

Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of )
IRIDIUM COMMUNICATIONS, INC. ) WT Docket No. 19-280
Petition for Waiver to Permit Use of Iridium )
Service to Meet GMDSS Requirements )

ORDER

Adopted: December 26, 2019

Released: December 27, 2019

By the Deputy Chief, Mobility Division, Wireless Telecommunications Bureau:

1. Introduction. We have before us a petition filed by Iridium Communications, Inc. (Iridium) for waiver of several part 80 rules to permit vessels to select Iridium for the provision of Global Maritime Distress and Safety System (GMDSS) mobile satellite service. For the reasons discussed below, we grant the request subject to certain conditions.

2. Background. The GMDSS is "[a]n International Maritime Organization (IMO) worldwide coordinated maritime distress system designed to provide the rapid transfer of distress messages from vessels in distress to units best suited for giving or coordinating assistance." Until recently, Inmarsat, Inc. (Inmarsat) was the sole mobile satellite service operator recognized by the IMO to provide GMDSS mobile satellite service, and the part 80 rules require certain vessels to carry an Inmarsat ship earth station. The IMO, however, recently recognized Iridium as a second provider of maritime distress and safety communications within the GMDSS, and amendments to the International Convention for the Safety of Life at Sea (Safety Convention) that allow Iridium equipment to be carried in satisfaction of the GMDSS requirements will go into effect on January 1, 2020. In addition, the International Mobile Satellite Organization (IMSO) issued a Letter of Compliance on December 19, 2019, verifying that Iridium is ready to begin providing its GMDSS service. Iridium expects to make GMDSS terminals available to vessel operators in early 2020.

3. Iridium seeks waivers of part 80 rules that require or reference the use of equipment that communicates with Inmarsat satellites, specify the frequency bands in which Inmarsat satellites operate as the frequencies in which satellite GMDSS service should be provided, and limit GMDSS mobile satellite

1 Petition for Waiver of Certain Part 80 Rules Concerning Iridium's Provision of GMDSS (filed Sept. 6, 2019) (Petition).

2 47 CFR § 80.5.

3 Amendment of Part 2 of the Commission's Rules to Allocate Spectrum for Mobile-Satellite Services in the 1530-1544 MHz and 1626.5-1645.5 MHz Bands, Notice of Proposed Rule Making, 5 FCC Rcd 1255, 1258, para. 27 (1990); Robert M. Franklin, Transferor; Inmarsat, PLC, Transferee, Memorandum Opinion and Order and Declaratory Ruling, 24 FCC Rcd 449, 466, para. 40, n.110 (IB 2009).

4 See Recognition of Maritime Mobile Satellite Services Provided by Iridium Satellite LLC, IMO Maritime Safety Committee Res. MSC.451(99) (adopted May 24, 2018).

5 See Petition at 5.

operations to areas covered by Inmarsat.<sup>6</sup> The waivers it seeks would permit Iridium to provide GMDSS mobile satellite service and permit vessels to select Iridium for the provision of mobile satellite service for which our rules currently specify Inmarsat. Iridium notes that the Commission has before it a petition for rulemaking filed by the Radio Technical Commission for Maritime Services (RTCM),<sup>7</sup> which recommends, *inter alia*, that part 80 be amended to replace the references to Inmarsat with provisions permitting vessels to obtain GMDSS mobile satellite service from any IMO-recognized provider.<sup>8</sup> Iridium supports that recommendation, but requests waiver relief so that vessels may use Iridium for GMDSS mobile satellite service pending resolution of that proceeding.<sup>9</sup>

4. Iridium asserts that grant of the requested waivers would serve the public interest “by bringing additional competition to the GMDSS and maritime marketplace and by providing ships with access to new safety of life services—including in areas where no satellite-based GMDSS exists today.”<sup>10</sup> Iridium adds that the waivers would not undermine the part 80 rules but would be consistent with their purpose of promoting maritime safety.<sup>11</sup> In response to the Wireless Telecommunications Bureau’s public notice seeking comment on Iridium’s waiver request, RTCM and Inmarsat filed comments and the United States Coast Guard (Coast Guard), Ligado Networks LLC (Ligado), and Iridium filed reply comments.<sup>12</sup>

5. *Discussion.* To obtain a waiver of the Commission’s rules, a petitioner must demonstrate either that: (a) the underlying purpose of the rule(s) would not be served or would be frustrated by application to the instant case, and that a grant of the requested waiver would be in the public interest; or (b) in view of unique or unusual factual circumstances of the instant case, application of the rule(s) would be inequitable, unduly burdensome or contrary to the public interest, or the applicant has no reasonable alternative.<sup>13</sup> We conclude that Iridium has justified grant of the requested waivers under the first prong of this standard, subject to conditions discussed below.

