organize the consortium committee. The aims of this consortium are below.

A. Joint VLBI observations in East Asia

The Committee should make some recommendations to perform VLBI experiments with the existing facilities in each country, based on both scientific interests and technical/engineering readiness. Japan has more than ten VLBI stations already. And China has two VLBI stations, which is joining the European VLBI Network. Also China has a plan to build two stations. And Korea has one VLBI station and is building new four VLBI stations, which are called as Korean VLBI Network (KVN). So East Asia area has the densest distribution of VLBI stations. It has a large possibility for VLBI observations. In particular, the phase referencing VLBI observation and the mm/sub-mm VLBI are important key words of this array.

B. Promotion of VLBI System Developments

VLBI systems have developed dramatically over the last few years, e.g., e-VLBI, correlators, s sampling systems, space VLBI, etc. For collaborative observations, we have to think about the compatibility between the VLBI systems adopted by individual countries/observatories. The consortium committee must survey the development plans in all countries and institutes and try to ensure that the systems have the necessary degree of compatibility for future collaborations, taking into account worldwide trends. Furthermore, it is requested to coordinate discussions regarding the prospect for the collaborative VLBI networks, including correlation and data processing facilities.

C. Set-up of a VLBI Data and Analysis Center (tentatively, VDAC)

One main subject of the VDAC would be how to correlate data of the VLBI networks and experiments related to the member countries and those of outside our networks or telescopes. The Korean group is planning to build a correlator, and VERA needs to upgrade the existing Mitaka correlator for domestic observations. The VSOP-2 project also assumes a new correlator which could be shared with ground-based VLBI networks. The Committee is requested to coordinate discussions for the possible shape of correlation facilities in the consortium as a high priority.

Actually we have started the coordination observations with Japan and China with nine stations. As the first attempt, feasibility check observations with around ten station at 8GHz and 22GHz was carried out. We will show some results of them.