

children and for families.

- In Spain, the new reformed curriculum for high schools contains a compulsory subject about astronomy in the field of Natural Sciences, and there is also an optional astronomy workshop. Different regional, national and international conferences have been held.

- Poland has hosted two recent science education conferences and has opened a planetarium in the city of Torun.

- Bulgaria now has a separate astronomy course in grade 11 high school.

- In Rumania, astronomy has been reintroduced as a separate topic in high school and a competition has been open for writing new text books.

- In South Africa, within the turmoil of political events, astronomy is seen as an inexpensive way to "turn on" a multiracial population to the cultural and economic benefit of science.

- In Peru, the Boletín Informativo Seminario de Astronomia y Astrofisica for 1993 gives an impressive list of activities.

- In Malaysia, a new planetarium complex has been opened in Kuala Lumpur.

It was not possible to mention here all that is being done everywhere. How astronomy education is developing today worldwide, at school or in science centres, using new technology and new media, is discussed in the following contributions.

## IAU PROGRAMS AND PROJECTS IN DEVELOPING COUNTRIES

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Projects for astronomically developing countries. The report on Commission 46 (Reports on Astronomy Vol. XXIIA, pp. 535-538, 1994) summarizes activities through 1993. Changes since then:

International Schools for Young Astronomers (ISYA): The 20th ISYA was held in Pune, India during January 3 to 21, 1994. There were 10 participants from India and 25 from 12 other countries. See Newsletter #39 (June 1994) of Commission 46 or the next IAU Bulletin. The 21st ISYA will be in Egypt during September 18 through October 8, 1994. There will be 20 participants from Egypt and 14 from 14 other countries (including 5 in Africa). The 22nd ISYA is likely to be in Brazil during 1995. We welcome additional applications for ISYA, but it should be understood that an ISYA is a significant commitment; the host country must pay for rooms and meals. The IAU provides travel cost, and its influence.

Visiting Lecturers Project (VLP): The VLP for Paraguay has been completed by

the visit of Dr. Michele Bossi (Milano, Italy) giving a course (lectures and observations) on pulsating stars during April - June 1994. Although several students from Peru and Paraguay are now working/ studying elsewhere, the longer-term presence of astronomy in these two VLP countries is not yet secure. Commission 46 is proposing to the IAU Executive Committee that the VLP be continued as a more flexible program, Teaching for Astronomy Development (TAD), which takes into account the differing needs of various countries and allows some support of advanced students who are selected to study abroad and then return to their country. If approved, the new program will be announced widely. In common with the VLP, the goal is to enhance astronomy at selected host institutions on a long-term basis, using the influence and some financial support of the IAU.

## THE WORLDWIDE DEVELOPMENT OF ASTRONOMY

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The IAU Working Group for the Worldwide Development of Astronomy and Commission 46 have both aims and methods in common. The Workshop for secondary school teachers, organized in Pune, India, in connection with the 1993 IAU Regional Meeting, was similar in concept to many meetings organized by Commission 46 at previous General Assemblies, and benefitted greatly from the willing cooperation of many members of the Commission. I hope that such workshops will become regular features of Regional Meetings, and that Commission 46- which has the necessary experience and expertise- will take the lead in organizing them.

The Working Group, however, is concerned about the whole state of astronomy in different parts of the world, not just the teaching of astronomy- basic though that is. In the last twelve months I have travelled extensively, and my impressions of astronomy in various countries, while personal and incomplete, are first-hand. It is instructive to look at a map of the world on which the intensity of astronomical activity is portrayed. A Central American astronomer, M.C. Pineda de Carias, showed such a map at the UN/ESA Workshop in Nigeria last October. She simply coloured red all those countries with IAU members. I have updated her map and tried to introduce more detail by colour-coding for the number of IAU members and distinguishing between adhering and non-adhering countries. Even this more detailed map is over-simplified and therefore open to some objections; but however the map is constructed, it will clearly show that astronomers living in Europe (especially the western half), North America, and Japan are highly privileged. First, we have many colleagues whom we can meet fairly often. Second, despite our complaints about budget cutbacks, we have access to modern equipment, good