6. When the Commission created rules to govern domestic deployment and use of the GMDSS, Inmarsat was the sole GMDSS mobile satellite service provider.<sup>14</sup> Inmarsat satellite services do not cover the polar regions,<sup>15</sup> so Iridium’s proposed global operations would extend GMDSS mobile satellite service, enhancing the Coast Guard’s situational awareness in those regions and facilitating

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<sup>6</sup> See Petition at 9-14; 47 CFR §§ 80.93, 80.102, 80.310, 80.335, 80.409, 80.905, 80.1069, 80.1077, 80.1085, 80.1087, 80.1089, 80.1091, 80.1093, 80.1101, 80.1105, 80.1123.

<sup>7</sup> RTCM is a nonprofit organization that studies maritime issues. It is comprised of marine electronics manufacturers, government organizations such as the United States Coast Guard, and other parties interested in maritime operations. See <http://www.rtcn.org/about.html#Members>.

<sup>8</sup> Petition at 6-7. See Petition of the Radio Technical Commission for Maritime Services for Rulemaking, RM-11765 (filed Feb. 16, 2016), Attachment at 18.

<sup>9</sup> Petition at 6-7.

<sup>10</sup> *Id.* at 7.

<sup>11</sup> *Id.* at 7-8.

<sup>12</sup> See *Wireless Telecommunications Bureau Seeks Comment on Iridium Communications Inc. Petition for Waiver to Permit Use of Iridium Service to Meet GMDSS Requirements*, Public Notice, 34 FCC Rcd 9000 (WTB 2019).

<sup>13</sup> 47 CFR § 1.925(b)(3).

<sup>14</sup> See *Amendment of Parts 13 and 80 of the Commission’s Rules to implement the Global Maritime Distress and Safety System (GMDSS) to improve the safety of life at sea*, Notice of Proposed Making, 5 FCC Rcd 6212, 6213, para. 13 (1990) (*GMDSS NPRM*).

<sup>15</sup> *FCC Seeks Comment on Recommendations Approved by the Advisory Committee for the 2007 World Radiocommunication Conference*, Public Notice, 21 FCC Rcd 11349, 11423 (IB 2006).

search and rescue efforts for vessels in distress in arctic waters.<sup>16</sup> In addition to enhancing maritime safety, Iridium's proposed GMDSS offering will, for the first time, provide the benefits of service provider competition to mariners subject to GMDSS requirements, which may result not only in lower compliance costs but also encourage new and innovative equipment functionalities.<sup>17</sup> The Coast Guard "fully supports" Iridium's request,<sup>18</sup> and it notes that Iridium's proposed GMDSS service has been fully vetted by the IMO, the IMSO, and technical advisory bodies.<sup>19</sup> In view of the IMO's recognition of Iridium as qualified to offer GMDSS service, we conclude that delaying implementation of Iridium's GMDSS service would frustrate the GMDSS rules' goal of enhancing maritime safety,<sup>20</sup> and that grant of the request would be in the public interest.

7. We reject Inmarsat's assertion that Iridium should not be permitted to offer vessels competitive GMDSS service until after a Commission rulemaking proceeding.<sup>21</sup> Inmarsat claims that "GMDSS is a safety-of-life service, which means that it needs a stable, predictable regulatory framework that promotes accountability and reliability. . . . The public interest concerns in favor of sustaining this safety service outweigh any timing-based or convenience-based considerations that might justify a waiver."<sup>22</sup> We conclude that Iridium does not seek waiver relief of such complexity that its introduction of GMDSS service risks disrupting our regulatory framework for maritime communications. The rules were written to permit vessels to obtain GMDSS mobile satellite service from every entity that was then authorized by IMO to provide such service. Grant of Iridium's waiver request would maintain that state of affairs while the Commission considers RTCM's rulemaking petition. As Iridium notes, precedent supports granting a waiver to permit the deployment of new safety equipment pending the resolution of a related rulemaking proceeding.<sup>23</sup>

8. We therefore waive the relevant part 80 rules to permit Iridium to provide GMDSS mobile satellite service and to permit vessels to carry GMDSS-approved Iridium ship earth stations in lieu of GMDSS-approved Inmarsat earth stations pending resolution of RTCM's rulemaking petition,<sup>24</sup> as follows:

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<sup>16</sup> Coast Guard Reply Comments at 3-4. As the Coast Guard notes, in these areas it is vital that mariners be able to reliably notify search and rescue personnel at the very onset of an emergency "because survival is measured in seconds under these extreme conditions." *Id.* at 5. With the acceleration of commercial activity in the polar regions, addressing the safety needs of vessels that travel in these waters has increased importance. *See, e.g.*, Arctic Council, Telecommunications Infrastructure in the Arctic: A Circumpolar Assessment 88 (2017), [https://oaarchive.arctic-council.org/bitstream/handle/11374/1924/2017-04-28-ACS\\_Telecoms\\_REPORT\\_WEB-2.pdf?sequence=1&isAllowed=y](https://oaarchive.arctic-council.org/bitstream/handle/11374/1924/2017-04-28-ACS_Telecoms_REPORT_WEB-2.pdf?sequence=1&isAllowed=y).

