RECOMMENDATION 206 (REV.WRC-23)

Studies on the possible use of integrated mobile-satellite service and ground component systems in the frequency bands 1 525-1 544 MHz, 1 545-1 559 MHz, 1 626.5-1 645.5 MHz and 1 646.5-1 660.5 MHz

The World Radiocommunication Conference (Dubai, 2023),

considering

a) that mobile-satellite service (MSS) systems may provide service to a wide area;

b) that integrated MSS systems employ a satellite component and a ground component where the ground component is complementary to the satellite component and operates as, and is, an integral part of the MSS system. In such systems, the ground component is controlled by the satellite resource and network management system. Further, the ground component uses the same portions of MSS frequency bands as the associated operational mobile-satellite system;

c) that MSS systems have a limited capacity for providing reliable radiocommunication services in urban areas on account of natural or man-made obstacles and that the ground component of an integrated MSS system can mitigate blockage areas, as well as allow for indoor service coverage;

d) that MSS systems can improve coverage of rural areas, thus being one element that can bridge the digital divide in terms of geography;

e) that MSS systems are suitable for public protection and disaster relief communications, as stated in Resolution **646 (Rev.WRC-19)**;

f) that the frequency bands 1 525-1 544 MHz, 1 545-1 559 MHz, 1 626.5-1 645.5 MHz and 1 646.5-1 660.5 MHz are allocated on a primary basis to the mobile-satellite service and to other services but that none of these bands are allocated to the mobile service on a primary basis except by country footnote;

g) that within their territories in some of the frequency bands identified in *considering f)*, some administrations have authorized or plan to authorize integrated MSS systems;

h) that ITU-R has performed frequency sharing studies and has determined that the coexistence between independent systems in the MSS and systems in the mobile services in the same spectrum without harmful interference is not feasible in the same or adjacent geographical area,

recognizing

a) that ITU-R has not performed studies on sharing, technical or regulatory issues with regard to integrated MSS systems, but that some administrations have performed such studies;

b) that the radionavigation-satellite service in the 1 559-1 610 MHz band and the radio astronomy service in the frequency bands 1 610.6-1 613.8 MHz and 1 660-1 670 MHz need to be protected from harmful interference;

c) that the MSS in the 1 525-1 559 MHz and 1 626.5-1 660.5 MHz bands needs to be protected from harmful interference that may be caused due to co-channel and/or adjacent channel operation of the ground component of integrated MSS systems;

d) that Nos. **5.353A** and **5.357A** are applicable to MSS systems in different portions of the frequency bands 1 525-1 559 MHz and 1 626.5-1 660.5 MHz with respect to the spectrum requirements and prioritization of communications for the Global Maritime Distress and Safety System and the aeronautical mobile-satellite (R) service;

e) that, subject to satisfactory measures being taken to protect RNSS systems, integrated MSS systems may be deployed in the 1 980-2 010 MHz, 2 170-2 200 MHz, 2 483.5-2 500 MHz bands in all three Regions and also in the 2 010-2 025 MHz band in Region 2, all of which bands are allocated both to the MSS and MS services, without the need for ITU-R studies,

noting

a) that the combined wide-area and urban coverage capabilities of integrated MSS systems may contribute to meeting the particular needs of developing countries;

b) that some administrations that are planning to implement or are implementing integrated systems within their national territories have imposed limitations, in rules and authorization actions, on the e.i.r.p. density that the ground component of such systems may produce into bands allocated to the radionavigation-satellite service;

c) that there are a limited number of frequency bands allocated to the MSS, that these bands are already congested, and that the introduction of integrated ground components may in some instances make spectrum access for other MSS systems more difficult;

d) that administrations implementing integrated MSS systems may provide, in bilateral consultations of administrations, information on system characteristics of the ground component,

recommends

to invite ITU-R to conduct studies on the possible use of integrated MSS systems in the frequency bands 1 525-1 544 MHz, 1 545-1 559 MHz, 1 626.5-1 645.5 MHz and 1 646.5-1 660.5 MHz, as appropriate, taking into account the need to protect existing and planned systems, as well as the above *considering*, *recognizing* and *noting*, and in particular *recognizing a)*, *b)* and *c)*,

invites administrations

to participate as necessary in the ITU-R studies taking into account *recognizing a)*.