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Proposed programme budget for 2020

Programme planning

Proposed programme budget for 2020

Part II
Political affairs

Section 6
Peaceful uses of outer space

Programme 5
Peaceful uses of outer space

Contents

* A/74/50.

** In keeping with paragraph 11 of resolution 72/266 A, the part consisting of the programme plan and programme performance information is submitted through the Committee for Programme and Coordination for the consideration of the General Assembly.

*** In keeping with paragraph 11 of resolution 72/266 A, the part consisting of the post and non-post resource requirements is submitted through the Advisory Committee on Administrative and Budgetary Questions for the consideration of the General Assembly.

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Foreword

On 11 May 2018, Kenya successfully launched its first ever satellite, deployed from the Japanese experiment module "Kibo" on the International Space Station. The event made history as the first satellite launched with the support and under the auspices of the United Nations and was made possible only through international collaboration between Governments, space agencies, academia and the Office for Outer Space Affairs, in its role as a capacity-builder and facilitator.

We stand at a defining time in history: more than 70 States have an established space agency, an increasing number of policymakers are turning to space to make well-informed decisions and the space community is growing rapidly. Since 2016, more than 970 satellites and other space objects have been registered with the Office, an all-time high that illustrates the level of global demand for access to space. As the United Nations entity responsible for space affairs, the Office supports the international framework that governs space activities while enabling countries to gain access to and use the information and data that only space can provide.

Building on my previous experience in managing complex space programmes, it is my absolute conviction that international cooperation is fundamental for bringing to developing and developed countries alike the benefits derived from space science and technology and their applications. The benefits of space are driving societal development and economic growth and require inclusive multilateral diplomatic solutions to address the rapidly evolving environment, on Earth and in space. This is evidenced by the findings of our 2018 research that approximately 40 per cent of the 169 targets underpinning the Sustainable Development Goals are reliant on or supported by Earth observation and global navigation satellite systems. Space technology also offers us – right here and right now – a means of preserving our beautiful planet and a vital piece of the puzzle that will allow us to work together to overcome the global challenges that humanity faces.

Accordingly, in 2018, Member States committed themselves to a two-year process to establish the "Space2030" agenda as a comprehensive strategy for strengthening the contribution of space to the global agendas. The Office will facilitate that work, which will be undertaken under the auspices of the Committee on the Peaceful Uses for Outer Space, and stands ready to support the implementation of the strategy.

(*Signed*) Simonetta **Di Pippo**
Director
Office for Outer Space Affairs

Overall orientation

Mandates and background

6.1 The Office for Outer Space Affairs implements the programme on the peaceful uses of outer space. The programme works to bring the benefits of space to humankind by promoting international cooperation in space activities, at a time when new technologies and the increasing number of actors are rapidly changing the structure and content of those activities. This increasingly complex environment, combined with the relevance of space science and technology and their applications for achieving the goals of the global agenda, as well as the need to ensure the long-term sustainability of outer space activities, are the main drivers behind the responsibilities of the Office under the programme.

6.2 The mandate of the Office derives from the priorities established in relevant General Assembly resolutions and/or decisions, including resolutions 1472 A (XIV) and 73/91 on international cooperation in the peaceful uses of outer space, 73/72 on transparency and confidence-building measures in outer space activities and 73/6, entitled "Fiftieth anniversary of the first United Nations Conference on the Exploration and Peaceful Uses of Outer Space: space as a driver of sustainable development".

6.3 The main responsibilities carried out by the Office under the programme are: (a) to serve as the secretariat to the Committee on the Peaceful Uses of Outer Space and its subsidiary bodies, as executive secretariat to the International Committee on Global Navigation Satellite Systems and its Providers' Forum (resolutions 61/111 and 64/86) and as the secretariat to the Space Mission Planning Advisory Group (resolution 71/90); (b) to implement the United Nations Programme on Space Applications (resolutions 2601 A (XXIV) and 37/90) and the Programme on the United Nations Platform for Space-based Information for Disaster Management and Emergency Response (UN-SPIDER) (resolution 61/110); (c) to maintain the Register of Objects Launched into Outer Space; and (d) to discharge the responsibilities of the Secretary-General under the United Nations Treaties and Principles on Outer Space and related resolutions (resolutions 1721 B (XVI), 2222 (XXI), 2345 (XXII), 3235 (XXIX), 47/68, 59/115 and 62/101).

