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| **Council Expert Group onCouncil Decision 482****Third meeting – Geneva, 6-7 June 2019**  |  |
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|  | **Document EG-D482-3/2-E** |
| **21 May 2019** |
| **English only** |
| **United Arab Emirates** |
| Cost Recovery Mechanism for satellite filings contained in Decision 482 |

**Item 1: Complex NGSO Satellite Filings**

The United Arab Emirates (“UAE”), having considered the inputs to the previous CEG meetings, accepts that the processing of NGSO filings, particularly complex ones, requires additional resources by the Radiocommunication Bureau (“BR”) beyond those needed for the processing of typical NGSO networks. While an increase in costs for the processing of NGSO filings could be contemplated, the UAE has no opinion at this time in regards to the extent of such an increase or the mechanism by which it is applied.

In considering cost-recovery fees for NGSO systems, the UAE does note that small NGSO satellites are being built and launched on behalf of educational, research or non-profit organizations. These organizations receive limited funding that allows for the development by students and scientists of single-satellite or small constellation missions. The lack of financial resources available to these establishment places them on a different footing from large multinationals that are deploying multi-billion dollar constellations. For these large companies, the cost recovery charges are negligible compared to the constellation cost. For scientific establishments, any cost recovery fees stand to adversely impact their very limited budget.

A further point for consideration is that scientific and research institutions have limited staff with the necessary experience in regulatory matters, with the result that multiple experimental satellite deployments have already been launched without any submission to the ITU. Adding a financial obligation to an already complex regulatory submission stands to further reduce the compliance rate.

If Council decides to support a fee exemption for legitimate scientific/research NGSO constellations, it will be necessary to distinguish such systems from other types of NGSO deployments by using any combination of the following mechanisms:

1. Voluntary declaration (check box);
2. Individual satellite mass (e.g. 25 kg or less);
3. Constellation size (e.g. 50 satellites or less);
4. Limiting the additional cost recovery charges to key commercial bands (e.g. Ku and Ka band).

**Summary**

*The UAE is of the view that NGSO systems used for scientific and research purposes should be exempt from cost recovery fees.*

**Item 2: Complex GSO Satellite Filings**

As per the summary regarding the submission of complex GSO filings contained in the second meeting of the Expert Group[[1]](#footnote-1), the following view is put forward for consideration:

* The current UAE filings for GSO networks are typically less than 50k units.
* The UAE accepts the understanding of the BR that GSO satellite filings with high numbers of units are an exceptional situation. [[2]](#footnote-2) From the BR’s statistics, it can be seen that only 48 such “large” filings out of a total of 2485 have been received since 2008.[[3]](#footnote-3) The UAE also accepts that these filings can individually be disruptive of the BR workflow compared to other “average” filings.
* In assessing the extent of the disruption, at the second meeting of the Council Expert Group meeting, the BR pointed out that the most complex GSO filings received to date contained over 300,000 units and these filings took nine times the effort to complete compared to an average GSO filing.[[4]](#footnote-4) However, in following conversations with the BR, it was indicated that:
	+ A significant portion of the additional effort was a result of software modification that were necessary for the processing of this filing. This was a one-time software development effort that would not need to be repeated for future filing of comparable size.
	+ That the specific details of the filing in question led to multiple negative findings further requiring additional BR efforts.
* As these filings represents a unique situation, it cannot be assumed that a future large filing with 300k units or less will result in a nine-fold increase in BR workload. While the impact on the BR of a large GSO filing is greater than an average one, that impact is well below a factor of nine. The exact amount is presently unknown.
* The UAE notes that with the now completed update to the BR’s processing software tools, the very small number of very large filings appears to have had a limited adverse impact on the overall backlog of filings or the overall workload of the BR.
* The UAE also notes that even with the addition of a new break point for large GSO filings, the current small number of filings with high numbers of units can only have a minor impact to the total cost recovery fees collected.
* The UAE has had direct experience with the submission of large GSO filings to the ITU. Awareness of the issue through interaction with the BR as well as follow-up training has been critical in voluntarily addressing the matter.
* If a new breakpoint is implemented as has been proposed by some Administrations, it bears note that GSO operators may consequentially *increase* the complexity of their filings, both at the CR and Notification stage, so as to ensure the use of all the units to which they deem themselves to be entitled.
* If Council elects to implement a new breakpoint, GSO operators who accidentally create and submit an overly large filing may be unable or unwilling to pay the exceptionally high cost recovery fees (“bill shock”) that result.

Given the facts put forward, the UAE supports the following steps as a mechanism to assist in limiting the submission of GSO filings containing high numbers of units:

* Training via the WRS or RRS on the efficient design of GSO network filings that minimize the number of units while appropriately capturing a satellite network design.
* A software modification to the ITU’s Space Validation software that provides a caution message for GSO filings with exceptionally high numbers of units.
* An invitation by the BR via correspondence to any Administration submitting a GSO filing with an exceptional number of units to voluntarily revise its filing. (Doing so should not compromise the original date of receipt.)
* If the above steps are unsuccessful, the BR could consider placing a cap limiting the number of units that can be included in a single filing. (This would be no different than limits on test points in AP30/30A/30B or the number of contour points in GXT files).

**Summary**

*The UAE is of the view that GSO networks can be reasonably described with a moderate number of units and that filings with large numbers of units suggest a poorly designed filing. Imposing a new breakpoint will not remedy the problem, as the authors of the filing will not be aware of the issue until they receive a substantially higher bill from the ITU than expected. Instead of an additional breakpoint, the UAE supports increasing awareness of deficient filings by means such as error messages in SpaceVal or through heightened education at the WRS or RRS. The BR should also be encouraged and empowered to communicate directly with Administrations submitting poorly crafted filings in order to advise them on how to more efficiently capture the necessary technical details of their satellite filings.*

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1. See Document EG-D482-2/7 titled, “Draft Report of the Second Meeting of the Council Expert Group on Council Decision 482”, authored by the EG Chairman, dated 19 March 2018; Section 6. [↑](#footnote-ref-1)
2. See Document EG-D482-1/6-E titled “Information about Exceptionally Complex GSO Satellite Filings”from the Radiocommunications Bureau dated 25 Sept 2018, Section 2. “These satellite networks remain rare and therefore the word “exceptional” is accurate to characterize them. However, from a processing point of view, they have a disproportionate impact on the overall examination and publication process, because they require additional computing resources, increased human analysis and sometimes even software updates (design, implementation, tests, deployment). “ [↑](#footnote-ref-2)
3. See embedded table in Document EG-D482-1/6-E titled “Information about Exceptionally Complex GSO Satellite Filings”, from the Radiocommunications Bureau dated 25 Sept 2018. [↑](#footnote-ref-3)
4. Six such filings were received by the BR. [↑](#footnote-ref-4)