

GSO/NGSO sharing and the future of EPFD limits in the Ku & Ka bands

Protecting vital services, enabling more efficient spectrum use

Martin Fenton, Ofcom

4 September 2026

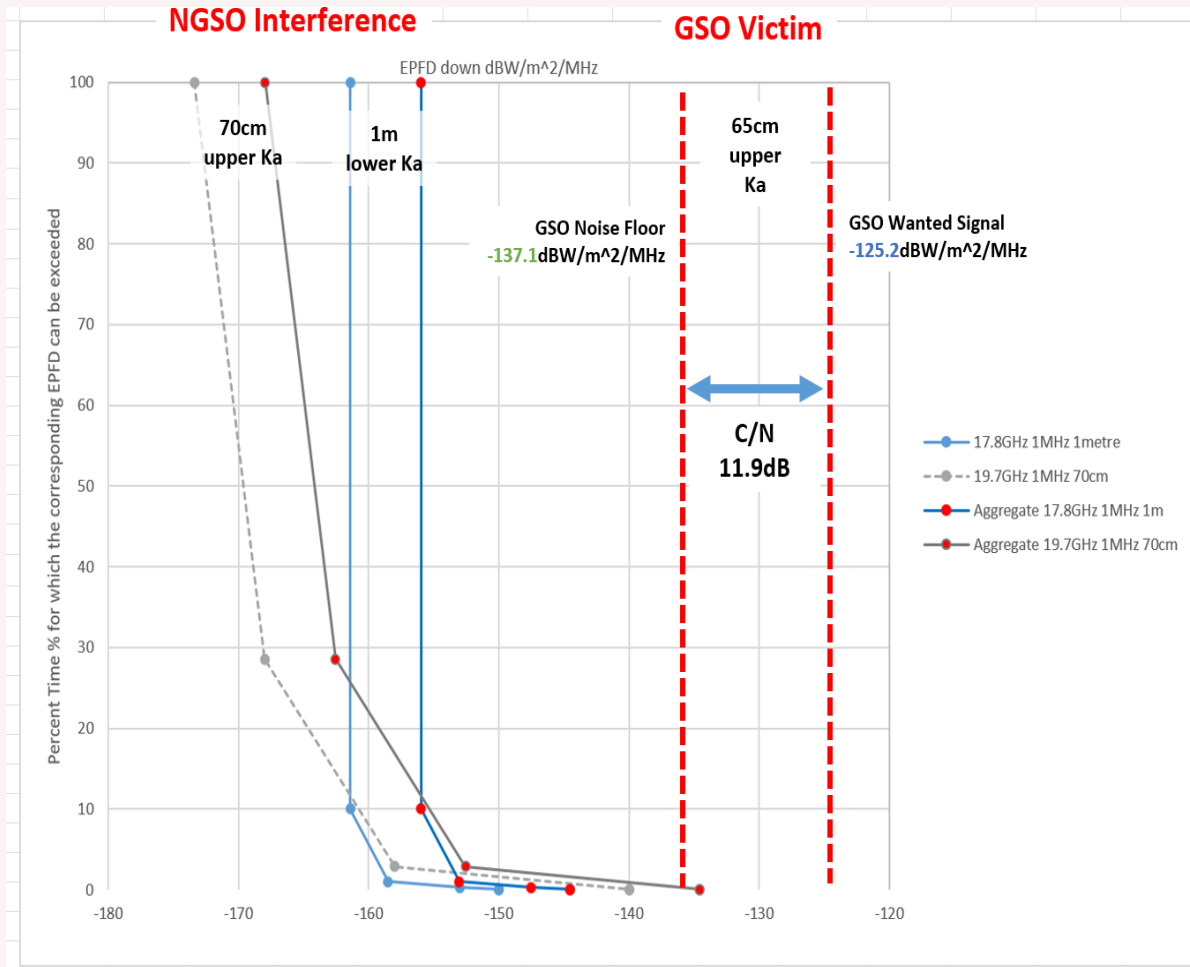


The EPFD framework has served an important purpose, but the context has changed

- **WRC-23 invited technical studies of the Article 22 EPFD limits**, to ensure continued protection of GSO FSS and BSS networks and inform WRC-27, without regulatory consequences.
- **NGSO operators see a clear case for change**, and the questions raised merit objective examination.
- The current rules have provided important protection, but **arrangements developed more than 25 years ago should remain open to evidence-based review**.
- Any future regime should continue to **protect important services while supporting efficient spectrum use and positive consumer and competition outcomes**.

There is a case for exploring the issue – but securing effective reform will be challenging

Illustrative example for a typical GSO VSAT case



Clear sky illustration – does not account for rain fade and other effects

- For a typical GSO system, there may potentially be material protection margin in existing rules
- But it's not the same for every system, margins vary and aggregation complicates matters
- We support further study – an appropriately scoped WRC-31 agenda item may be needed
- Targeted progress may be possible sooner, including updates to Recommendation ITU-R S.1503 and review of the upper Ka-band limits

Questions informing our work

Targeted opportunities for **early progress**?

- **Upper Ka band:** are the tighter limits in upper Ka compared with lower Ka supported by current evidence?
- **S.1503 parameters:** can satellite selection criteria, victim antenna patterns and other modelling parameters be updated?
- **Reference links:** do the assumed GSO reference links remain representative?
- **Aggregation:** improve the practicality of assessment, measurement and enforcement

Longer term (WRC-31)?

- A holistic review of the current EPFD regime?
- Is an EPFD approach still appropriate? What credible alternatives exist?
- Can protection be better targeted across bands and services?
- How could any transition be managed?

Building evidence

- Contributing to WP 4A and wider WRC discussions
- Engaging industry on benefits risks and possible areas of consensus
- Working with Government on public sector needs and protection requirements
- Collaboration with academia (Joiner) on modelling and emulation.
- Using our monitoring facilities to inform policy development

Principles for any future framework

- **Appropriate protection:** continues to protect important GSO services, using realistic assumptions and taking account of overall spectrum efficiency.
- **Enforceable:** rules that are clear, measurable and enforceable across multiple NGSO systems.
- **Predictable:** provides upfront certainty rather than relying principally on detecting interference and mitigating it afterwards.
- **Innovation friendly:** avoids unnecessary constraints on NGSO capacity, service quality and competition.
- **Updatable:** provides investment certainty while allowing the opportunity to be reviewed as technology and markets evolve.
- **Internationally coherent:** retains the benefits of a global framework and minimises fragmentation and operational complexities.

Questions?