Alignment with the Charter of the United Nations, the Sustainable Development Goals and other transformative agendas

6.4 The mandates of the Office guide it in producing the respective deliverables, which contribute to the attainment of the objective. The objective of the Office is aligned with the Organization's purposes to maintain international peace and security, and to that end: to take effective collective measures for the prevention and removal of threats to the peace, and for the suppression of acts of aggression or other breaches of the peace, and to bring about by peaceful means, and in conformity with the principles of justice and international law, adjustment or settlement of international disputes or situations which might lead to a breach of the peace; to develop friendly relations among nations based on respect for the principle of equal rights and self-determination of peoples, and to take other appropriate measures to strengthen universal peace; and to achieve international cooperation in solving international problems of an economic, social, cultural or humanitarian character, and in promoting and encouraging respect for human rights and for fundamental freedoms for all without distinction as to race, sex, language, or religion, as stipulated in Article 1 of the Charter of the United Nations. In the context of the 2030 Agenda for Sustainable Development, the purposes stipulated in Article 1 of the Charter are embodied by the Sustainable Development Goals. The objective, and therefore the deliverables, is aligned with all Sustainable Development Goals, as reflected in paragraph 6.19.

6.5 The objective is also aligned with the Sendai Framework for Disaster Risk Reduction 2015–2030 and the Paris Agreement.

Recent developments

6.6 In 2018, the General Assembly, in its resolution 73/6, invited the Committee on the Peaceful Uses of Outer Space to continue to develop, by 2020, the "Space2030" agenda and its implementation plan. That invitation was made in the context of a call by Member States for a response at the United Nations level to the rapidly evolving space sector.

6.7 The development of the "Space2030" agenda is the outcome of the fiftieth anniversary of the United Nations Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACE+50), a process that was implemented by the Committee to chart its future contribution to the global governance of outer space activities.

6.8 The "Space2030" agenda and its implementation plan are expected to articulate a comprehensive strategy for strengthening the contribution of space activities and space tools to the achievement of the global agendas to address long-term sustainable development concerns of humankind.

Strategy and external factors for 2020

6.9 The Office will leverage its role as a global facilitator and capacity-builder to promote the peaceful uses of outer space. To that end, it will: (a) promote greater awareness of and advocate greater adherence to the international legal regime governing outer space activities, by assisting States in building or enhancing their capacities in space law and policy, global space governance, space debris mitigation and transparency and confidence-building measures in outer space activities; (b) support the application of international space law by maintaining the Register of Objects Launched into Outer Space, which serves to assist in the identification of space objects; (c) facilitate cooperation and knowledge-sharing and promote space-based solutions for Member States to achieve the Sustainable Development Goals, by working with countries to strengthen their capacity in the use of space science and technology and related applications; (d) support countries in their institution-building efforts; (e) coordinate space-related activities within the United Nations system; (f) develop collaborative platforms; and (g) build a global space partnership and commemorate historical milestones and celebrations, such as World Space Week, the International Day of Human Space Flight and International Asteroid Day. The Office will focus on building indigenous capability in the areas of environmental monitoring, natural resource management, satellite communications and disaster risk reduction, including by providing universal access to all types of space-based information and services, to support the full disaster management cycle. It will also focus on the use of global navigation satellite systems, including by promoting cooperation in relation to civil satellite-based positioning, navigation, timing and value-added services, as well as basic space sciences, climate change, basic space technology and human space technology. The Office will also contribute to Secretariat-wide initiatives and commitments, for example the Secretary-General's strategy on new technologies.

6.10 The plan of work and the strategic direction of the Office will take into account the decisions of the Committee in the development and implementation plan of the "Space2030" agenda.

6.11 With regard to the external factors, the overall plan for 2020 is based on the following planning assumption: the willingness and ability of stakeholders to continue to support the objectives of the programme.

