

**PROPOSITION FOR FOUNDING OF EDUCATIONAL OFFICE OF
THE SUB-REGIONAL EUROPEAN ASTRONOMICAL COMMITTEE**

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Abstract. We propose to found Balkan Educational Office in Astronomy (BEOA) in the framework of the Sub-Regional European Astronomical Committee. Its main goals will be to unite the efforts of teachers and researchers to raise the student' and scholar' attention to learning astronomy, to found Balkan Schools' Observatory and to coordinate the activities of all educational and scientific institutions for popularization of the astronomy. The main activities of the BEOA will be: creation of new educational resources; organization of workshops and training courses for teachers in astronomy; organization of Balkan competitions and summers schools in astronomy for school students and for university students; organization of astronomical expeditions, festivals, exhibitions; etc. The BEOA will work in close relation with the European Association for Astronomy Education (EAAE).

1. INTRODUCTION

Astronomy is the oldest of all sciences. Its cultural and philosophical role is undisputed. Studying the Universe is a way of searching for our own origins, learning to situate ourselves within cosmic infinity and developing a sense for the beauty and fragility of our Earth. It equally allows us to keep a critical approach towards irrational pseudo-sciences.

Moreover the Astronomy is extremely popular. There is a great public interest to some astronomical events as eclipses, meteor showers, passages, space missions, as well as to popular magazines and TV programs about astronomy. The Astronomy is the perfect way to arouse the enthusiasm and interest of all pupils, who tend to be bored with more classical subject matters. One expects that the improving of the formal and informal education in astronomy at schools, universities and scientific departments will attract young people in the field of natural sciences and technologies.

Realizing all these arguments the European South observatory (ESO) created own Educational Office as part of the Education and Public Outreach Department. Its aim was to provide support of astronomy and astrophysics education, especially at the high-school level (teaching materials, courses for teachers and specific educational projects, etc.). This Educational Office works in collaboration with partners such as

the European Association for Astronomy Education (EAAE), the EIROforum, the European Commission and others.

By analogy with the ESO Educational Office, we propose to found Balkan Educational Office in Astronomy (BEOA) in the framework of Sub-regional European Astronomical Committee (SREAC).

2. GOALS OF BEOA

The main goals of the BEOA will be to unite the efforts of teachers and researchers to raise the student' and scholar' attention to learning astronomy as well as to coordinate the activities of all educational and scientific institutions for popularization of the astronomy.

The more detailed formulations of these main goals of BEOA are:

(a) to establish close relations and collaborations between the astronomers and teachers in astronomy from the Balkan countries, most of which are not members of EAAE;

(b) to develop and to promote the teaching of Astronomy at all levels in the broadest way possible, i.e. to provide coordinated representation of the astronomy education to the general public and national governments as well as to organize regional discussions and forums about the astronomy education;

(c) to provide possibilities to get experiences in astronomy in neighbor countries;

(d) to encourage creation of regional teams for work on educational projects;

(e) to found Balkan Schools' Observatory as a classroom of astronomy, i.e. to give an opportunity for the high-school and university's students to get satisfaction of carrying their own observations on-line, just sitting home at his/her PC and thus taking part in real scientific discoveries;

(f) to show the importance and fascination of science to a wide audience by cooperating on large-scale outreach activities;

(g) to motivate and encourage young people to explore scientific subjects, and to show them that science is a rewarding career by promoting inspiring science teaching;

(h) to organize the Balkan pupils to attend the international observational campaigns of different astronomic objects and events, i.e. to provide insight into current research activities in astronomy.

