

IAU National Astronomy Education Coordinators (NAECs) Guidelines

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Introduction

The mission of the International Astronomical Union (IAU) is "to promote and safeguard astronomy in all its aspects (including research, communication, education and development) through international cooperation." One of the IAU's goals is to promote the use of astronomy for teaching at primary and secondary school level. To this end, the IAU established its Office of Astronomy for Education (OAE), which is hosted by Haus der Astronomie in Heidelberg, Germany. You can find all the details about the work of the OAE on its website at https://astro4edu.org/

The OAE maintains a network of **National Astronomy Education Coordinators (NAECs)**, which comprises mainly professional and amateur astronomers and educators with expertise in primary and secondary teaching. NAECs are volunteers who act as the interface between the OAE and the local astronomy education communities in their respective countries. (For conciseness, in the remainder of this document we will simply refer to "country" when we mean "country or territory".) NAECs in their turn can appoint **Associate NAEC**s to support them with their work. The NAECs and Associate NAECs of a given country or territory form that country's or territory's **NAEC Team**.

The present document defines the role, appointment procedure and additional terms for individual NAECs, NAEC Teams, and Associate NAECs. It also provides a framework for respectful communication between the OAE, the NAECs, and their local education communities.

1 Linking local communities and the OAE

The task of NAECs, Associate NAECs, and NAECs teams is to link the OAE with the astronomy education communities in the different countries: with primary/secondary educators interested in astronomy, and in using astronomy as a tool for teaching science. This includes:

- 1. helping the OAE to document and analyse how astronomy is used in teaching, at primary and secondary levels, in their country,
- 2. representing each country's/territory's specific needs in astronomy education within the OAE community,
- 3. organising each local astronomy education community, or else liaising with existing organised sections of the local community; this should include a mailing list or similar means of communication with interested teachers, as well as events for teachers,



- 4. disseminating resources developed and curated by the OAE to the various education communities,
- 5. developing and supporting readily accessible and high-quality educational materials tailored to each country's needs and for specific groups and school levels,
- 6. haring best-practice resources and activities with the wider OAE community,
- 7. evaluating resources, and helping teachers to evaluate their resources,
- 8. liaising with education ministries and curriculum experts to promote astronomy in national curricula.
- 9. organising, and supporting the organisation of, teacher training events, notably as part of the OAE's Teacher Training Program (TTP).

We also encourage NAECs to join our OAE astronomy education research projects.

2 National Astronomy Education Coordinators (NAECs)

The leaders within the NAEC teams are the National Astronomy Education Coordinators (NAECs). Every NAEC is appointed directly by the OAE, for a term of at most three years. The term ends before the first day of the following IAU General Assembly. Individuals can apply to be NAECs by filling out the form <u>available on this page</u>. In special cases, the OAE can make arrangements with a country's major astronomy organisation to appoint a representative of the organisation as ex-officio NAEC, ensuring close collaboration between the organisation and the NAEC team.

Half a year before the standard term ends, the OAE will contact existing NAECs to determine whether or not they would like to continue for another term. More details on the appointment procedure and term limit can be found in Appendix A, below.

The NAECs form the core of each NAEC team. Certain matters can only be decided by NAECs, not by Associate NAECs, and the NAECs are also the only ones who are listed on the OAE web pages at https://astro4edu.org/naec-network/. Specifically, NAECs, but not Associate NAECs,

- 1. can serve as NAEC team chairs and NAEC team contact persons,
- 2. can participate, or approve the participation of an Associate NAEC, as the NAEC Team representative for a Teacher Training Program (TTP).
- 3. can decide whether official OAE logos are used for a specific event, resource, or publication,
- 4. are responsible for the content of the respective NAEC Team website,
- 5. are required to participate in the NAEC meetings and the 1:1 dialogue meetings scheduled between the OAE and each country's NAEC team,
- 6. appoint or recall Associate NAECs; this should be done with the consensus of all of a country's NAECs, or else at least of a majority of the NAECs.



Each country can only have up to five NAECs at a time. NAECs are bound by the IAU Code of Conduct and the specific NAEC Code of Conduct (for details on both, see below).

It is important that the NAECs representing a country or territory work together well. If there are conflicts between the NAECs, the OAE will do its best to resolve them. If a situation persists where the NAECs are unable to work together, the OAE reserves the right to restructure the NAEC team by changing the composition of the group of NAECs.