6.12 The Office integrates a gender perspective in its operational activities, deliverables and results, as appropriate. For example, the result reflects the implementation of the new "Space for women" initiative, launched to ensure that the benefits of space reach women and girls, as indicated by the deliverables planned under seminars, workshops and training events; consultation, advice and advocacy; and databases and substantive digital materials.

6.13 With regard to cooperation with other entities, the Office will leverage its established partnerships with governmental, intergovernmental and non-governmental organizations, including space agencies, industry, academia, institutions and other space-related entities, to explore avenues and

pursue new opportunities to increase its capability to meet the growing demand for support to strengthen the capacity of countries, in particular developing countries, in using space science and technology and their applications. The Office will also pursue new cooperative relationships, including with the private sector, to maximize the effective use of resources and identify new mechanisms for providing access to space for all.

6.14 With regard to inter-agency coordination and liaison, the Office will continue to lead the Inter-Agency Meeting on Outer Space Activities (UN-Space), which promotes coordination and cooperation among the participating entities and aims at preventing the duplication of efforts relating to the use of space applications by the United Nations. Through that mechanism, the Office works closely with other United Nations entities to report on the coordination of space-related activities within the United Nations system (see A/AC.105/1179) and on other selected topics to increase awareness of the space-related activities of the United Nations in specific areas. The most recent UN-Space report (A/AC.105/1146) was focused on developments within the United Nations system relating to space weather. UN-Space also connects United Nations entities with Governments and other stakeholders to promote dialogue on the space-related work of United Nations system entities and on the use of science and technology and related applications as tools to advance human development and increase overall capacity development.

Evaluation activities

6.15 The joint midterm self-evaluation of the UN-SPIDER Beijing office, completed in 2018, has guided the programme plan for 2020.

6.16 The findings of the self-evaluation referenced in paragraph 6.15 above have been taken into account for the programme plan for 2020. The evaluation recognized the relevance and contribution of the work of the Beijing office to the mandate and objective of the Office for Outer Space Affairs and called for the strengthening of strategic communication and collaboration with donor and partner agencies, as demonstrated by the plan to implement, in 2020, additional training activities on the use of space technology for disaster management, arising from a new partnership within the Asia-Pacific region.

6.17 No evaluations or self-evaluations are planned for 2020.

A. Proposed programme plan for 2020 and programme performance for 2018

Programme of work

1. Objective

6.18 The objective, to which this office contributes, is to strengthen international cooperation in space activities and the use of space science and technology.

2. Alignment with the Sustainable Development Goals

6.19 Given its broad scope, the objective is aligned with all of the Sustainable Development Goals.

3. Highlighted result in 2018

Space solutions to support disaster risk reduction: the case of the Dominican Republic

Natural-colour image of Hurricane Matthew over the Dominican Republic and Haiti in October, 2016. Source: National Aeronautics and Space Administration

Space-based technologies, such as remote sensing for Earth observation, satellite-based telecommunication and global navigation satellite systems, contribute to disaster risk management and emergency response efforts. Since the establishment in 2006 of UN-SPIDER, the Office for Outer Space Affairs has supported countries in their use of all types of space-based information in all phases of the disaster management cycle, including prevention, preparedness, early warning, response and reconstruction. In particular, from 2010 to 2018, the Office worked with the Government of the Dominican Republic on the use of space-based solutions for disaster risk reduction, strengthening its institutions and providing technical advice on incorporating the use of space-based information into its activities. The Dominican Republic regularly faces extreme weather events, including hurricanes and tropical storms, which have caused floods, landslides and storm surges that result in the loss of life, the displacement of affected communities and the destruction of property. Since 2016, the country has faced three devastating hurricanes: Matthew in 2016, and Irma and Maria in 2017.

Result and evidence

The deliverable contributed to the result, which is the integration of space science and technology and its applications into decision-making by planning authorities and improved access to reliable, accurate and timely information by emergency, rescue and relief organizations. For example, the Dominican Republic now has the ability to obtain up-to-date satellite imagery for the elaboration of maps to be used by responders.

