

**Before the
NATIONAL TELECOMMUNICATIONS AND INFORMATION ADMINISTRATION
WASHINGTON, DC 20230**

Implementation of the National Spectrum
Strategy

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COMMENTS OF IRIDIUM COMMUNICATIONS INC.

Iridium Communications Inc. (“Iridium”) hereby submits these comments in response to the request for input issued by the National Telecommunications and Information Administration (“NTIA”) on the Implementation Plan for the National Spectrum Strategy (“Implementation Plan” and “Spectrum Strategy”).¹

I. Introduction

NTIA’s efforts to develop and implement the Spectrum Strategy – consistent with steps required by the Presidential Memorandum on “Modernizing United States Spectrum Policy and Establishing a National Spectrum Strategy”² – are important for promoting continued American innovation in next-generation communications services and its leadership in the space economy. Iridium’s services are an integral part of that economy. As described in Iridium’s comments to NTIA to inform the Spectrum Strategy,³ the Iridium® constellation is the only commercial

¹ See *Implementation Plan for the National Spectrum Strategy*, Notice of Opportunity for Public Input, NTIA, 88 Fed. Reg. 85266 (Dec. 7, 2023) (“Notice”); NTIA, *National Spectrum Strategy*, (Nov. 13, 2023), https://www.ntia.gov/sites/default/files/publications/national_spectrum_strategy_final.pdf (“Spectrum Strategy”).

² White House, *Presidential Memorandum, Modernizing United States Spectrum Policy and Establishing a National Spectrum Strategy*, (Nov. 13, 2023), <https://www.whitehouse.gov/briefing-room/presidential-actions/2023/11/13/memorandum-on-modernizing-united-states-spectrum-policy-and-establishing-a-national-spectrum-strategy/> (“Presidential Memorandum”).

³ Comments of Iridium Communications Inc., Development of a National Spectrum Strategy, Docket No. 230308-0068, Document ID NTIA-2023-0003 (filed Apr. 17, 2023) (“Iridium NSS Comments”).

provider of communications services offering true global, pole-to-pole coverage, connecting people, organizations, and assets to and from anywhere, in real time. Iridium's ubiquitous L-band mobile satellite service ("MSS") network provides reliable, weather-resilient communications services to regions of the world where terrestrial wireless or wireline networks do not exist or are limited, including remote land areas, open ocean, airways, the polar regions, and regions where the telecommunications infrastructure has been affected by political conflicts or natural disasters.

The Iridium® constellation provides this true global coverage by efficiently routing traffic through a satellite network architecture of 66 operational satellites with in-orbit and ground spares and related ground infrastructure. This unique network utilizes an interlinked mesh architecture to route traffic across its constellation using crosslinks between satellites, minimizing the number of local ground stations that are needed, and facilitating the global reach of Iridium's services—even without a physical presence on the ground. Iridium also provides satellite communications services to the U.S. government, principally serving the Department of Defense ("DoD") and providing MSS to an unlimited number of subscribers across all branches of the U.S. armed forces for a wide variety of applications. The U.S. government, directly and indirectly, continues to be Iridium's single largest customer. Iridium provides increased network security to the U.S. government because traffic is routed across Iridium's satellite constellation before being brought down to earth through a dedicated, secure gateway owned and operated by the U.S. government that is exclusively compatible with the Iridium network.

As NTIA and the Administration look to implement the Spectrum Strategy, they should ensure the steps taken advance coordination across government to the ultimate benefit of the growing space economy. It is particularly critical that NTIA's focus on Pillar Two of the

Strategy, “Collaborative Long-Term Planning to Support the Nation’s Evolving Spectrum Needs,” results in improved collaboration and coordination between agencies with roles in federal and non-federal spectrum management to ensure prompt sound technical decisions that reflect the equities of all stakeholders and advance the public interest. The Implementation Plan must also recognize the critical role that commercial services play in meeting the operational needs of federal stakeholders and private industry, endorse and establish robust information sharing between federal agencies to ensure spectrum-based operations can coexist without causing degradation to existing services, and promote the need for existing operators to have sufficient regulatory protection from harmful interference.

