

WG Small Bodies Nomenclature

CHAIR
VICE-CHAIR
SECRETARY
MEMBERS

Jana TICHA
Keith NOLL
Gareth V. WILLIAMS
Yulia CHERNETENKO
Julio FERNANDEZ
Daniel W. E. GREEN
Pamela KILMARTIN
Syuichi NAKANO
Carrie NUGENT
Donald YEOMANS
Jin ZHU

EX-OFFICIO MEMBERS

Rita SCHULZ (Chair of the WGPSN)
Gonzalo TANCREDI (President of Div. F)
Peter VERES (MPC Representative)

The Working Group Small Body Nomenclature of The Division F Planetary Systems and Bioastronomy of The International Astronomical Union TRIENNIAL REPORT 2018-2021

1. Background

The WGSBN has the responsibility for naming small bodies (except satellites of the major planets) in the Solar System. It covers the naming of minor planets, including Near Earth Objects and Transneptunian Objects, comets, dwarf planets (in collaboration with the WGPSN) and satellites of minor planets.

The list shows that the WGSBN membership is nicely distributed regarding both geography and gender. The Organizing Committee (OC) of the WG consists of the Chair, Secretary and Vice-Chair.

The membership of the WGSBN totaled 14, including 11 voting members and 3 ex-officio members, during this triennium.

2. REPORT OF ACTIVITIES

The WGSBN's main task is to judge and approve (or reject) newly proposed minor planet name proposals. The WG members work continually on the approval process using the special web-based voting system maintained by the WG Secretary. Special or controversial proposals are discussed either via e-mail exchange or via comments in the web-based system.

There are now 22178 named minor planets, an increase of 957 since the last General Assembly in August 2018. Most of the decrease in the number of new names compared

with the previous triennium is due to the recent lack of LINEAR names for student science fair winners. Assuming the WG gets approval from the IAU EC for the new WGSBN Bulletin, we expect several hundred more by the time of the GA.

The WGSBN also deals with comet naming. The majority of newly-discovered comets are named via a Comet Names subcommittee (Williams and Green) which gets the discovery circumstances for each new comet from the MPC and assigns names according to the WGSBN comet-naming guidelines. More complicated cases are discussed via e-mail and votes are cast via the web. There have been 176 new names of comets assigned during the triennium.

Naming of small solar system bodies has been an important, publically-visible topic for a long time. It is an useful means to communicate astronomy to the public. It gives us an opportunity to build connections between science and art and society. Occasionally, it can become a controversial topic. Special attention is given to objects having unusual orbits (NEOs, TNOs, Trojans), space mission targets, targets of deep physical studies and so on.

The most interesting new minor-planet names approved during the triennium include potential hazardous asteroid (66391) Moshup = 1999 KW4 and its satellite Squannit, whose names coming from the Makiawasug, a native people of the New England coast, or the extremely-eccentric transneptunian object (541132) Leleakuhonua, discovered at Mauna Kea Observatory, whose name was suggested by the Hawaiian-language program. The transneptunian object (486958) = 2014 MU69 originally received an unfortunate nickname during the New Horizons spacecraft flyby, but it was later officially named Arrokoth to represent the Powhatan people indigenous to the Tidewater region of Maryland, the home of STScI, which operates HST, the discovery instrument. The Chinese mythological name Gonggong for the possible dwarf planet and scattered disc object (225088) = 2007 OR10 was chosen as a result of a public naming event; its satellite was named Xiangliu at the same time. Queta, a suitable name based on the WGSBN IAU guidelines, was approved for the newly-discovered satellite of Trojan (3548) Eurybates, a future target of the Lucy space mission. Discussions between the IAU President, the IAU General Secretary and the WGSBN OC led to naming of a small group of main-belters for COSPAR 2020 Awards recipients as well as naming and public presentation of (75190) Segreliliana honoring an Auschwitz survivor and Holocaust educator.

These examples show that the WGSBN and discoverers tend to select and use names coming from a huge variety of cultures and languages all over the world, as well as how delicate some naming cases can be.

3. FUTURE PLANS

Currently the process is that names are proposed by discoverers or others and then voted on by the WGSBN. Sometimes minor edits are suggested as part of this process, most of the time the names are simply approved. Once there is a majority of our 11 voting members the name is then sent to the Minor Planet Center (MPC) for publication in the Minor Planet Circulars.

The WGSBN, as well as its predecessor (the CSBN), has been working for several decades in close cooperation with the Minor Planet Center of the IAU (the MPC), which collects positional measurements of minor planets and comets and serves as the world clearinghouse for their orbits. The MPC also served as a collection point for new name proposals and published the approved names and citations via its monthly Minor Planet

Circulars. In the past this was a relatively seamless process, especially when WGSBN or its predecessor had Brian G. Marsden and later Gareth Williams resident at MPC. More recently with changes at MPC and Gareth Williams retirement from there in 2020, it has become a much less predictable process, sometimes taking months. To remedy this situation we have proposed a new electronic publication, called the WGSBN Bulletin, that would be hosted by the IAU. WGSBN Bulletins could be published whenever needed with a relatively automated process. This would be especially advantageous for special namings such as those intended to coincide with papers, meetings, press releases and so on. We plan that names would still be passed on the MPC and JPL for inclusion into their respective database. We hope that by speeding up the publication step and having that in our own control it will help speed up the naming process. As will defining a maximum time (two or three months) between submission of a name proposal and the acceptance/rejection of that proposal. Moreover to these main changes we plan to make a template for certificates of named minor planets available to those who might want a printed copy.

Jana TICHÁ

The Chair of the WGSBN of the IAU