<sup>17</sup> Petition at 5.

<sup>18</sup> Coast Guard Reply Comments at 1.

<sup>19</sup> *Id.* at 5.

<sup>20</sup> *See GMDSS NPRM*, 5 FCC Rcd at 6212, para. 1.

<sup>21</sup> *See Inmarsat Comments* at 1-3.

<sup>22</sup> *Id.* at 3.

<sup>23</sup> Iridium Reply Comments at 3 (citing *WorldVu Satellites Limited*, Order and Declaratory Ruling, 32 FCC Rcd 5366, 5378, para. 26 (2017); *Deere & Company Request for Limited Waiver of Part 15 Rules for Fixed White Spaces Device*, 31 FCC Rcd 2131, 2136, para. 11 (OET 2016); *New ICO Satellite Services G.P.*, Order and Authorization, 24 FCC Rcd 171, 197, para. 69.i (IB 2009)); *see also, e.g., Weatherdock AG*, Order, DA 19-1251, at 2, para. 7 (WTB MD Dec. 10, 2019); *Ocean Signal Limited*, Order, 34 FCC Rcd 9011, 9012, para. 6 (WTB MD 2019); *Echodyne Corporation*, Order, 34 FCC Rcd 4830, 4831, para. 7 (WTB MD 2019).

<sup>24</sup> That is, Iridium and users of its GMDSS mobile satellite service will be subject to the rules adopted in the pending rulemaking proceeding, but will be permitted to operate pursuant to this waiver until such rules take effect.

- We waive section 80.93(c)(2) and (d) to permit vessels to use Iridium equipment to the same extent as Inmarsat equipment to comply with hours-of-service requirements.<sup>25</sup>
- We waive section 80.102(a) to exempt voice traffic in the Iridium system from the station identification requirement to the same extent that voice traffic in the Inmarsat system is exempt pursuant to section 80.102(e).<sup>26</sup>
- We waive sections 80.203(g) and 80.1103(a) to permit authorization of Iridium GMDSS terminals under the Supplier's Declaration of Conformity (SDoC) process rather than by a Telecommunications Certification Body, as the rules permit for Inmarsat GMDSS terminals.<sup>27</sup>
- We waive section 80.905(a)(3)(iii)(B) and (a)(4)(iii)(B) to permit small passenger vessels to carry Iridium equipment in lieu of a digital selective calling-capable single sideband radiotelephone to the same extent that such vessels may carry Inmarsat equipment to meet that requirement.<sup>28</sup>
- We waive sections 80.1069(a)(3) and (a)(4); 80.1085(a)(5); 80.1087(a)(5); 80.1089(a)(3)(iii) and (c)(2); 80.1091(a)(1), (a)(4)(iii), and (b)(3)(ii); 80.1093; and 80.1105(g)(3) and (4) to permit the use of Iridium equipment in lieu of Inmarsat equipment to meet subpart W carriage requirements.<sup>29</sup>
- We waive section 80.1077 so that frequencies licensed to Iridium in the 1618.725-1626.5 MHz band may be used for GMDSS operations.<sup>30</sup>
- We waive section 80.1101(c) to provide that Iridium equipment may be certified to comply with the International Electro-technical Commission (IEC) standard for GMDSS earth stations, IEC 61097-16,<sup>31</sup> in lieu of the standards governing Inmarsat GMDSS equipment.<sup>32</sup>

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<sup>25</sup> 47 CFR § 80.93(c)(2), (d).

<sup>26</sup> 47 CFR § 80.102(a), (e).

<sup>27</sup> 47 CFR §§ 80.203(g), 80.1103(a). Under the SDoC process, the responsible party tests the equipment for compliance with the applicable standards or requirements and certifies to the public, through a statement supplied with the product, that the equipment is in compliance. *Amendment of Parts 0, 1, 2, 15, 18 of the Commission's Rules Regarding Authorization of Radio Equipment*, Notice of Proposed Rulemaking, 30 FCC Rcd 7725, 7735, para. 27 (2015); see also 47 CFR §§ 2.1071-2.1077. The responsible party is not required to secure an independent third-party review to verify the equipment's compliance. The SDoC process generally applies to unintentional radiators, but there are exceptions; the SDoC process is used, for example, in certifying point-to-point microwave transmitters. See 47 CFR §§ 15.3(z), 15.101(a), 101.139(a).