II. The Implementation Plan Should Facilitate Improved Interagency Coordination

Iridium commends the Presidential Memorandum’s recognition of NTIA’s role as the singular voice of the Executive Branch agencies to communicate spectrum decisions.⁴ It is important that the Executive Branch agencies have the flexibility to provide their individual views and technical input on federal and non-federal spectrum use to NTIA. However, NTIA must communicate the final Executive Branch views on spectrum matters. When different Executive Branch agencies give different opinions on the same spectrum issue even after NTIA has spoken, confusion and poor policy outcomes can result.

NTIA and the Federal Communications Commission (“FCC”) have taken important steps to improve the spectrum management coordination process, including under the Spectrum Coordination Initiative and the updated Memorandum of Understanding (“MOU”) on spectrum

⁴ Presidential Memorandum § 1 (recognizing NTIA’s role as “the executive branch agency principally responsible for advising the President on telecommunications and information policies”); Oversight and Reauthorization of the National Telecommunications and Information Administration, Hearing before the House Committee on Energy & Commerce, Subcommittee on Communications & Technology (Dec. 5, 2023) (Testimony of Alan Davidson, Administrator, NTIA) (the Presidential Memorandum places NTIA in the central role as the federal spectrum manager and principal advisor to the President).

management.⁵ As it works to build upon the framework for effective communication established by the MOU, NTIA must adopt procedures that enables it to obtain comprehensive information from other agencies in a timely manner.

A. Information about Federal Use of Commercial Spectrum Critical to Analyses

The Presidential Memorandum specifically contemplates the Department of Commerce’s and NTIA’s responsibility to promote the most efficient use of spectrum, including for “all spectrum matters, both where agencies hold NTIA-issued frequency assignments and where non-Federal spectrum use may have a substantial impact on agency missions.”⁶ To that end, the Implementation Plan should specifically highlight the importance of non-federal spectrum that is licensed to commercial operations and used by U.S. government agencies to support government operations. As described above, Iridium’s largest customer is the U.S. government, which relies on Iridium’s satellite constellation for mission-critical services and equipment.

Every level of the coordination process should include efficient and open communication about spectrum policy matters to ensure that all spectrum decisions are informed by the diverse missions of different federal agencies as well as commercial operators. This should shape the charter for the Interagency Spectrum Advisory Council (“ISAC”),⁷ in which NTIA should endeavor to ensure that information sharing on spectrum use, including the use of commercial spectrum by federal users’, among heads of agencies occurs early and often in the coordination process to promote transparency and improve overall interagency coordination.

⁵ *Memorandum of Understanding Between the Federal Communications Commission and the National Telecommunications and Information Administration* (Aug. 1, 2022), <https://docs.fcc.gov/public/attachments/DOC385867A1.pdf> (“MOU”).

⁶ Presidential Memorandum § 5.

⁷ See Presidential Memorandum § 2.

Consistent with the directives in the Presidential Memorandum, Executive Branch agencies should commit to working with NTIA in a timely manner to consider and address any actionable data or analysis about the impact of proposed spectrum use.⁸ Likewise, NTIA should be timely in its responses to this input and provide clear information about why a particular position will be presented to the FCC.⁹

B. Sharing of Sensitive or Classified Information Necessary for Spectrum Decisions

Successful coordination may depend on sharing sensitive or classified information among agencies and with the FCC. The Implementation Plan should reflect that information sharing regarding mission-critical services can be facilitated through robust rules, regulations, and processes that require the proper handling of classified information within and between federal agencies. Indeed, such processes may have better facilitated information sharing and prevented a breakdown in coordination that ultimately led NTIA to take the unprecedented step of petitioning the FCC to reconsider and stay a decision because the FCC “failed to adequately consider and give appropriate weight to important and valid executive branch concerns” regarding potential widespread harmful interference to federal users.¹⁰ As Iridium also noted in its initial Comments on the Spectrum Strategy, prior breakdowns in the interagency coordination process and trusted information sharing have led Congress to take action, including mandating that DoD brief federal stakeholders on the impacts of a terrestrial deployment in the L-band at the “highest levels of classification.”¹¹

⁸ *Id.*

⁹ *Id.*

¹⁰ Iridium NSS Comments at 6.

