

04

NEWSLETTER

No 4, 30th August 2011

5th IOAA SILESIA POLAND 2011



WHAT'S IN THIS ISSUE?

Today's program

Students' and leaders' trip

Let there be more light!

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Tuesday, 30th August 2011

Today's Schedule

Students Katowice

- 8³⁰ – 10⁰⁰ breakfast at the hotel
- 10⁰⁰ – 12³⁰ free time and group activities at the hotel
- 12³⁰ – 14⁰⁰ lunch at the hotel
- 15⁰⁰ – 18⁰⁰ data analysis tasks
- 19⁰⁰ – 20⁰⁰ dinner at the hotel
- 20⁰⁰ – 20³⁰ briefing
- 21⁰⁰ the second term of the night observations or Planetarium tasks

Leaders Kraków

- 7⁰⁰ – 8⁰⁰ breakfast at the hotel
- 9⁰⁰ – 17⁰⁰ sightseeing trip to Kraków
- 18⁰⁰ – 20⁰⁰ dinner at the hotel
- 20⁰⁰ – 23⁰⁰ consultations and marking

Leaders' travelling in Silesia

The team leaders took a short break from their duties in Kraków and they have visited the Castle Museum in Pszczyna and the Tychy Brovarium. It was...fun.



Students' travelling in Silesia

The participants of the 5th Olympiad on Astronomy and Astrophysics had finally a day off. Well, at least a part of it. They've visited The Bison Centre in Pszczyna where they've met The Kings of The Polish Forrest. Some students fed Bisons. One of the participants even offered his hand, but he was rejected by His Majesty.

The groups could also see the Beskidy mountains, visited the Museum of Bread in Radzionków, the historical mines in Zabrze and Tarnowskie Góry as well as Pławniowice Palace.

During the excursions some of the students referred to Sunday's theoretical problems. Arturas from Lithuanian team said that the atmosphere during the test was just like during an ordinary school test. "Of course the problems were much more difficult to solve. But I liked them" – Arturas said – "One question was about real stars. We were given their coordinates and directions they were moving towards. And we had to estimate whether they were in gravitation bond or not. So, this is the task the professional astronomers actually do."

The trip to the southern part of Silesia was a great time for the participants. Most of them were smiling all the time. Some even expressed their feelings on a hand made banner.



LET THERE BE

MORE LIGHT!

Apart from cloudy sky, smog and seeing (a measure of the stability of vision in a telescope), another serious difficulty for amateur observations is the presence of sidelights.

It is understandable that we want to feel safe in the evenings and at night and we want our streets, parks and squares to be lit in a normal way. Consequently, our greatest achievement from Edison's era - artificial light - is a trouble for astronomers. Each observer has certainly noticed that street lights and shop adverts contaminate the sky to the same degree as other factors. The observers living 50, 100 or more years ago had convenient conditions so to say. In Copernicus's and Galileo's times, a human eye could see more than a person with the use of binoculars today. In Middle Ages the observers had perfect conditions: the lights were switched off just after dark. Nowadays, numerous observers have to struggle with those sidelights, namely the lights from the cities surrounding the place of observation. In autumn, when the evening fog makes the atmosphere "thicker," the situation get even more complicated. The lights disperse which makes the observations impossible.

Everyone understands that it is good when the streets are brightly lit, we can see the park paths from a distance of a few dozen kilometers and our home gardens are lit in the way improving our mood. But we shall also remember that each extra source of light is, unfortunately, an additional hindrance for those who conduct observations. This problem concerns also astronomical observatories which were build many years before and are now situated in the centres of big cities, agglomerations or on the outskirts. That is what happened to the Greenwich observatory on the outskirts of London, in Paris, Madrid, Rome and in many other places. That is why in numerous cities in the world the societies of black sky are set up.

Despite the shocking name, it is not an organization dealing with black magic, but a group bringing together astronomers and influential people. Their task is to promote such light sources producers, the products of whom will lighten streets and squares but they will not disperse in the atmosphere. They do so in the parliaments of their countries. However, in most countries we build floodlights nearby gas stations, discos and shopping centres. They are supposed to be beautiful and attract customers. In the photos, one can see Europe and the world observed from a satellite. Maybe, it looks nice, but is a real nightmare for astronomers.

Jacek Szczepanik



The photos by NASA