3 Associate National Astronomy Education Coordinators (Associate NAECs)

The Associate NAECs are volunteers who work closely with and support the NAECs, as part of the NAEC team. Deciding what the roles and responsibilities of the Associate NAECs are is up to the NAECs. In larger countries, Associate NAECs might have regional responsibility, that is, they might act as liaisons with education practitioners in a specific geographical region.

Associate NAECs are appointed by the NAECs. This should be done with the consensus of all of a country's or territory's NAECs, or else at least of a majority of the NAECs. When the term of the NAECs ends (namely at the beginning of a new IAU General Assembly), so does the term of all the Associate NAECs. At the beginning of the new term, the new NAECs can begin to appoint (or re-appoint) new Associate NAECs.

Individuals interested in becoming Associate NAECs should indicate their interest to their NAEC Team. Appointment as Associate NAEC is at the discretion of the NAEC Team. NAEC Teams should take care to only appoint Associate NAECs for whom they have a well-defined role in supporting the work of the NAEC Team, and for whom they have the capacity to supervise that support. NAEC teams are encouraged to observe diversity among the Associate NAECs but this is not mandatory.

Associate NAECs will not be listed on the OAE website, but they will be added to the Basecamp platform that the OAE uses to communicate with the NAECs. If a NAEC team has a website, we encourage you to list the Associate NAECs there. Associate NAECs can submit a proposal <u>for funding from the OAE Teacher Training Program</u> (TTP), but that proposal will need to be countersigned by a NAEC. Associate NAECs are bound by the IAU Code of Conduct and the specific NAEC Code of Conduct (for details on both, see below).



4 NAEC Teams

NAECs and Associate NAECs form a country's NAEC team. We do not expect NAEC teams to be hierarchically organized, and members to retain their independence. But we do encourage interactions and close collaboration within each NAEC team – please try to keep each other up to date, and meet regularly!

Within each NAEC team, there are two official roles, which can be held by NAECs but not Associate NAECs: The **chair of the NAEC team** is the team leader, and takes on the responsibility for coordinating the team's effort. The **contact person** has particular responsibility for the information flow between the NAEC team and the general public, and the NAEC team and the OAE. Both roles are listed as such on the OAE website.

Each NAEC team is part of a wider community of like-minded individuals – all of us are passionate about astronomy education, and probably also about sharing our own experiences, and learning from others. We encourage you to take advantage of this community: Talk to your fellow NAECs from different countries. Talk to the OAE Centers and OAE Nodes. Join us on the platform Basecamp to stay in touch with the community, join us at the quarterly NAEC meetings and join us at our regular online workshops!

While the OAE is not able to offer funds to the NAECs directly, we encourage NAEC Teams to undertake their own fundraising efforts and will be providing assistance and training to NAECs who plan to do so.

5 Logo use and representing the IAU

As NAECs, you represent the International Astronomical Union's Office of Astronomy for Education vis a vis your country's scientific and educational communities. The OAE provides a logo for each NAEC team, and NAECs are encouraged to use this logo to identify themselves in those activities they carry out as part of their NAEC role. NAECs are encouraged to use the logo

- 1. on talk slides that you use to inform others about the OAE,
- 2. in their email footer or on a visiting card, whenever you are communicating with others in your capacity as a NAEC,
- 3. on their personal web page or on social media, indicating their status as a NAEC,
- 4. on posters or announcements for official OAE events in your country,
- 5. NAECs are welcome to translate the logo text to their country's language(s), but they are not allowed to change the meaning of the written content, nor change the flag or layout of the logo, and should where possible use the same font as in the original.



Official OAE events in NAECs' countries are those events that you organise in order to coordinate your country's astronomy education community, notably meetings or conferences with the aim of bringing together the country's astronomy educators.

Associate NAECs only have a limited representational role. They should always coordinate their representational activities, such as giving talks about the OAE or organising official OAE events and, more generally, their logo use, with a NAEC. They are encouraged to use the NAEC logo to mark those activities, and they may use the NAEC logo as an indication of their role as Associate NAECs in their personal communication (e-mail, letters, visiting cards).