Evidence of the result includes the launch in July 2018 by the Dominican Republic of a national integrated information system. This is a decision-making tool for disaster risk reduction and emergency response that uses space-based data to analyse, visualize and disseminate information. By coordinating its planning and response to

disasters, and producing maps autonomously, the Dominican Republic is able to reduce the impacts of hazards and, going forward, to support planners and responders in neighbouring countries, in particular Haiti.

The result demonstrates progress made in 2018 towards the collective attainment of the objective.

6.20 A planned result for 2018, which is strengthened capacity of countries, including developing countries and countries with economies in transition, in using space science and technology and related applications, including global navigation satellite systems, particularly in areas related to sustainable development, as referred to in the proposed programme budget for the biennium 2018–2019, was achieved, as evidenced by the implementation in 2018 of 11 capacity-building and training activities in space science and technology and related applications, bringing to 67 the total number of countries receiving training from the Office.

4. Highlighted planned result for 2020

Access to space for all

In 2018, the Office carried out a number of activities to strengthen international cooperation in the conduct of space activities and to strengthen the capacity of countries to use space science and technology and their applications towards achieving the Sustainable Development Goals.

Challenge and response

The challenge was, among others, to meet the increasing demand from Member States for support in gaining access to space, in particular given the recognition of the relevance of space-based solutions to the 2030 Agenda for Sustainable Development.

In response, for 2020, the Office will, in partnership with the global space community, broaden the number of countries that benefit from space-based technology through an initiative to provide access to space to all, and in particular to non-spacefaring countries. The Office will conduct workshops and training courses on various areas of space science and technology, as well as space law and policy, which will allow countries to gain access to cutting-edge scientific research for domestic satellite development, in order to conduct orbital experiments and enhance the wider use of space technology as a means to achieve sustainable development. A new initiative on access to space for all is being implemented to increase the number of opportunities that the Office is able to offer all countries, with a clear focus on developing countries, through its engagement with the space community, including the private space sector, and leveraging previous initiatives more holistically.

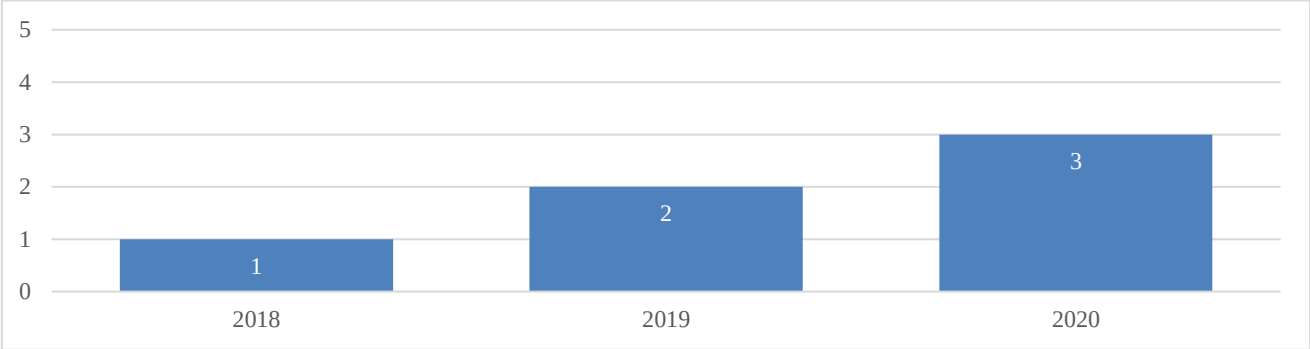
Result and evidence

The planned deliverables are expected to contribute to the result, which is a greater number of developing countries with strengthened capacity to use space science and technology and related applications.

Evidence of the result, if achieved, will include a greater number of countries to have launched their first satellite with the support of the United Nations, thereby increasing their domestic satellite development capability and becoming a spacefaring nation, as shown in the figure.

The result, if achieved, will demonstrate progress made in 2020 towards the collective attainment of the objective.

