## NATIONAL TELECOMMUNICATIONS AGENCY

ACT No. 9064, OF JUNE 28, 2022

THE SUPERINTENDENT OF GRANTING AND RESOURCES TO THE PROVISION OF THE NATIONAL TELECOMMUNICATIONS AGENCY, in the use of his powers, in accordance with the provisions of art. 156, and items, of Anatel's Internal Regulations, approved by Resolution No. 612, of April 29, 2013, and

CONSIDERING the provisions of art. 19, item VIII, of Law No. 9,472, of 1997, in which Anatel is responsible for managing the radio frequency spectrum and the use of orbits, issuing the respective rules;

CONSIDERING the provisions of art. 161 of Law No. 9,472, of 1997, which determines that, at any time, the allocation of radio frequencies or bands may be modified, as well as ordering to change powers or other technical characteristics, provided that the public interest or compliance with conventions or international treaties so determine;

CONSIDERING Anatel's competence to regulate the efficient and adequate use of the spectrum, restricting the use or modifying the destination of certain radio frequencies or bands;

CONSIDERING what is established in the Spectrum Management Model, approved by Decision No. 651, of November 1, 2018, which provides that conditions for the use of radio frequencies, such as channeling, power limits and other specific technical conditions, aimed at coexistence between the services and the efficient and appropriate use of the spectrum, when necessary, are dealt with within the scope of the Superintendence of Granting and Resources for Provision through the edition of Acts of Technical Requirements (of Spectrum Use Conditions);

CONSIDERING the provisions of Resolution No. 711, of May 28, 2019, modified by Resolution No. 742, of March 1, 2021;

CONSIDERING the technological evolution, which can facilitate the use of Active Antenna System (AAS - Active Antenna System), including MIMO (Multiple Input Multiple Output) and beamforming techniques, to support broadband applications with the more efficient use of spectrum;

WHEREAS the first decision for the identification of the 3.5 GHz band for the IMT (International Mobile Telecommunications) took place at the World Radiocommunication Conference 2007 (WRC-07), identifying the band from 3.4 GHz to 3.6 GHz for its use, and at WRC-15 there was the identification for IMT of the bands from 3.3 GHz to 3.4 GHz and 3.6 GHz to 3.7 GHz;

WHEREAS the radio altimeters operate under the Aeronautical Radionavigation Service, which is classified as a Safety Service, pursuant to article 4.10 of the ITU Radio Regulations;

CONSIDERING the spectral separation existing between commercial fifth-generation mobile systems in Brazil and the radio altimeters used in commercial aviation;

CONSIDERING the meetings between Anatel and the National Civil Aviation Agency - ANAC to discuss the operation of 5G systems in Brazil and radio altimeters;

CONSIDERING the list of airports that have approach procedures in low visibility conditions that depend on the radar altimeter, as informed by the Department of Air Space Control - DECEA;

CONSIDERING the contributions received as a result of Public Consultation No. 36, of May 20, 2022, published in the Official Gazette of May 23, 2022; and,

CONSIDERING that contained in the case file No. 53500.044664/2022-20;

## **RESOLVES:**

- Art. 1 To establish, on a provisional and precautionary basis, that the main beams of the antennas used in base, nodal or repeater stations operating in the sub-band from 3,300 MHz to 3,700 MHz, installed in the areas close to the aerodromes specified in the Annex, have their appointment limited between the horizon line and below.
- § 1 The area referred to in the above is limited by the rectangle comprised by the following distances:
- I 2100 meters from the runway ends used for landing and take-off; and
- II 910 meters on each side of the central axis of the runway.
- § 2 The pointing limit provided for in the above applies to both AAS and non-AAS antennas.
- § 3 The location of a base station, nodal or repeater must be referenced from the geographic coordinate of the base of the antenna support infrastructure.
- Art. 2 For the base station, nodal or repeater installed in the areas defined in § 1 of art. 1, the maximum power (e.i.r.p.), by polarization, must be limited to:
- I 67 dBm/100 MHz, when operating in the 3,300 MHz to 3,600 MHz sub-band; or
- II 65 dBm/100 MHz, when operating in the subband above 3,600 MHz.
- Art. 3 The rules established by this Act will be reviewed until December 31, 2022, considering the evolution of the matter at the national and international level.
- Art. 4 This Act enters into force on the date of its publication in Anatel's Electronic Service Bulletin.