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Strengthening the means for the Office for Outer Space Affairs to cooperate with non-governmental entities in the space arena for the benefit of developing countries

Background

- 1. In recent years the Office for Outer Space Affairs has seen increasing interest of States to use space based technology to promote socioeconomic development and to increase the quality of life of their citizens. During this time, the Office has also received proposals from space agencies and research institutions in Member States to utilize their national assets for the benefit of developing countries.
- 2. These programmes have included the now ongoing Zgip clinostat microgravity plant growth experiment programme, the DropTower Experiment Series (DropTES), the KiboCube small satellite programme, and the utilization of China's forthcoming manned space station. In each of these programmes the Office has or will carry out a similar role which includes receiving applications from institutions interested in conducting space related experiments, coordinating a process to select an appropriate institution based on the merits of their proposed experiment, working with selected institutions to further develop their experiment, and liaising with the asset owner or operator in the integration and experiment operation phase.
- 3. The Zgip programme has distributed clinostats to 46 institutions in 26 countries since 2013, the DropTes has awarded one fellowship annually, also since 2013 and the agreement has been extended until 2020, the University of Nairobi in Kenya has been selected as the first institution under the KiboCube programme to construct a cube sat which will be deployed by the Japanese Aerospace Exploration Agency (JAXA) from the Japanese module Kibo of the International Space Station (ISS), and the Office is looking forward to recruiting a specialist who will carry out the coordinative and outreach work with the Government of China and the China Manned Space Agency regarding the utilization of China's space station when it becomes operational.
- 4. The success of these programmes has demonstrated that this model of providing capacity building opportunities to educational institutions and national space agencies to design, construct and deploy microgravity experiments is useful in fulfilling the





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needs of developing countries aspiring to take advantage of space science and technology. In this way, the Office has played a crucial role in channelling appropriate opportunities generously donated by countries having space capabilities, to institutions in developing countries that would otherwise have little no prospect of carrying out space related scientific research.

Contribution of non-Governmental entities to the work of the Office

- 5. In recent years, non-governmental entities have played an increasingly large role in the peaceful exploration and use of outer space. Non-governmental entities have been successful in conducting research and development into space science and technology and this success has allowed non-governmental entities to attract, recruit, and employ the most highly trained specialists from around the world.
- 6. Non-governmental entities therefore have a vested interest in promoting capacity building at educational institutions in order to ensure their continued access to qualified candidates in the space arena. In this regard, the interests of non-governmental entities are aligned with the Office's mandate to increase the capacity of Member states' educational institutions in space science and technology and to promote socio-economic development through the access to and use of space based technology.
- 7. Numerous non-governmental entities have approached the Office seeking avenues to support the work of the Office. These offers have been both in-kind and in-cash, and often with a mix of the two.
- 8. Such offers have included proposing scientific and technical experts in specific space related areas as well as contributing to defraying the costs of conducting workshops, symposia and other related events, particularly in developing countries.
- 9. Another cooperative programme the Office has explored with a non-governmental entity is with DigitalGlobe, Inc. of the United States. The purpose of the Office working with DigitalGlobe is to explore how high resolution imagery can be more effectively and efficiently be leveraged across the entire United Nations System, as United Nations entities begin to increasingly incorporate satellite imagery into their work
- 10. It is the intention of the Office to accept these offers of support in order to deliver a greatly expanded and substantively rich portfolio of programmes and activities to Member States, particularly to developing countries.
- 11. The intention of the Office to work more closely with non-governmental entities in the space science and technology field is also aligned with opportunities outlined by Secretary General Antonio Guterres in his letter of 4 April 2016 to the President of the General Assembly, in which he details his vision and future for the United Nations.
- 12. In that letter, Secretary General Guterres calls for the United Nations to develop a strong culture of partnership with civil society and the private sector, and for United Nations organizations to recognize their role in providing global public goods by developing strategic cooperation with civil society and private sector partners.

The Access to Space Programme

13. Recently the Office has been presented with an opportunity to work with the non-governmental entity, the Sierra Nevada Corporation of the United States, as it has offered to donate the use of their proprietary orbital space vehicle for a multi-country mission intended to benefit developing countries.

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- 14. The Office entered into a Memorandum of Cooperation with Sierra Nevada Corporation in June 2016 and it has proposed that the Office carry out its familiar role of coordinating the selection process, working with selected institutions, and liaising between the selected institutions and Sierra Nevada Corporation for on board experiment integration.
- 15. To the Office, this offer is the first of its kind from a non-governmental entity, but programmatically, it will be handled similarly to the Zgip, ZARM, KiboCube and CMSA programmes.
- 16. However, it is clear that there will be costs associated with this programme that cannot be covered by in-kind support generously donated from Sierra Nevada Corporation. For example, additional professional staff will be needed in the Office to undertake the substantive and coordinative work. Additionally, to achieve success of this programme, the Office will likely engage in fundraising efforts to support the launch of the orbiter.

Utilizing offers of support from non-governmental entities

- 17. The Office for Outer Space Affairs is an Office of the United Nations Secretariat, and therefore must comply with internal rules and regulations regarding authority to enter into cooperative and funding agreements with non-governmental entities.
- 18. While at the United Nations wide level there is a growing acceptance of the contribution that non-governmental entities may play in the delivery of programmes to member States, there is no broad mandate for the any office of the United Nations Secretariat to actively pursue cooperative arrangements with non-governmental entities.
- 19. Indeed, within the United Nations Secretariat, there are broad ethical, legal and financial considerations to be addressed when contemplating the formal acceptance of in kind and in cash contributions from non-governmental entities that support the work of the Office.
- 20. Currently, there is no established procedure in the United Nations Secretariat for approving and concluding cooperative and funding agreements between the United Nations and non-governmental entities. The United Nations Ethics Office reviews applications from individual offices of the United Nations Secretariat, including the Office for Outer Space Affairs, on a case-by-case basis.
- 21. The criteria for review is broadly that the non-governmental entity is engaged in exclusively peaceful purposes, that the non-governmental entity operates legally in all respects, and that there are no conflicts of interest between the United Nations entity and the non-governmental entity with which it intends to cooperate.
- 22. Additionally, the agreement itself is reviewed by the Office of Legal Affairs for compliance to internal rules for concluding legal agreements. The Financial Resources Management Service will also review and approve the agreement should there be an in-cash contribution and for any other operative term impacting the financial liability of the United Nations.
- 23. Finally, the United Nations Global Compact also plays a role in promoting cooperation between non-governmental entities and the United Nations, and has provided a conduit for non-governmental entities to contribute to supporting the work of the United Nations.
- 24. The Office is working with all interested internal stakeholders, including the Ethics Office, the Office for Legal Affairs, the Financial Resources Management Service, and the Global Compact, to formalize and regularize the criteria and

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procedure for review and approval of cooperation and funding agreements with a view towards utilizing support offered by non-governmental entities.

- 25. In the interest of supporting member States, particularly developing countries, in their quest for access to space, the Office will seek and accept contributions to support the work and programmes of the Office, particularly its programme on Access to Space.
- 26. It is envisioned that through these contributions, the Office will better serve the interests of member States, particularly developing countries, by providing to States a greater number of, and at the same time more substantively meaningful, capacity building programmes, without impacting the regular budget of the Office or reducing the current programme of activities.

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