Performance measures: number of developing countries to have launched their first satellite into outer space



6.21 The Office will continue to be guided by all mandates entrusted to it, which provide the legislative framework for its deliverables.

5. Deliverables for the period 2018–2020

6.22 Table 6.1 lists all deliverables, by category and subcategory, for the period 2018–2020 that contributed and are expected to contribute to the attainment of the objective stated above.

Table 6.1
Deliverables for the period 2018–2020, by category and subcategory

	2018 planned	*2018 actual*	*2019 planned*	*2020 planned*
Quantified deliverables				
A. Facilitation of the intergovernmental process and expert bodies				
Parliamentary documentation (number of documents)	70	137	70	95
Substantive services for meetings (number of three-hour meetings)	72	89	61	71
Conference and secretariat services for meetings (number of three-hour meetings)	12	14	12	14
B. Generation and transfer of knowledge				
Seminars, workshops and training events (number of days)	37	44	38	42
Publications (number of publications)	4	4	4	5
Technical materials (number of materials)	17	45	17	39
Non-quantified deliverables				
C. Substantive deliverables				
Consultation, advice and advocacy				
Databases and substantive digital materials				
D. Communication deliverables				
Outreach programmes, special events and information materials				
External and media relations				

6. Most significant relative variances in deliverables

Variances between the actual and planned figures in 2018

6.23 The variance in parliamentary documentation and substantive services for meetings was driven mainly by the organization in June 2018 of UNISPACE+50, owing to the additional documents and consultations required.

6.24 The variance in seminars, workshops and training events was driven mainly by the implementation of one training event that had been postponed from 2017 at the request of the host country, the implementation of a panel on the "Space for women" initiative and one new training event, owing to the establishment in 2018 of a new partnership in the Asia-Pacific region.

6.25 The variance in technical materials was driven mainly by the submissions of Member States, owing to the increase in registrations of objects launched into outer space.

Variances between the planned figures for 2020 and 2019

6.26 The variance in parliamentary documentation and substantive services for meetings is driven mainly by the need to finalize the "Space2030" agenda and its implementation plan by the seventy-fifth session of the General Assembly, owing to the required additional documents and consultations.

6.27 The variance in seminars, workshops and training events is driven mainly by the number of training events required, owing to the implementation of activities relating to the "Space for women" initiative and the use of space technology in disaster management.

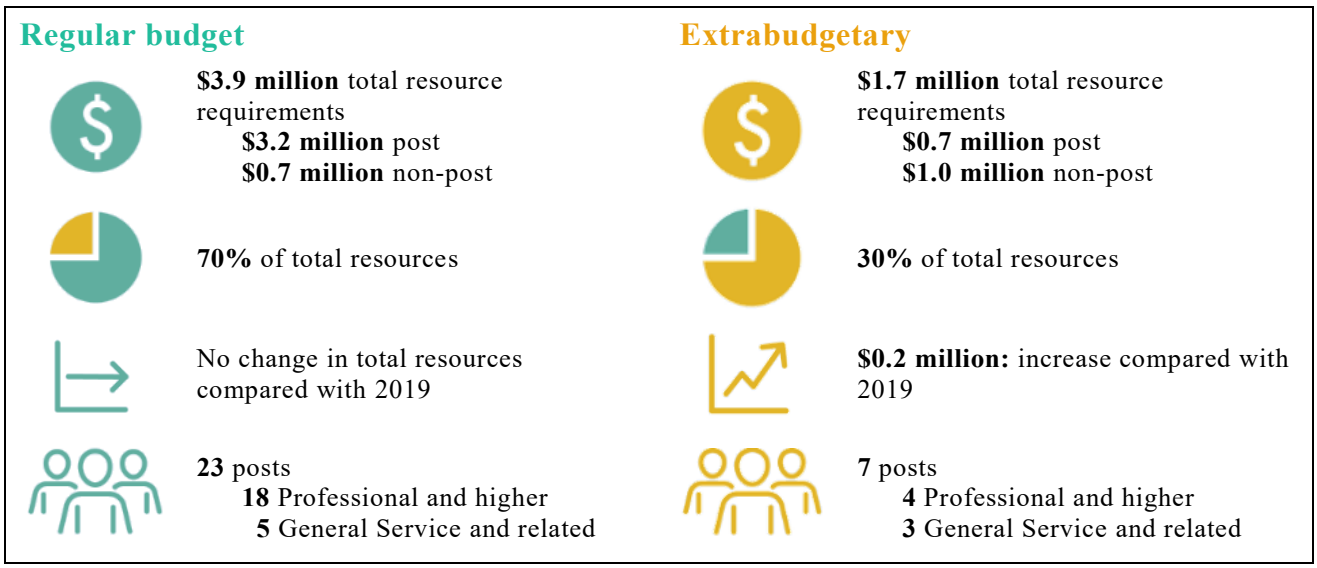
6.28 The variance in technical materials is driven mainly by the increase in the number of submissions expected from Member States, owing to the increase in the number of planned satellite launches.

