

# **Statutes of the International Olympiad on Astronomy and Astrophysics**

**#1**

In recognition of the growing significance of astronomy and related subjects in all fields of our life, including the general education of young people, and with the aim of enhancing the development of international contacts between different countries in the field of school education in astronomy and astrophysics, an annual competition in these subjects has been organized for high school students; the competition is called the "International Olympiad on Astronomy and Astrophysics" (IOAA). The International Olympiad on Astronomy and Astrophysics should be organized during the within of August – December.

**#2**

The competition is organized by the Ministry of Education or other appropriate institution of one of the participating countries on whose territory the competition is to be conducted. Hereunder, the term "Ministry of Education" is used in the above meaning. The organizing country is obliged to ensure equal participation of all delegations, and to invite all the participants of any of the latest three competitions. Additionally, it has the right to invite other countries.

The International Olympiad on Astronomy and Astrophysics is a purely educational event. No country may have its team excluded from participation on any political ground resulting from political tension, lack of diplomatic relation, lack of recognition of some countries by the government of the organizing country, imposed embargo and similar reasons. When difficulties preclude formal invitation of the team representing a country, students from such a country should be invited to participate as individuals.

Within five years of its entry in the competition a country should declare its intention to be the host for a future Olympiad. This declaration should propose a timetable

so that a provisional list of the order of countries willing to host Olympiads can be compiled.

A country that refuses to organize the competition may be barred from participation, even if delegations from that country have taken part in previous competitions.

Any kind of religious or political propaganda against any other country at the Olympiad is forbidden. A country that violates this rule may be barred from participation.

**#3**

The Ministries of Education of the participating countries, as a rule, assign the organization, preparation and execution of the competition to a scientific society or other institution in the organizing country. The Ministry of Education of the organizing country notifies the Ministries of Education of the participating countries of the name and address of the institution assigned to organize the competition.

**#4**

Each participating country sends one regular team consisting of high school students. Also students who finish their high school in the year of the competition can be members of a team. The age of the contestants must not exceed twenty on December 31st of the year of the competition. Each team should normally have 5 students. In addition to the students, two accompanying persons are invited from each country, one of which is designated as delegation head (responsible for the whole delegation), and the other – as pedagogical leader (responsible for the students). The accompanying persons become members of the International Board, where in they have equal rights. Members of the International Board are treated as contact persons for the participating countries concerning the affairs of the International Olympiad on Astronomy and Astrophysics until the following competition.

The competition is conducted in a friendly atmosphere designed to promote future collaborations and to encourage friendships in the scientific community. To that effect all possible political tensions among the participants should not be reflected in any activity during

the competition. Any political activity directed against any individuals or countries is strictly prohibited.

The delegation head and pedagogical leader must be selected from scientists or teachers, capable of solving the problems of the competition competently. Normally each of them should be able to speak English.

The delegation head of each participating team should, on arrival, hand over to the organizers a list containing the contestants' personal data (first name, family name, date of birth, home address and address of the school attended) and certificates (in English) from the schools confirming the contestants attendance or graduation in the year of the competition.

**#5**

The organizing country has the right to invite guest teams in addition to the regular teams (no more than one guest team per country). Normally the guest team consists also of five students and two leaders. However, the leaders of the guest teams are not members of the International Board. Except for that, their duties are the same as those of the leaders of the regular teams.

Participation of a guest team always needs approval from the organizing country. The country sending a guest team pays all the expenses arising from its participation.

The next organizers are not obliged to invite guest teams present at the previous competition. Countries present with guest teams only are not obliged to organize the IOAA in the future.

Contestants from guest teams and guest teams are classified in the same way as regular teams. They may receive diplomas and prizes, their names should be identified with the letter "G" ("Guest") in all official documents.

**#6**

The working language of the International Olympiad in Astronomy and Astrophysics is English. Competition problems and their solutions should be prepared in English; the organizers, however, may prepare those documents in other languages as well.

## #7

The financial principles of the organization of the competition are as follows:

- The Ministry which sends the students to the competition covers the roundtrip travel expenses of the students and the accompanying persons to the place where the competition is held.
- The Ministry of the organizing country covers all other costs from the moment of arrival until the moment of departure. In particular, this concerns the costs for board and lodging for the students and the accompanying persons, the costs of excursions, awards for the winners, etc.

## #8

The competition consists of 2 parts: the theoretical competition (including short and long questions) and practical competition (including observations and data analysis). There should normally be 15 short and 2 or 3 long questions for the theoretical part. For the practical part, the organizer may give a set task on 1) observation, 2) paper-based practical problem, 3) computer-based problem, 4) planetarium simulation or combination of the four, which is expected to be solvable in 5 hours. The problems should involve at least four areas mentioned in the Syllabus.

The sequence of the competition days is decided by the organizers of the competition. There should be one free day between the two parts of the competition. The time allotted for solving the problems should normally be five hours for the theoretical part and five hours for the practical part. The duration of the Olympiad (including the arrival and departure days) should normally be 10 days.

When solving the problems the contestants may use non-programmable pocket calculators without graphics and drawing materials, which are brought by the contestants themselves. Collections of formulae from mathematics, chemistry, physics, etc., are not allowed.

The host country has to prepare 5 short and 1 long spare of theoretical problems and 2 spare practical problems. They will be presented to the International Board if some

of the originally presented is/are rejected by two thirds of members of the International Board. The rejected problem cannot be reconsidered.

## #9

The competition tasks are prepared by the host country.