NAEC Teams may create their own web page or social media presence, using the NAEC logo. The web page should include information about the role of NAEC Teams in general, the OAE, and the IAU; the OAE provides the following boilerplate text for that purpose:

"The International Astronomical Union (IAU) Office of Astronomy for Education's mission is to support and coordinate astronomy education by astronomy researchers and educators, aimed at primary or secondary schools worldwide. As part of this, the Office of Astronomy for Education (OAE) has established teams of National Astronomy Education Coordinators (NAEC teams) in over 120 countries or territories around the world. Each NAEC team acts as the interface between the OAE and the astronomy education community in its country or territory, particularly creating a link from the IAU to teachers interested in astronomy and in using astronomy as a tool for teaching science in primary and secondary school. NAECs teams also represent their national communities' specific needs when it comes to astronomy education and disseminate the work of the global astronomy education community in their country or territory.

More information about the IAU Office of Astronomy for Education can be found at http://astro4edu.org"

NAEC teams may translate this text. Where NAEC Team websites offer additional information, they should take particular care not to duplicate other coordinated efforts within their country. As mentioned previously, if a NAEC team has Associate NAECs, they should be listed on the NAEC team's own website.

Note that the OAE does not endorse any specific student competitions. For instance, you probably know that there are several competing Astronomy Olympiads, and we do not want to play favourites!



The OAE logo is a key part of our corporate identity – in people's minds, it should be specifically linked to what the OAE does. Please help us by using the logo only for those parts of your work that are specifically tied to the OAE! Specifically, you should not use the logo on posters or announcements for an event that is not an official OAE event, or on astronomy education resources or teaching materials that are not publications of the OAE. If you are unsure about logo use, NAECs should contact us at oae@astro4edu.org, and we'll help. Associate NAECs should contact their NAEC team for clarification.

Some things go without saying, but we'll just mention them here anyway: The OAE and the NAEC logos may not be used for the personal profit of the NAECs or Associate NAECs, nor for the promotion of personal endeavours or ideologies that are not directly related to their educational actions and the purpose of their representation within the NAEC network.

As for the IAU logo, please note that it is protected and may not be used or reproduced without the prior and individual written consent of the IAU. Owners of external websites wishing to link to the IAU website may use the IAU's logo for the link, provided they have obtained prior authorisation from the IAU Press Office and on the condition that such use is clearly identifiable as a web link. Check here for more details on the IAU logo usage.

6 Code of Conduct

All members of the IAU community, including NAECs and Associate NAECs, must abide by the <u>IAU</u> <u>Code of Conduct</u>. More specifically, we ask you to abide by the following rules; It is vital for all members of our community to behave in a respectful, honest, ethical and responsible manner, and for the NAECs and Associate NAECs (as for all other community members), this includes the following:

- 1. Respect and take into account the range of backgrounds, language proficiencies and possible disabilities of the audience being addressed.
- 2. Promote astronomy education in scientific and cultural contexts, while not promoting pseudoscience.
- Not discriminate against anyone based on their ethnicity, nationality, gender, disability, socio-economic background, religion or belief, age, marital status, sexual orientation, gender identity or expression or any other reason not related to scientific merit, or engage in racist behaviour.
- 4. Not harass or bully. This includes, but is not limited to, a prohibition on demeaning personal comments, epithets, slurs or negative stereotyping; threatening, intimidating or hostile acts; denigrating jokes and display or circulation of written or graphic material that denigrates or



- shows hostility or aversion towards an individual or group, unwanted sexual comments or attention, unwanted physical contact, recording or photographing an individual without their consent.
- 5. Take appropriate remedial action when witnessing acts of discrimination, harassment or bullying. Note that such action should always be taken in consultation with those who are being subjected to the discrimination, harassment or bullying in question.
- 6. At any educational event that you host, make sure that the event complies with the appropriate health, safety, and child safeguarding regulations in the jurisdiction the event is being hosted in.

If you witness behavior within your NAEC team or within the wider NAEC and OAE network that breaches this code of conduct, then please contact the OAE, specifically <u>Gwen Sanderson</u>. In reporting and investigating incidents, the OAE will follow the rules laid down for ethics breaches or harassment at IAU meetings and activities in the IAU code of conduct. For disputes within the NAEC team that do not rise to the level of a breach of the code of conduct, please contact <u>Gwen Sanderson</u> for mediation.