B. Proposed post and non-post resource requirements for 2020

Overview

6.29 The total resource requirements for 2020, comprising the regular budget and projected extrabudgetary resources, are reflected in figure 6.I and table 6.2.

Figure 6.I
2020 in numbers



Note: Estimates before recosting.

Table 6.2
Overview of financial and post resources by component and by funding source
(Thousands of United States dollars/number of posts)

	Regular budget			*Extrabudgetary*[a]			*Total*		
	2019 appropriation	*2020 estimates (before recosting)*	*Variance*	*2019 estimate*	*2020 estimate*	*Variance*	*2019 estimate*	*2020 estimate*	*Variance*
Financial resources									
Programme of work	3 914.3	3 914.3	–	1 454.1	1 679.3	225.2	5 368.4	5 593.6	225.2
Post resources									
Programme of work	23	23	–	7	7	–	30	30	–

[a] Excludes Junior Professional Officers and positions on a non-reimbursable loan.

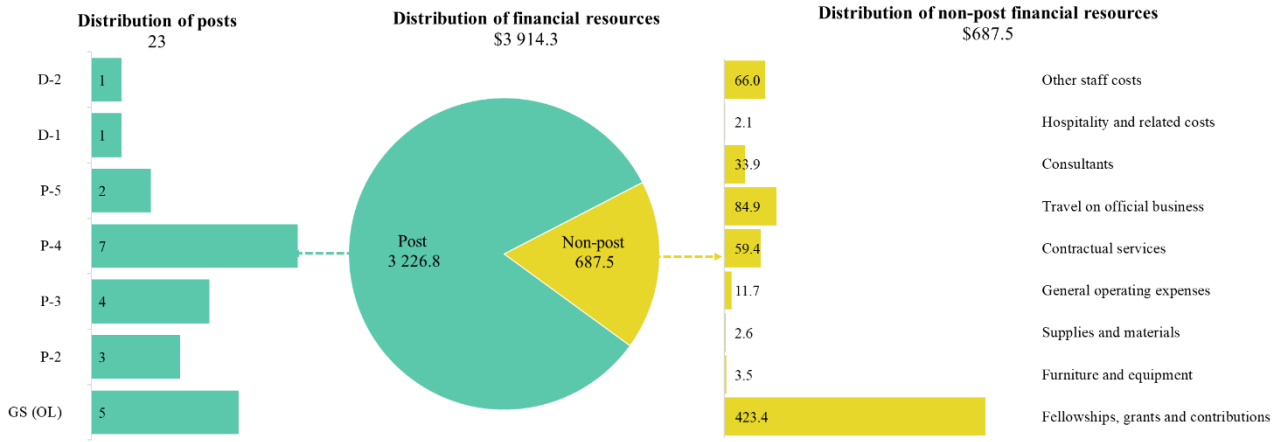
Programme of work

6.30 The proposed regular budget resources for 2020 amount to $3,914,300 before recosting. Additional details are reflected in table 6.3 and figure 6.II. The proposed resource level provides for the full, efficient and effective implementation of mandates.

