

IAU South West Asian ROAD

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Abstract. Armenia is hosting the IAU South West Asian (SWA) Regional Office of Astronomy for Development (ROAD). It is a county of ancient astronomy and is also rich in modern astronomical facilities and infrastructures, hence may successfully serve as a regional center for various activities. Byurakan Astrophysical Observatory (BAO) has 2.6m and 1m Schmidt, as well as a number of smaller telescopes that are an observational basis for joint projects and collaborations. Armenian Virtual Observatory (ArVO) is hosting astronomical databases, such as the Digitized First Byurakan Survey (DFBS) and may also serve as a basis for development of VO structures in this region. Recently we have conducted a number of new activities; a meeting on “Relation of Astronomy to other Sciences, Culture and Society” (RASCS) was organized by BAO and Armenian Astronomical Society (ArAS) in Oct 2014 in Byurakan. Activities related to Archaeoastronomy and Astronomy in Culture (AAC) were initiated as well. Discussions on future Armenian-Iranian collaboration in astronomy were carried out, including an Armenian-Iranian Astronomical Workshop held in Oct 2015 in Byurakan. Similar workshops have been carried out between BAO and Abastumani Astronomical Observatory (AbAO, Georgia) since 1974.

Keywords. telescopes, astronomical data bases: miscellaneous, miscellaneous

Armenia will be hosting an IAU Regional Office of Astronomy for Development (ROAD), namely in the South West Asian (SWA) region. The agreement was signed between IAU and Byurakan Astrophysical Observatory (BAO) during the IAU General Assembly in August 2015 in Honolulu, Hawaii, USA.

The history of astronomy in Armenia goes back to very old ages. Since ancient times Armenians accumulated astronomical knowledge and have left this heritage in the forms of rock art, ancient observatories, calendars and chronology, historical records of astronomical events, medieval sky maps, astronomical terms, etc.

Nowadays Armenia has developed astronomy as well. Being a small country by its territory and population, it has high activity in astronomy at all levels: professional, educational and public. Armenia is situated in a region, where efforts are needed to develop and promote astronomical education and knowledge. Armenia is a reliable centre for astronomy development in the Southwest Asian region, involving the South Caucasus countries (Armenia, Georgia and Azerbaijan), Iran, Turkey and Israel, where efforts are being made to develop astronomy. In addition, Armenia also is one of the former Soviet Union republics and has tight relations to other such countries, including South Caucasus, Russia, Ukraine and Central Asian states. The latter may also join SWA ROAD. At last, Armenia is regarded by many European countries as a link for astronomical contacts between Europe and East in frame of the European Eastern Partnership (EaP) program.

The modern Armenian astronomy has an international recognition due to a number of reasons:

- Byurakan Astrophysical Observatory (BAO) is one of the important astronomical centres in the Middle East,

- discoveries and achievements by outstanding scientist, former IAU and ICSU President Viktor Ambartsumian and his famous colleagues are well known,
- the largest in the region 2.6m and one of the largest in the world 1m Schmidt telescopes,
- many important international meetings, including six IAU ones and the European JENAM-2007,
- recently established series of Byurakan International Summer Schools (BISS), where the regional students train and get experience,
- active international collaboration with a number of countries, such as France, Germany, Italy, Russia, USA, and others,
- international PhD program that has awarded scientific degrees to astronomers from Hungary, Bulgaria, Georgia, Azerbaijan, Uzbekistan, Jordan, etc.,
- famous Byurakan surveys and one of the largest astronomical spectroscopic databases, which is included in UNESCO “Memory of the World” international register,
- Armenian Virtual Observatory, the only such project in the Middle East and one of 20 members of IVOA,
- one of the major international prizes in astronomy (USD 500,000), Viktor Ambartsumian International Prize,
- Galileo Teachers Training Program (GTTP) and successful participation of Armenian pupils in International Astronomical Olympiads.

Recently we have conducted a number of new activities related to astronomy for development. A meeting on “Relation of Astronomy to other Sciences, Culture and Society” (RASCs) was organized by BAO and Armenian Astronomical Society (ArAS) in October 2014 in Byurakan. Astronomers, philosophers, biologists, historians, archaeologists, philologists, linguists, artists, and other specialists took part in the meeting. The meeting was important from the point of view of increasing the visibility of astronomy as a leader in interdisciplinary and multidisciplinary sciences.

Activities related to Archaeoastronomy and Astronomy in Culture (AAC), as encouraged by a number of international organizations (UNESCO, IAU, ISAAC, SEAC, etc.), were initiated as well. Armenia is especially rich in astronomical heritage issues and this area may strongly support the ROAD project.

We have already put efforts on strengthening the collaboration with the neighboring countries. A number of research projects have been accomplished between Armenian and Georgian astronomers and many Georgian astronomers have defended their Ph.D. theses in BAO. Armenian-Georgian astronomical colloquia have been organized since 1974 and in total 14 meetings were held, both in Byurakan and Abastumani observatories. In 2013, the last meeting was organized in Byurakan.

The first Armenian-Iranian Astronomical Workshop was organized in October 2015 to strengthen our scientific relations and establish new collaboration. We plan to organize such workshops on annual basis, succeeding each other one in Armenia and one in Iran. The collaboration will include several forms: collaborative research projects; stays of Armenian scientists at Iranian institutions and stays of Iranian scientists at Armenian institutions for joint research work; organization of joint meetings; BISS with invitation of Iranian students; observations on joint projects; collaboration between VOs; joint archaeoastronomical and cultural studies.

More countries may be involved in our ROAD as well, such as Turkey, Israel, Pakistan, Afghanistan, and Central Asian states. This will be of mutual benefit both for our ROAD and these countries.