

Source: Iridium Satellite LLC

Title: Response to Ofcom Procedures for the management of satellite filings

Date: 10th July 2015

Iridium has managed satellite filings through the Government of Bermuda, and by extension Ofcom, since 2007. We therefore have experience of satisfying the procedures and requirements of the due diligence process in its current form.

We support Ofcom's objectives to improve the filing process, but the consultation does not indicate the potential failings in the current system that are being targeted. The greatest challenge in the coordination of a new satellite filing is primarily the very large number of other filings, both operational and on paper, with which technical compatibility must be examined. Whilst the UK is responsible for a number of filings in progress through the system, we believe that any change on the part of the UK alone will have limited impact on the overall burden at the ITU.

Within the UK, Iridium would support a review of the filing process with a view to reducing regulatory burden, streamlining processes wherever possible and assisting satellite operators in the UK and its dependent territories to develop satellite projects. However, a much greater benefit would be realized by a robust approach from the UK toward the international process to improve access to spectrum and reduce the unnecessary and inefficient warehousing of satellite spectrum capacity.

Question 1) Do you have any comments on our proposals to

- include additional milestones to provide evidence that the satellite project is on-going and that its frequency assignments will be brought into use within the seven year regulatory period;
- clarify what evidence we will accept to demonstrate milestones have been completed, and
- set specific deadlines for milestones?

Do you have any comments on how these changes are worded in the proposed revised Procedures?

Iridium believes that existing procedures, if correctly applied, can achieve all of the improvements that Ofcom wishes without creating an additional burden on operators. Additional milestones are unnecessary to demonstrate that the satellite project is progressing, and that its frequency assignments will be brought into use within the prescribed period. Ofcom must observe Resolution 49 (WRC-12) but there is no further international obligation to meet, and Res 49 itself can be satisfied under the current procedures. Regulatory burden on business, both large and small, must be a key consideration and Ofcom must consider the impact of their proposals in this light. If the procedures for filing through the UK become unnecessarily burdensome, businesses in the UK and dependent territories will be at a competitive disadvantage.

Iridium operates a constellation of satellites in non-geostationary orbit, and is planning to deploy further satellites within the coming years. Satellite procurement contracts can be extremely complex, and contain material that may be both commercially sensitive and security-restricted. The elements required for Ofcom to conduct its diligence and demonstrate compliance with Res 49 can be provided much more efficiently under the existing regime. The addition of a new milestone concerning the critical design review is also unnecessary in our view. The timing and existence of such a review are sufficient to demonstrate that the satellite is progressing towards completion, but technical details of the review are superfluous to Ofcom's requirements.

In respect of earth-station and TT&C requirements, the Iridium non-geostationary networks are already served by a global ground network. For a start-up operator, it may not be a major undertaking to engage an earth station operator to serve as the feeder-link infrastructure. A requirement to show this achievement therefore provides no useful additional information or security that the filing is being brought into use.

*Question 2) Do you have any comments on our proposals to clarify the information required when there is a change to the business plan?
Do you have any comments on how these changes are worded in the proposed revised Procedures?*

Iridium offers no comment.

*Question 3) Do you have any comments on our proposed changes to the reporting requirements illustrated in paragraphs 4.18 – 4.25 above?
Do you have any comments on how these changes are worded in the proposed revised Procedures?*

As several operators have already pointed out, this additional information is unnecessary to comply with Ofcom obligations to the ITU.

Ofcom has suggested that the operator "...provide immediate reports of changes to the business plan ... which cause a material change to the project plan (before BIU) or the operational status of the filing (after BIU)...". The current reporting requirement already provides sufficient information to identify any significant changes as the project progresses. It is usual that the commercial development and frequency coordination negotiations progress in parallel during most satellite projects, and their trajectories can be predicted only very approximately at the outset of the project. Creating additional milestones does not seem to add any further clarity to the due diligence process, but does add to the burden placed on the operator. Ofcom may not have sufficient commercial expertise or authority to assess the relative commercial value of one business plan over another in order to benefit from such information. Moreover, the commercial viability of projects that seek to develop new markets cannot ultimately be judged until the satellite is in operation and the services are available. Perhaps a much better measure is to assess the financing that has been assigned to the project, noting that financial

institutions will have greater expertise and experience than Ofcom in assessing the commercial viability and risk of a satellite project.

Ofcom indicates that, once the satellite is brought into operation, it will seek information on “...*what operational or testing activities have been undertaken to show that the satellite is capable of operating on the frequencies notified or brought into use.*” Whilst it is clearly a regulatory requirement that the satellite has the capability to use all assignments that are to be notified to the BR, this can be done by reference to the satellite build specification and to a simple statement by the operator that all capabilities are functional in orbit. The actual process of testing is immaterial provided that the satellite has the necessary capabilities once in orbit.

