

Press release

FREQUENCIES

Arcep specifies the rules enabling the coexistence of 5G networks and fixed satellite services in Metropolitan France (3.4 – 3.8 GHz and 3.8 – 4.2 GHz bands)

Paris, 16 September 2022

Arcep Decision No. 2022-1062, published in the *Journal Officiel* of 16 September 2022, seeks to prevent potentially harmful interference that 5G mobile networks – which are currently being deployed in the 3.4 – 3.8 GHz band – are likely to cause for fixed satellite service (FSS) earth stations operating in the 3.8 – 4.2 GHz band. To enable the coexistence between these two services, today Arcep is specifying the technical conditions imposed on operators using the 3.4 – 3.8 GHz band, to protect earth stations and provide clarity for existing and future fixed satellite service earth stations in the 3.4 – 4.2 GHz bands.

Following through on a public consultation, the Arcep Decision details the electric field strength obligations imposed on operators

To prevent interference with other frequency bands, licences to use frequencies in the $3.4-3.8\,\mathrm{GHz}$ band – awarded by Arcep in November 2020 for Metropolitan France – stipulate an obligation for mobile operators to take the necessary measures to comply with set transmit levels. The frequency licences also stipulate that these obligations could, in future, be made more specific. The additional details regarding obligations to comply with set electric field strengths and the timeline for enforcing these obligations follow through on the related public consultation that ran from 27 July to 29 October 2021. All of the contributions received are also being published today.

As stipulated in the Decision being published today, every existing earth station is qualified according to its impact on 5G deployment in the 3.4 - 3.8 GHz band: high or moderate impact.

Arcep intends to satisfy the need for clarity, for existing and future earth stations

• Existing earth stations' qualification will be reassessed every five years

If an earth station were to be requalified as a high-impact station following this reassessment, existing licences' protection guarantees will remain unchanged for five years. Which provides earth stations with clarity going forward.

There are two possible scenarios depending on the expiration date of the frequency licence of the requalified earth station:

- If the frequency licence is set to expire before the five-year period is up, the guarantees will be maintained for five years;
- If the frequency licence is set to expire after the five-year period is up, the guarantees will be maintained until the licence expires.

The award of new frequency licences, for existing and future earth stations, will depend on their degree of impact on 5G deployment

To facilitate the deployment of 5G networks in the 3.4-3.8 GHz band, and in accordance with the objectives of efficient use and management of radio frequencies, as well as to promote connectivity, access to high-capacity networks and these networks' penetration levels, when examining applications for licences to use frequencies in the 3.8-4.2 GHz band for fixed satellite services (including licence renewals), the restrictions that protecting earth stations creates for 5G network deployments in the 3.4-3.8 GHz band will be taken into consideration.

Arcep therefore plans on awarding these licences based on their degree of impact on 5G deployment in the 3.4 - 3.8 GHz band:

- For high-impact FSS stations: new licences will be awarded provided the earth stations do not create additional protection-related restrictions in terms of electric field strength limits and/or protection timelines (as defined in Arcep Decision No. 2022-1062);
- For moderate impact FSS stations: new licences will be awarded and carry technical protection conditions provided already deployed 5G cell sites do not require substantial alterations to comply with these same technical protection conditions.

Associated documents:

- Arcep Decision No. 2022-1062 of 19 May 2022 on the rules enabling the coexistence of 5G networks in the 3.4 3.8 GHz band and fixed satellite service earth stations in the 3.8 4.2 GHz band
- Order of 9 September 2022 regarding the technical terms and conditions for using 3.4 3.8 GHz band frequencies
- Contributions to the public consultation held by Arcep from 27 July 2021 to 29 October 2021 on the rules allowing for the coexistence of 5G networks in the 3.4 3.8 GHz band and fixed satellite service earth stations in the 3.4 4.2 GHz band in Metropolitan France.

Arcep at a glance

The Regulatory Authority for Electronic Communications, Postal Affairs and Print Media Distribution (Arcep), a neutral and expert arbitrator with the status of independent administrative authority (IAA), is the architect and guardian of internet, fixed and mobile communications and postal networks in France.

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