## #10

The theoretical part makes 50 % of the total mark, and the practical part 50 % (25% data analysis, 25% observation) of the total mark. The practical solutions should consist of theoretical analysis (plan and discussion) and practical execution. The solution to each problem should contain an answer and its complete justification.

## #11

The contestants will receive diplomas and medals or honorable mentions in accordance with the number of points accumulated as follows:

- The mean number of points accumulated by the three best contestants is considered as 100%.
- The contestants who accumulated at least 90% of points receive first prize (diplomas and gold medals).
- The contestants who accumulate 78% or more but less than 90% receive second prize (diplomas and silver medals).
- The contestants who accumulate 65% or more but less than 78% receive third prize (diplomas and bronze medals).
- The contestants who accumulate 50% or more but less than 65% receive an honorable mention (diplomas).
- The contestants who accumulate less than 50% of points receive certificates of participation in the competition.
- The participant who obtains the highest score (Absolute Winner) will receive a special prize and diploma.
- Other special prizes may be awarded.

## #12

In addition to the individual classification one establishes the team classification according to the following rules:

- Teams consisting of less than three contestants are not classified.
- For judging the best team, a task to be performed by the team as a whole will be designed. This task may form either a part of the theory exam, practical exam, or be held at a different time. In case it is included in the theory or practical exam, the duration of the individual exam may be suitably reduced. The test may contain theory, practical or observation aspect or any combination thereof. The host country will be free to decide which option to use or propose a different format in consultation with the Secretariat. This should be announced to all participants in advance.

## #13

The obligations of the organizer:

1. The organizer is obliged to ensure that the competition is organized in accordance with the Statutes.
2. The organizer should produce a set of "Organization Rules", based on the Statutes, and send them to the participating countries in good time. These Organization Rules shall give details of the Olympiad not covered in the Statutes, and give names and addresses of the institutions and persons responsible for the Olympiad.
3. The organizer establishes a precise program for the competition (schedule for the contestants and the accompanying persons, program of excursions, etc.), which is sent to the participating countries in advance.
4. The organizer should check immediately after the arrival of each delegation whether its contestants meet the conditions of the competitions.
5. The organizer chooses (according to the Syllabus) the problems and ensures their proper formulation in English and in other languages

set out in # 6. It is advisable to select problems where the solutions require a certain creative capability and a considerable level of knowledge. Everyone taking part in the preparation of the competition problems is obliged to preserve complete secrecy.

6. The organizer must provide the teams with guides.
7. The organizer should provide the delegation leaders with Photostat copies of the solutions of the contestants in their delegation at least 24 hours before the moderation.
8. The organizer is responsible for organizing the grading of the problem solutions and moderation.
9. The organizer drafts a list of participants proposed as winners of the prizes and honorable mentions.
10. The organizer prepares the prizes (diplomas and medals), honorable mentions and awards for the winners of the competition.
11. The organizer is obliged to publish the proceedings (in English) of the Olympiad. Each of the participants of the competition (delegation heads, pedagogical leaders and contestants) should receive one copy of the proceedings free of charge not later than one year after the competition.

#### #14

The International Board is chaired by a representative of the organizing country. He/she is responsible for the preparation of the competition and serves on the Board in addition to the accompanying persons of the respective teams.

All decisions, except those described separately, are passed by a majority of votes. In the case of equal number of votes for and against, the chairman has the casting vote.

#### #15

The delegation leaders are responsible for the proper translation of the problems from English (or other languages mentioned in # 6) to the mother tongue of the participants.

#### #16

The International Board has the following responsibilities:

1. To direct and supervise the competition to ensure that it is conducted according to the regulations.
2. To discuss the organizers' choice of tasks, their solutions and the suggested evaluation guidelines before each day of the competition. The Board can change or reject suggested tasks but cannot propose new ones. Changes may not affect practical equipment. There will be a final decision on the formulation of tasks and on the evaluation guidelines. The participants in the meeting of the International Board are bound to preserve secrecy concerning the tasks and to be of no assistance to any of the contestants.
3. To ensure correct and just classification of the prize winners.
4. To establish the winners of the competition and make decisions concerning the presentation of prizes and honorable mentions. The decision of the International Board is final.
5. To review the results of the competition.
6. To select the country which will be the organizer of the next competition.

The International Board is the only body that can make decisions on barring countries from participation in the International Olympiad in Astronomy and Astrophysics for the violation of these Statutes.

Observers may be present at meetings of the International Board, but may not vote or take part in the discussions.

#### #17

The institution in charge of the Olympiad announces the results and presents the awards and diplomas to the winners at an official ceremony. It invites representatives of the organizing Ministry and scientific institutions to the closing ceremony of the competition.

#### #18

The long term work involved in organizing the Olympiads is coordinated by a "Secretariat for the International Olympiad in Astronomy and Astrophysics". This Secretariat consists of the President and Secretary. They are elected by the International Board for a period of five years when the chairs become vacant.

The President and Secretary are members of the International Board in addition to the regular members mentioned in # 4. They are invited to each International Olympiad in Astronomy and Astrophysics at cost (including travel expenses) of the organizing country.

#### #19

Changes in the present Statutes, the insertion of new paragraphs or exclusion of old ones, can only be made by the International Board and requires qualified majority (2/3 of the votes).

No changes may be made to these Statutes or Syllabus unless each delegation obtained written text of the proposal at least 3 months in advance.

#### #20

Participation in the International Olympiad in Astronomy and Astrophysics signifies acceptance of the present Statutes by the Ministry of Education of the participating country.

#### #21

The originals of these Statutes are written in English.