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Committee on the Peaceful Uses of Outer Space
Scientific and Technical Subcommittee
Fifty-seventh session
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Long-term sustainability of outer space activities

Voluntary Implementation of the Guidelines for the Long-term Sustainability of Outer Space Activities and Proposed Reporting Approach by the United Kingdom

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1. The United Kingdom are pleased to submit a proposal for consideration by the Committee on the Peaceful Uses of Outer Space's Scientific and Technical Subcommittee at its 57th session.
2. In 2010, the United Nation's Committee on the Peaceful Uses of Outer Space Scientific and Technical Subcommittee began considering the long-term sustainability of outer space. Ten years on and the UK welcomes the Committee's successful adoption of the preamble and 21 guidelines for the long-term sustainability of outer space activities at its 61st session.
3. Following the years of hard and exceptional work performed in developing the LTS guidelines, it is now time for them to be practically applied and tested. The UK were pleased to join consensus on a Committee report that encourages States and international intergovernmental organizations to voluntarily take measures to ensure that the guidelines are implemented to the greatest extent feasible and practicable.
4. It is the UK's strong belief that member states should now focus their efforts on not just implementing the guidelines, but sharing the approaches, practices and lessons learnt in doing so. For member states considering or in the process of similar voluntary implementation activities, the UK are keen and happy to engage and collaborate with them.
5. To facilitate this, the UK has drawn up a proposed format to report on the implementation activities of member states. The format enables reporting on :
    a. The approach adopted by member states on implementing individual guidelines
    b. Progress made against the adopted implementation approach and future national activities envisaged
    c. Lessons learnt and practices discovered during implementation, alongside any legal or technical support requirements identified.
6. By compiling and reviewing the experiences and lessons learned of all member states, intergovernmental organisations and industry in the implementation of the guidelines, we will have a much better understanding the practical steps that can be taken by the Committee,

UNOOSA and/or member states to mitigate the challenges to the safe and sustainable use of outer space environment.

7. The UK, through our voluntary update on implementation, in Annex 1 below, has provided a proposed reporting structure or template to Member States as a potential coordinated approach to start documenting their progress on implementation and/or stimulate discussions on reporting. An example template for individual guideline reporting is provided below.
8. To provide insight into how the template could be used by implementing parties, as responsible space actors; the proposed reporting template draws upon the tangible efforts made by the United Kingdom to implement the adopted guidelines..

Guideline	***Guideline summary***	***Nation***
Thoughts or approach to implementation	*This should be used to provide either the current thoughts on how member state intends to consider implementing this guideline or, if already underway, the current approach to implementing this guideline.*	
Current progress and/or proposed future activities	*This should be used to provide information on the current progress on the approach to implementation or this guideline if already underway, as well as future activities to either begin or continue implementation this guideline.*	
Experiences, challenges and lessons learnt	*This should be used to provide information on any relevant experience on the practical implementation of this guideline, including any new practices or procedures to enhance implementation, or details of lessons learnt, or challenges encountered or overcome.*	
Comments on specific needs for capacity building necessary to support implementation	*This should be used to provide information or comments on specific capacity building requirements that member states may have in order to assist in the implementation of this guideline.*	

ANNEX 1

A. Policy and regulatory framework for space activities

A.1	Adopt, revise and amend, as necessary, national regulatory frameworks for outer space activities	United Kingdom
Thoughts or approach to implementation	To implement this guidelines, the UK is using the introduction of the Space Industry Act 2018 (SIA) to develop the a revised regulatory framework for both launch from the UK, as well as licensing spacecraft operations.	
Current progress and/or proposed future activities	The Act was introduced into Parliament in June 2017 and received Royal Assent on 15 March 2018. It is currently being used as an opportunity to introduce or update regulations for outer space activities. Whilst the SIA is now part of UK law, its provisions still need to be brought into force, and most of the current work is in developing this guidance through use of appropriate legal and technical subject matter experts.	
Experiences, challenges and lessons learnt	This is still an ongoing activity	
Comments on specific needs for capacity building necessary to support implementation	The UK has had significant experience in developing a new regulatory framework, and are very happy to discuss our experiences with nations considering doing the same.	