<sup>28</sup> 47 CFR § 80.905(a)(3)(iii)(B), (4)(iii)(B).

<sup>29</sup> 47 CFR §§ 80.1069(a)(3), (4), 80.1085(a)(5), 80.1087(a)(5), 80.1089(a)(3)(iii), (c)(2), 80.1091(a)(1), (4)(iii), (c)(2), 80.1093, 80.1105(g)(3), (4). Pursuant to this waiver, vessels equipped with Iridium equipment need not comply with the provisions of sections 80.1093 and 80.1105(g)(4) for vessels in sea area A4, given that such vessels will never be out of GMDSS satellite coverage.

<sup>30</sup> 47 CFR § 80.1077.

<sup>31</sup> IEC 61097-16, edition 1.0, 2019-07, "Global maritime distress and safety system (GMDSS)—Part 16: Ship earth stations operating in mobile-satellite systems recognized for use in the GMDSS—Operational and performance requirements, methods of testing and required test results." The IEC is a global organization that prepares and publishes international standards for all electrical, electronic, and related technologies. The IEC works closely with Safety Convention organizations in developing standards for GMDSS equipment.

<sup>32</sup> 47 CFR § 80.1101(c). Iridium agrees with RTCM, Inmarsat, and Ligado that waiver relief should be conditioned on Iridium's compliance with IEC 61097-16. See RTCM Comments at 3; Inmarsat Comments at 5; Ligado Reply Comments at 2; Iridium Reply Comments at 6.

9. These waivers are intended to ensure that our part 80 rules do not preclude Iridium's GMDSS service and do not disadvantage GMDSS users who choose Iridium's offering. Iridium must meet all relevant IMO and IMSO requirements before initiating GMDSS service, and Iridium and vessels utilizing Iridium's GMDSS mobile satellite service must otherwise comply with the requirements in parts 25 and 80 of our rules.<sup>33</sup> Consequently, the waiver relief we grant herein to vessels utilizing Iridium GMDSS satellite service is subject to the following conditions:

-Voluntary vessels equipped with a GMDSS-approved Iridium system must have the unit turned on and set to receive calls whenever the vessel is underway and the radio is not being used to communicate, as is required of voluntary vessels equipped with a GMDSS-approved Inmarsat system.<sup>34</sup>

-If a distress alert is inadvertently transmitted by an Iridium ship earth station, the alert must be canceled in compliance with the procedure required in section 80.335(d) for canceling an inadvertent distress alert transmitted by an Inmarsat ship earth station.<sup>35</sup>

-Ships fitted with an Iridium ship earth station pursuant to the waiver of section 80.1091(a)(1) must maintain a continuous watch for satellite shore-to-ship distress alerts, as is required of voluntary vessels equipped with an Inmarsat ship earth station pursuant section 80.1091(a)(1).<sup>36</sup>

10. Accordingly, IT IS ORDERED that pursuant to section 4(i) of the Communications Act of 1934, as amended, 47 U.S.C. § 154(i), and section 1.925 of the Commission's rules, 47 CFR § 1.925, the Petition for Waiver of Certain Part 80 Rules Concerning Iridium's Provision of GMDSS filed by Iridium, Inc. on filed September 6, 2019, IS GRANTED as set forth above, SUBJECT TO THE CONDITIONS SET FORTH IN PARAGRAPH 9.

11. This action is taken under delegated authority pursuant to sections 0.131 and 0.331 of the Commission's Rules, 47 CFR §§ 0.131, 0.331.

FEDERAL COMMUNICATIONS COMMISSION

Scot Stone  
Deputy Chief, Mobility Division  
Wireless Telecommunications Bureau

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<sup>33</sup> Ligado, which holds licenses and authorizations to operate in the L-band at 1626.5-1660.5 MHz, adjacent to the spectrum at 1618.725-1626.5 MHz that Iridium uses for its current services and will also use to provide GMDSS service, asks that we clarify that grant of Iridium's waiver request does not give Iridium any different level of spectrum priority than that already recognized by the Commission or the International Telecommunication Union. See Ligado Reply Comments at 3. We clarify that the scope of the waiver we grant here is limited to relieving Iridium of the restrictions placed on it by Commission rules that are currently Inmarsat-specific, and does not affect the terms of its current licenses and other authorizations or its obligation to comply with unrelated regulatory requirements.

<sup>34</sup> See 47 CFR § 80.310.

<sup>35</sup> See 47 CFR § 80.335(d).

<sup>36</sup> See 47 CFR § 80.1123(a)(4).