Table 6.3
Programme of work: evolution of financial and post resources
(Thousands of United States dollars/number of posts)

	2018 expenditure	*2019 appropriation*	*Changes*					*2020 estimate (before recosting)*	*Recosting*	*2020 estimate (after recosting)*
			Technical adjustments	*New/ expanded mandates*	*Other*	*Total*	*Percentage*			
Financial resources by main category of expenditure										
Post	3 331.3	3 226.8	–	–	–	–	–	3 226.8	229.3	3 456.1
Non-post	521.5	687.5	–	–	–	–	–	687.5	11.1	698.6
Total	**3 852.8**	**3 914.3**	**–**	**–**	**–**	**–**	**–**	**3 914.3**	**240.4**	**4 154.7**
Post resources by category										
Professional and higher		18	–	–	–	–	–	18		
General Service and related		5	–	–	–	–	–	5		
Total		**23**	**–**	**–**	**–**	**–**	**–**	**23**		

Figure 6.II
Programme of work: distribution of proposed resources for 2020 (before recosting)
(Number of posts/thousands of United States dollars)



Abbreviations: GS (OL), General Service (Other level).

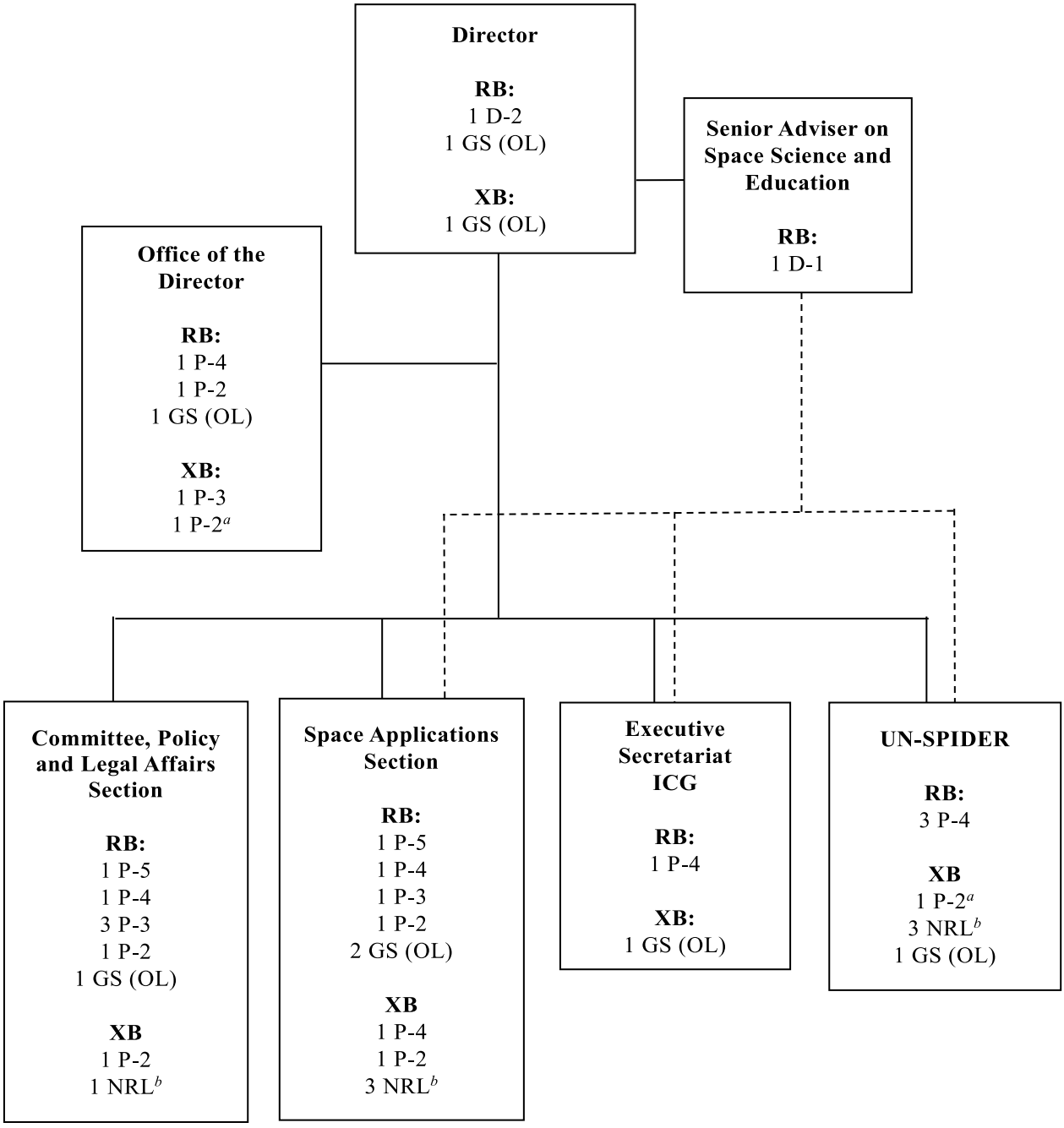
6.31 The presentation of organizational structure in the annex has been revised compared with the programme budget proposals for the period 2018–2019, to depict more clearly the different areas of work carried out by the Office and the positions associated with each of the main responsibilities referenced in paragraph 6.3 above. The Office comprises six sections: (a) the Office of the Director provides overall guidance and support on the administrative, organizational, budgetary and human resources needs of the Office, maintains the Register of Objects Launched into Outer Space and leads the external relations and public information activities of the Office, including the coordination of its communications, public affairs, partnerships and advocacy matters; (b) the Committee, Policy and Legal Affairs Section services the annual sessions of the Committee on the Peaceful Uses of Outer Space, its Legal Subcommittee and Scientific and Technical Subcommittee, as well as their subsidiary bodies and the Working Group of the Whole of the Fourth Committee when it considers agenda items on the peaceful uses of outer space – the Section also coordinates and services the inter-agency meeting on outer space activities, serves as the secretariat for the space mission