A.3	Supervise national space activities	United Kingdom
Thoughts or approach to implementation	The UK's current approach to ensuring supervision of national space activities is present policy and underpinned through the current Outer Space Act 1986, requiring as part of law. In the future, the provisions for the SIA will look to reflect enhanced supervision of national space activities.	
Current progress and/or proposed future activities	Implementation is executed through the licensing function of the UK Space Agency through a rigorous license assessment process to ensure that missions meet key safety and sustainability criteria. The UK Space Agency has a licensing team comprised of regulatory and technical experts to perform license assessment of space activities. As missions become more complex, the UK is reconsidering its approach to supervision and the introduction of additional mission rules for reporting the health of the space mission. This includes the development of new quantitative assessment approaches to assess and ensure long term sustainability of activities.	
Experiences, challenges and lessons learnt	As space activities are becoming more complex, involving a greater number of international intergovernmental and industrial actors, it has required greater international coordination both during authorisation and supervision process. Ensuring long-term sustainability requires international agreed consensus on how this is defined.	
Comments on specific needs for capacity building necessary to support implementation	The UK has had experience in licensing and supervising national space activities and are very happy to discuss our experiences with nations considering doing the same, as well as explore specific enabling needs in capacity building.	

B. Safety of space operations

B.2	Improve accuracy of orbital data on space objects and enhance the practice and utility of sharing orbital information on space objects	United Kingdom
Thoughts or approach to implementation	The UK intend to practically implement this guideline partly through improvement to our access to capabilities for Space Surveillance and Tracking (SST).	
Current progress and/or proposed future activities	The UK is currently investing in a programme of reviewing our national SST capability, to identify capability gaps and improvements in support of UK object supervision and general space safety. This includes the development of new tools and capabilities to make better use of the data currently available.	
Experiences, challenges and lessons learnt	The use of common, internationally recognized standards to enable information exchange, which can be a potential barrier to collaboration.	
Comments on specific needs for capacity building necessary to support implementation	The UK welcome the opportunity to discuss collaborative approaches to improving the accuracy of orbital data and enhanced sharing of information.	

C. International cooperation, capacity-building and awareness

C.1	Promote and facilitate international cooperation in support of the long-term sustainability of outer space activities	United Kingdom
Thoughts or approach to implementation	The UK has a strong desire to foster international cooperation between nations to develop a coordinated approach to space sustainability. To achieve this the UK is an active participant of various international and national forums performing research into the space environment, such as the Inter-Agency Space Debris Coordination Committee (IADC).	
Current progress and/or proposed future activities	One route that the UK is taking is by supporting the advancement of the IADC. The IADC is comprised of 13 space agencies who are performing active research into space debris mitigation. The UK contributes to the technical research performed by the IADC which forms the basis of the guidelines and best practice which the committee develops to support and guide sustainable operations by all space actors.	
Experiences, challenges and lessons learnt	It is important that forums include appropriate inputs from public, private and academic sectors to ensure that correct conclusions are made.	
Comments on specific needs for capacity building necessary to support implementation	The UK welcomes the opportunity to discuss approaches to enhance international cooperation and capacity building.	

D. Scientific and technical research and development

D.1	Promote and support research into and the development of ways to support sustainable exploration and use of outer space	United Kingdom
Thoughts or approach to implementation	The UK seeks to continue implementation through continued support on the development of new technology, both through national programmes and projects overseen by the European Space Agency (ESA). Through both avenues there are opportunities to fund technology that seek to minimise the environmental impact of space assets throughout their lifecycle.	
Current progress and/or proposed future activities	As an example of current progress, through national investments the UK has supported the development of innovative “green” propulsion systems. In addition, through ESA the UK has led studies into a range of equipment that would improve the ability for a spacecraft to demise.	
Experiences, challenges and lessons learnt	It is important to consider and support the development of technologies that minimise the environmental impact of space activities throughout their lifecycle	
Comments on specific needs for capacity building necessary to support implementation	The UK welcomes the opportunity to discuss approaches and build partnerships on how this might be accomplished through-out the international community.	