7 Closing remark

These guidelines are sure to evolve as we grow as a community, and as we each gain more experience together. The important part is for us to work together, in good faith. That is what these guidelines are meant to facilitate.



Appendix A: Specifics of NAEC appointment and reappointment

While the above information should be sufficient for everyday NAEC team operation, here are more details for those situations where it's important to know exactly what is what.

In setting up a NAEC team with its up to five members, we strive for being representative and diverse. NAECs themselves should come from astronomy education, amateur astronomy, astronomy or more general science education. Wherever possible, experts on both primary and secondary education, as well as on astronomy education research, should be included, but we are aware that this is not always possible. NAEC Teams should be diverse both in terms of gender as well as in terms of your country's geographic regions, ethnicities and languages, where applicable. The criteria we apply when considering NAEC applications are the following: NAECs:

- 1. shall demonstrate rich knowledge and experience in astronomy education activities (in particular coordinating national-scale activities);
- 2. shall demonstrate a strong motivation to initiate astronomy education activities in countries without significant astronomy activities;
- 3. shall have or establish a local/national network involving relevant stakeholders (e.g. professional astronomers, astronomy educators, planetariums (when applicable) and amateur astronomer communities);
- 4. shall be able to allocate enough time for active participation in the OAE community.

For each NAEC application, the OAE considers these criteria, taking into account the applicant's own description as well as the information in the letter(s) of recommendation. Once it is clear that an applicant meets the criteria, for countries/territories that are members of the IAU, the OAE informs the National Committee for Astronomy (NCA) or National Member (NM). If NCA or NM object, the OAE team will try to resolve the issue. If this is not possible, the OAE team will approach and involve the OAE Steering Committee.

If there is no objection from NCA/NM, or if there was an objection but it has been resolved, the OAE team notifies the applicants that they have been accepted as NAECs. If the decision was taken not to admit the applicant as a NAEC, that decision will be communicated as well.

There is a natural rhythm to being a NAEC. Every three years, the IAU has its General Assembly: a meeting of typically more than a thousand astronomers consisting of scientific symposia, but also gatherings of the IAU's topical groups (Divisions, Commissions), decisions on IAU Resolutions (remember the one that demoted Pluto? All the others are less controversial!) and organisational business. The IAU executive officers, including the IAU president and IAU general secretary, serve for one turn, from one General Assembly to the next. NAEC terms follow the same pattern: they end



on the day before the next General Assembly, and a new NAEC term begins at the earliest on the first day of a General Assembly. Associate NAECs are appointed for the term of their NAEC team. With the transition to a new NAEC team term, previous Associate NAEC appointments become void. New NAEC teams should (re-)appoint their country's Associate NAECs in a timely manner.

If you have been active as a NAEC before, the OAE is very interested in retaining you, and ensuring you remain a member of our community! That is why, six months before each IAU General Assembly, the OAE begins a process of vetting and confirming NAEC teams. As part of this process, all NAECs will be asked whether they would be willing to continue as NAECs, and be appointed for another three-year term.

If you have applied for, and are appointed as, a NAEC within six months before an IAU General Assembly, your NAEC status will automatically carry over to the next three-year term. The OAE team will inform you of this.

If there are more applicants for NAEC than there are places in a country's NAEC team (the maximum is five), the OAE will approach the respective community and arrange for a suitably diverse NAEC team, encouraging the NAEC team to appoint the additional applicants as Associate NAECs.

We appreciate that NAEC work is volunteer work, and that your personal time is limited and your priorities might change. Hence, NAEC team members may withdraw from their role at any time. NAECs should inform the OAE of this in writing. Associate NAECs should inform their NAEC team's contact person if they wish to resign or withdraw from their role.

Former NAEC will be removed from Basecamp and NAEC mailing list, but they may continue to receive information about OAE activities via the OAE mailing list.

The responsibility for adding or removing NAEC members from the team rests solely with OAE. While NAEC team members may recommend individuals for inclusion, new members will only be accepted if their applications are approved and there are available spots within the team. Neither team chairs nor contact persons have the authority to remove NAEC members from the team. If a NAEC wants to withdraw, they will need to contact the OAE directly, by email at oae@astro4edu.org.