The annual reporting proposed by Ofcom, to assess ongoing operations of a satellite in orbit, also appear entirely unnecessarily detailed. “[I]nformation about the operational health and status of the spacecraft in orbit” should be satisfied with the simple statement that the satellite is still in-orbit and operational, and where this is not the case, further information can be sought. “[S]ervices being offered on each transponder, highlighting and explaining any activity changes over the year” seeks information that is commercially-sensitive, where Ofcom should simply be seeking confirmation that the frequencies and beams are still available for operation as detailed in the notification. (In practice, services and customers can change many times over a year for some types of satellite service such as short-term leasing.) “[I]nformation related to the ground segment” should be limited to the notification of Ofcom if any changes to the network control capabilities have taken place.

Overall, we believe that these changes would place an unnecessary additional regulatory burden on satellite operators, and we do not agree that they are necessary or beneficial to the good governance of satellite filings.

Question 4) Do you have any comments on our proposal that a request for notification under No. 11.41 must be supported by evidence of efforts to coordinate with the other operator(s)/administration(s)?
Do you have any comments on how these changes are worded in the proposed revised Procedures?

Iridium supports the idea that some effort should be made to achieve coordination before attempting to notify a network using No.11.41. We suggest, however, that Ofcom specifies what would constitute such efforts, such as the issuing of requests for coordination or a technical assessment with other higher-priority networks.

Question 5) Do you have any comments on our proposal to clarify the Procedures to set out that we may, at our discretion, allow UK satellite networks with junior filings to be notified to the ITU without requiring completion of all frequency coordination with UK networks having senior filings, and the conditions on which we would proceed with notification in such cases?
Do you have any comments on how these changes are worded in the proposed revised

Procedures?

Iridium would support Ofcom's proposal on procedures for notification where coordination between UK operators has not been completed, provided that suitable effort had been made to do so by the operator of the junior filing. We do not believe that it would be appropriate in all cases, however, such as where a junior filing has not made effective assessments or proposals to resolve coordination with the senior filing. We would therefore suggest that Ofcom oblige both affected (senior) operators and the applicant (junior) operator to attend a review before deciding on such a course of action.

*Question 6) Do you have any comments on our proposal to change the text of the Procedures to clarify that, in order to make the declaration of bringing into use for GSO networks, we may require a range of information from the operator, including that set out in CR/343?
Do you have any comments on how these changes are worded in the proposed revised Procedures?*

Iridium offers no comment on this proposal.

*Question 7) Do you have any comments on our proposals that, for non-GSO systems, operators are asked to indicate, at CR/C stage, the minimum number of satellites needed to be deployed in order to provide the intended service to at least the declared minimum quality of service, and that this information (i.e., the minimum number of launched satellites) is used to verify that the system has been brought into use?
Do you have any comments on how these changes are worded in the proposed revised Procedures?*

Iridium believes it is an unnecessary requirement to specify the minimum number of satellites. Experience has shown that some non-geostationary networks may never be fully deployed, but can be made commercially viable by modifying the operation or the services to be provided. Given that non-geostationary networks are not constrained by the same congestion problems that geostationary networks face, it is unclear to Iridium what problem exists that requires resolution with such a procedure.

*Question 8) Do you have any comments on our proposal to include provisions in the Procedures for the transfer of an application at API stage, subject to certain conditions being met?
Do you have any comments on how these changes are worded in the proposed revised Procedures?*

Iridium would support the deletion of the API stage entirely, in order to remove unnecessary regulatory steps. However, we recognize that such a step requires change by a World Radiocommunication Conference.

*Question 9) Do you have any comments on our proposals to set out the requirements on operators and the consequent actions that we may take in cases where assignments are no longer in use?
Do you have any comments on how these changes are worded in the proposed revised Procedures?*

Iridium agrees that filings that are no longer “in use” should be removed to reduce filing congestion. However, we note that in the Radio Regulations, “in use” is not well defined. In particular, a satellite may have the capability of using a given assignment but may not use it continuously, but the current Regulations and Rules of Procedure suggest that the satellite must simply have the capability of using the assignment. For the purposes of Ofcom’s due diligence, the criteria do not need to be any more complex than the presence of a satellite in the filed orbit or GSO location, and the correct functioning of that satellite. We would therefore suggest that Ofcom deletes assignments or filings only where a satellite has been moved, disposed into graveyard orbit or has functionally failed.