planning advisory group and implements activities to build capacity in space law and policy; (c) the Space Applications Section implements the activities of the Programme on Space Applications, which includes building capacity in space science and technology, particularly in the priority areas of basic space sciences, basic space technology, human space technology and integrated space technology applications in the areas of global health, disaster management, climate change, humanitarian assistance, environmental monitoring and natural resource management; (d) the executive secretariat of the International Committee on Global Navigation Satellite Systems services the annual sessions and implements activities of that Committee and its Providers' Forum – the Committee itself promotes cooperation on matters related to civil satellite-based positioning, navigation, timing and value-added services; (e) the United Nations Platform for Space-based Information for Disaster Management and Emergency Response (UN-SPIDER) implements capacity-building and technical advisory support activities and provides universal access to all types of space-based information and services relevant to disaster management to support the full disaster management cycle; and (f) the Senior Adviser for Space Science and Education provides expert advice and support research for the activities and programmes implemented by the Space Applications Section, the executive secretariat of the International Committee on Global Navigation Satellite Systems and UN-SPIDER, and will also guide and support the United Nations-affiliated Regional Centres for Space Science and Technology Education, established in accordance with General Assembly resolution 50/27 and located in Brazil, China, India, Jordan Mexico, Morocco and Nigeria. These Sections will report directly to the Director.

6.32 Estimated extrabudgetary resources amounting to $1,679,300, as reflected in table 6.2, would supplement the resources available from the regular budget in implementing the planned programme of work. The increase of $225,200 is mainly due to the implementation by the Space Applications Section of the activities of UN-SPIDER and Space4Water Portal.

Annex

Organizational structure and post distribution for 2020



Abbreviations: GS (OL), General Service (Other level); ICG, International Committee on Global Navigation Satellite Systems; NRL, non-reimbursable loan; RB, regular budget; UN-SPIDER, United Nations Platform for Space-based Information for Disaster Management and Emergency Response; XB, extrabudgetary.

[a] Junior Professional Officer.

[b] Positions on non-reimbursable loan basis from the Brazilian Air Force, the China National Space Agency, the German Aerospace Centre, the Italian Space Agency, the Japan Aerospace Exploration Agency, the National Disaster Reduction Centre of China and other space-related international and national entities.