

Conclusions of the NASE course in Malang, Indonesia

July 2016

The WG2 was developed with the participation of teachers and members of astronomy clubs.

In NASE-Indonesia the presence of the rector of the University Ma Chung, Dr Chatief Kunjaya, astronome who also acted as translator, was deeply appreciated.

As usually happens, was commented that in Indonesia Astronomy is not a separate subject in the curriculum, but it was, when it was included in the curriculum in 1984; there is discontinuity in this issue. However, its contents are contained in various spaces of secondary education of students. The teachers agreed that in general they are not well trained in this discipline, but the course provided them materials to introduce the subject un classroom. In addition, they find that the contents may also be useful to connect school activities with those of the amateur groups.

Contrary to what happens in most countries, where astronomy is a specialization after pursue the career of Physics, in Indonesia there is the career of Astronomy at University level (as for example in Argentina) This makes even more necessary training midlevel teacher, as the Astronomy is a possible choice for students.

Several participants share with the people at the WG several contributions linked to their culture, commenting how astronomy is present in their daily lives. In WG1, Dr. Tomita spoke of the myth that tells the relationship between Altair and Vega, two stars that are observed in certain time of year high above the horizon and for which the Milky Way simulates a bridge from which they can connect. A representation of this story is in the Chinese Temple in Malag, place most of the attendees do not know.

Special mention should be made about the Muslim practice, which is directly linked to apparent positions of the Sun, which determine the time of pray. Several participants narrate different aspects of astronomy in religious practice and the Koran.

The participants also talked about the day dedicated to working with the telescope and teachers commented that in most schools the teachers ans students want to build these instruments, but it was difficult to get the materials.

Attendees expressed their gratitude to Ma Chung University, sponsor of the course in Malang, and to the local organizers and trainers.

A point to consider for future editions of NASE in this country, is the need for the material translated into the local language. The course, this time, was issued in English.

One of the important decisions taken during the course and concretized in the WG2, was the commitment of the translation of "14 steps into the universe" to Indonesian language.

The president of the Surabaya Astronomy Club, said that this course has opened his eyes and that from now on, he will develop the activities in a different way, using materials from NASE course.

The main conclusion of the conference, can be a phrase by Prof. Kunjaya who proposed to "educate to change the fate of the people"