

NATIONAL PROGRAM FOR POPULARIZATION OF ASTRONOMY AT SCHOOLS (PRONDAE)

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RESUMEN

A fin de proyectar a nivel nacional la semilla de la astronomía, se ha implementado un programa divulgativo que tiene por objeto preparar multiplicadores en diferentes ciudades de Venezuela a fin de que lleven talleres de astronomía a nivel de educación básica a los docentes interesados en los diferentes puntos del país. Para ello se ha invitado a participar a los aficionados y docentes conocedores de astronomía para que se formen en dichos talleres y los reproduzcan en sus ciudades de origen. Se considera importante exponer esta iniciativa a fin de compartir y recibir opiniones de los participantes internacionales.

ABSTRACT

With the goal to project the astronomy seed around all the country, we have implemented a special program with the objective of training instructors in several cities of Venezuela to conduct astronomy workshops specially devoted to the interested teachers of elementary education. In consequence, we have invited amateur astronomers and teachers with notions of astronomy to get trained and then to reproduce such astronomy workshops in their own cities. We consider important to expose this idea to obtain a feedback from the participants of this meeting.

Key Words: education — outreach

1. INTRODUCTION

The Centro de Investigaciones de Astronomía (CIDA), in its eagerness to take astronomy to all the country, is developing the “Programa Nacional de Divulgación Astronómica en Escuelas” (ProNDAE) (National Program for Popularization of Astronomy at Schools). This program consists in a serie of workshops with the objective of training teachers to bring in their classroom different topics of general astronomy, as well as, to wake up and to channel possible scientific vocation in infants. The program begins with a workshop on general astronomy, devoted to elementary school teachers. The workshop consists, during two days, in talks and group dynamics with special emphasis in the practical aspect: games, manual works, pedagogical dynamics, etc. All of this with the purpose of training teachers in how to introduce the astronomical themes in the classroom. These workshops have been given initially in Mérida, with the participation of CIDA, the Network of Schools Associated to UNESCO, and the UNAWA (Universe Awareness) program of UNESCO. In that way, we are proud to have created the first international UNAWA-CIDA network of popularization of astronomy, pioneer in this kind of initiative.

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2. PROGRAM IMPLEMENTATION

During 2007, we developed and tested the program and we began to expand around the country. At first we prepared an astronomy workshop to elementary and pre-school teachers (TADEBI), we also prepared a basic astronomy manual with 90 pages with all the topics to be covered during the workshop, and a “Classroom Manual” with 24 practical classes of astronomy for children. All of these with the scope to give teachers a tool to quickly implement in their classrooms the astronomy knowledge learned in the workshops. We made special emphasis in the practical aspect with simple experiments, demonstrations, models to put together, outdoor activities, etc. We also freely give to teachers a CD with the mentioned manuals, hundreds of astronomical images, videos, astronomical software, etc., in order to give them audiovisual resources to help to bring astronomy in their classrooms.

On June 2007, we conducted the CIDA-UNAWA workshop to instructors formation in which we certified 30 teachers and amateur astronomers from several places of Venezuela. Now, they have the mission, in a short term to conduct the workshops in their own places. At this time we have teachers from Mérida, Barinas, Lara, Monagas, Nueva Esparta, and shortly will join us a group from Táchira,

Zulia, Distrito Capital and Carabobo. In this sense, we have requested the collaboration of different institutions and organizations related with education and science in all the cities in order to bring there periodically the CIDA-UNAWA workshops to the teachers interested in science and particularly in astronomy.

The second phase of the program consists in the support and the monitoring to the astronomical activity of the teachers. To do this, a certified instructor will give an astronomical talk to the schools which request it, and also, in some cases it can be possible to bring a telescope to solar, lunar or planetary ob-

servations with the scope of motivate children to learn astronomy.

In 2007, we carried out 9 workshops in different states and we are planning to expand this number in Mérida and in other places of Venezuela. Also, the CIDA-UNAWA certified instructors are ready to conduct the astronomy workshops in Monagas and Lara with the help of CIDA, and regional FUNDACITES and authorities.

In that way CIDA promotes de popularization of science and technology in the country through the most integrator science: Astronomy.