3. ACTIVITIES OF BEOA

In order to get its goals the BEOA should realize a wide spectrum of activities. According to us some of them are:

(1) Founding of Balkan portal for education in astronomy containing national curricula in astronomy at all levels and Internet forum "The professional astronomer answers to student questions";

(2) Organizing of Balkan workshops and training courses for teachers in astronomy as well as regional conferences on astronomy education;

(3) Creation of regional teams of researchers and teachers for creation teaching materials and exercises in astronomy (learning scenarios, practical exercises, images, presentations, etc.) on the basis of observations from the regional observatories as well as for work on projects connected with the education in astronomy;

- (4) Organizing of Balkan competitions, olympiads and summer schools in astronomy for school students and for university students;
- (5) Organizing of astronomical expeditions connected with observations of eclipses, sightseeing of archaeoastronomical places, large telescopes, etc.;
- (6) Publishing of e-bulletin with information on the education in astronomy and Balkan journal "Education in astronomy";
- (7) Organizing of Balkan Schools' Observatory on the basis of the existed small telescopes in the region and achievements of past and present projects (as educational projects Discovery Space and COSMOS, scientific projects as SMARTNET, etc.);
- (8) Coordination the using of the regional infrastructures, facilities, resources, programmes and expertise of the Balkan astronomical institutions for astronomy education and popularization of the astronomy;
- (9) Organizing of annual Balkan festivals in astronomy "Send your epistle to the stars" (of type of European "Physics on stage");
- (10) Organizing of annual itinerant Balkan exhibitions of astronomic images, equipment, etc.

As a result of all these activities we expect to accelerate the unification of the education in astronomy of the Balkan countries.

4. MANAGEMENT AND HEADQUARTERS OF BEOA

We consider that collective members of BEOA may be the national astronomical association of the Balkan countries. All of them will have national representatives in the BEOA Council. The regional collaboration may be based on a Charter, which was officially signed by Presidents of the Balkan nongovernment astronomical organizations. The management of the BEOA activities may be done on the basis of Annual work program.

The BEOA Council will work in close relation with the European Association for Astronomy Education (EAAE) and will search for financial support from UNESCO, ESO, etc.

We propose the Astronomical Center of the Shumen University to be a headquarters of BEOA due to several reasons.

(a) Shumen University is founded in a kind of town, which has a significant contribution in the education developing in Bulgaria, i.e. it is a University of Tradition. Shumen University is a part of European Association of Universities and has its positions in Bulgarian and European educational system as University of Tolerance: student of different ethnical groups study here, such as Turkish, Bulgarians of minority and of Besarabian origin from Republic of Moldova, Macedonia, Ukraine, etc.

(b) The Astronomical Center of the Shumen University has a national and international recognition as an important institution in Bulgaria for researches and education in astronomy. The education of teachers in physics and astronomy has almost 40 years tradition. From the academic 2004/2005 year there is a speciality Astronomy (bachelors' degree) with accreditation both in the full timed form and the distant form of education.

(c) The team of the Astronomical Center of the Shumen University has a big experience in preparing and realization of many educational and research projects (COSMOS, Student practice in Astronomy, SMARTNET, etc).

5. CONCLUSION

The intention is the BEOA to create an active and beneficial connection between professional astronomers from the universities and the other scientific and educational institutions as well as between the students and the teachers. It should provide more possibilities for expression of the Balkan pupils, which are interested in astronomy (especially to those from the small towns) by participation in competitions, olympiads, exhibitions, festivals, etc. Thus we expect to increase the interest of the young people to astronomy as well as the level of education in Astronomy.

This aim is very important because it is well known that due to the bad perspectives to find a job, less and less students choose the field of the astronomy and the natural sciences to develop their careers. We hope that the joining of the efforts of many institutions will allow these negative tendencies to be overcome and will stimulate young people to realize themselves professionally in the area of astronomy.

We do believe that the established Balkan Schools' Observatory will implement various aims and mission.

Besides these educational goals of BEOA, the cross-border cooperative teams working on regional or European projects will contribute for improving the intercultural relations of the Balkan countries. The cross-border learning and shared knowledge in cross-border groups will make the next step for unification of the education in astronomy as well as will ensure successful communication and collaboration of the teachers and scholars of the Balkan countries.

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