

The South-Eastern Branch of the European Astronomical Society - a regional network for the developing countries

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Of the 189 countries that are Member States of the United Nations, "nearly 100 have professional or amateur astronomical organizations. Only about 60 of these countries, however, are sufficiently involved in astronomy to belong to the International Astronomical Union. Only about 20 countries, representing 15% of the world's population, have access to the full range of astronomical facilities and information. This does not include most of the Eastern European, Baltic, and former countries of the Soviet Union, whose fragile economies keep them from achieving their full potential, despite the excellence of their astronomical heritage and education."
(John R. Percy, IAU, Mercury, Vol. 24, 1995, No. 2, p.15)

Contemporary astronomy is maybe one of the sciences which have undergone one of the most important changes in the last decades. The progress of technology, from the great ground telescopes to the ever more numerous space missions, ever more advanced calculation techniques have allowed an improvement of the knowledge about the universe, undreamed of a little while ago. Hence, an incredible progress and an ever more difficult need of adaptation to the new problems. And these are not only scientific ones. It is sooner a vicious circle out of which one can hardly escape without considerable efforts of the scientists and even of the entire society. It is in fact a rapid, unprecedented, human and financial adaptation to the new.

If this is the general world situation, that of the post communist countries, of the ones in South-Eastern Europe is the more special.

We shall refer in the following, only to the latter ones, namely to Bulgaria, Romania, Serbia and Montenegro.

We have generally the same problems: a poor financing, the massive emigration of the young people, a difficult reintegration in the world circuit of research etc. But we have about the same area of interest, as well, not to mention even the same area of observed sky in about the same hours. As nobody understands better than us our own situation and as, before applying for exterior support of any kind (human or financial), we must find the solutions ourselves first, we have decided to organize the South-Eastern Branch of the European Astronomical Society in the autumn of 2000, to which belong, besides our countries, also FRY Macedonia, Greece, Ukraine and lately Turkey.

Naturally, there might have been another solution (for instance, a regional society, such as the Balkan Society of Physics), but we have thought that the solution we have adopted is the only valid one. There are many reasons for this: Europe wants to be more united than ever and each one of our countries has the right to become, sooner or later, a full member of this union. Besides, there already is a European Astronomical Society, set up in 1990 exactly in order to unite Western Europe with the countries that have just come out of communism. Consequently, our branch is only a grouping of that Society, with the characteristics given by our European location.

Firstly, we have tried that this Branch should become a debate forum. To this end we have met several times, either on the occasion of scientific reunions or of some schools for young astronomers, or simply within restricted reunions in which only 2-3 representatives for each country participated, where we tried to identify both the causes and the solutions for our present situation.

Naturally, the most important ones were those with a regional scientific character: Present and Perspectives, held in Bucharest between 24 and 28 April 2001 (proceedings published), and the second regional meeting of the South-Eastern Branch of the European Astronomical Society, "New Results in Stellar Physics", held in Timisoara (Romania) between 3 and 5 October 2002. To this we should also add the second Astronomy Summer School for young people from South-Eastern Europe (SEE), hosted by Belogradchik Observatory (Bulgaria), in the period July 4th – 10th, 2003. The school offered lectures, seminars, poster session and a competition of scientific project proposals, whose winners observed with the 60 cm Cassegrain telescope during the school.

Equally important were the restricted reunions, the last one of which took place in September 2003, on the occasion of the Euroscience reunion in Bucharest, where both the difficulties and the solutions were debated.

One of this was the setting up of a scientific council of the Branch, joining directors and the deputy directors of all institutes and which was to meet at least once a year. Naturally, it is a consulting council, which may become functional when regional projects are set up or scientific reunions or regional summer school are organized. The Unesco-ROSTE are helping us to organize this year the first two meetings of the scientific council, which will discuss the main topics of common interest, as:

- development of observing facilities. In the first place here we should mention a common support to the project of modernization and upgrade of the Rozhen observatory, but we have to approach the situation of others observatoires, as those from Romania and Serbia & Muntenegro.

- integration into the European structures (more specifically ESO, A&A, FP6 et al., EAS, EUROSCIENCE, bilateral and multilateral agreements with individual EU member countries/institutes).

- regional collaboration (the last one concerns "Astronomy and World heritage", new topic of large interest, just discussed by a group of experts by Unesco-Roste, in Venice).

- diaspora (collaboration in research, access to the facilities, visits, seminars, lectures, publishing, scientific literature).

In the following we discuss in more detail some of the above mentioned activities.

A suggested solution is for instance that which refers to the young people gone to other world research institutes. It refers to setting up contracts of associate researchers with them, obviously with the approval of the department where they are working. Thus, the connections between them and the institutes they left are closer to the benefit of both parties. The young people continue to feel connected with the country they left, can visit the institutes at home every time they return home and they can even represent them on the occasion of international reunions (for instance, one of these young people participated in a European reunion in this quality although he has been working for some time in the U.S.A.).

They will sign and present their papers on the basis of their double affiliation. At the same time, through them, the institutes of our countries can establish a closer connection with the modern, research laboratories where their young colleagues work, and even set up research contracts with them. The institutes from our countries will keep them informed on the scientific life at home and will facilitate their return home when they decide to do so.

Another work method is the setting up of regional projects. A proposal for a project for Frame Program 6 of the European Union was attempted (in the spring of 2003), unsuccessfully, given its extremely restrictive range. At present a regional project is under way on the capitalization of the cultural inheritance from South-Eastern Europe, which exists in the archaeoastronomy sites.

An extremely important common accomplishment refers to the improvement of the material basis. At present, in any of our countries, it is extremely difficult to obtain the financing necessary for the purchasing of a performing instrument for competitive scientific research on a world level, when only a telescope of class 1, used only for stellar photometry costs over 1 million euros.

The only important instrument in the region is that of Rozhen (Bulgaria), only that the two decades elapsed since its setting up left their mark and its upgrading would cost at least 800,000 euros. The only solution left is the concentration of the efforts for its upgrading, at least for a partial one, through its

endowment with a performing CCD camera. The instrument was put at the disposal of the researchers of the region.

Last, but not least, there is the problem of training the future astronomers, that of the education of the young people in general, through astronomy included. A difficult job, especially if we take into accounts that less and less importance is paid in schools to astronomy due to the cut of class numbers and of the competition with new fields, still unapproached.

Thus, the exchange of experience between our countries, for instance in the field of international olympics preparation, has proved beneficial. We hope to be able to publish soon a handbook of problems presented at such olympics, obviously in English, so that the participants will have to master this language. There are already a number of such problems gathered. Naturally, there remains to finish the job, to draw up the book and to find the necessary financing.

Of course, there would be still many things to say, but we stop here with this short review of the common work methods in countries with common problems. We have not presented them as a model to be followed, but as a range of solutions and difficulties, which can attract other partners in this network, with the hope of surpassing as soon as possible our difficulties and of reintegrating our research in the world circuit.