¹¹ *Id.* at 5.

Where necessary, sharing classified information, including the necessary underlying technical data, should occur as early and often as possible in the spectrum coordination process. This will enable government agencies to inform NTIA, as the lead agency on behalf of the Executive Branch on spectrum issues,¹² about whether proposed operations can coexist with critical services without degradation or whether they will cause harmful interference to incumbent services. NTIA needs this level of transparency to better inform its advocacy at the FCC on behalf of federal users. This is consistent with the responsibilities accorded to NTIA by the Presidential Memorandum and with Iridium’s comments.¹³ Federal agencies must in turn treat this information appropriately and respond by incorporating this information into their consideration for that spectrum allocation. Effective communication between agencies is necessary to inform evidence-based policymaking that relies on technical data and analyses,¹⁴ including the appropriate and timely sharing of sensitive or classified information. This will allow federal agencies to account for the potential impact to federal and commercial systems of spectrum management decisions made by NTIA and the FCC.

III. The Implementation Plan Must Prioritize Protecting Critical Services and Balancing New Services with the Value of Existing Services

Iridium provides the U.S. government with mission-critical services and equipment. This is the product of vast amounts of time and investment to design, develop, and upgrade Iridium’s network and offerings. Indeed, NTIA has noted that the Iridium satellite network “has supported several federal agencies for nearly twenty years and continues to be a critical resource for many

¹² See Presidential Memorandum § 5; Spectrum Strategy at 2.

¹³ See Presidential Memorandum § 5 (directing NTIA to facilitate the presentation by agencies of classified or otherwise sensitive views to the FCC); Iridium NSS Comments at 5-6 (encouraging NTIA to facilitate the sharing of classified information through robust rules, regulations, and processes).

¹⁴ See Presidential Memorandum § 3(b); Spectrum Strategy at 9-12.

federal users.”¹⁵ Satellite providers rely on long-term, stable spectrum allocations and coordination among their spectrum neighbors to provide certainty that these networks can protect each other from harmful interference. U.S. space leadership requires sufficient spectrum for these services and spectrum allocation decisions need to be stable to encourage investment in critical services. NTIA should make clear in its Implementation Plan and the ISAC charter that a necessary component of ensuring American leadership in spectrum-based services is the requirement that operating networks must not be subjected to harmful interference that would jeopardize both federal and commercial users alike.¹⁶

A. Protection Needed for Existing Federal Use of Commercial Spectrum

The Presidential Memorandum and the Spectrum Strategy emphasize the need to promote the most efficient use of spectrum, including situations like Iridium’s, where government agencies rely on non-federal spectrum for agency missions.¹⁷ Iridium uses its spectrum extremely efficiently, serving its entire customer base of over 2.3 million subscribers in under 9 megahertz of allocated spectrum. Similarly, the Strategy reaffirms that the federal government will procure commercial products and services to support its operations and that, when relying on non-governmental entities or services is infeasible, NTIA will ensure that sufficient spectrum resources are available to agencies and their supporting entities to conduct their missions and to protect their operations from experiencing harmful interference.¹⁸ NTIA should embed this understanding in the Implementation Plan. In particular, the Implementation Plan should

¹⁵ NTIA Reply to Ligado Networks LLC’s Opposition to Petitions for Reconsideration or Clarification, IB Docket Nos. 11-109 & 12-340, at 10 n.26 (June 8, 2020).

¹⁶ Iridium NSS Comments at 6.

¹⁷ Presidential Memorandum §§ 5, 8.

¹⁸ Spectrum Strategy at 3-4.

recognize the need to protect incumbent L-band satellite services from harmful interference that would be caused by proposed terrestrial operations. Such terrestrial operations would be a fundamental departure from the regulatory environment that has enabled the L-band to become a critical and irreplaceable home to satellite services relied upon by the U.S. government and millions of commercial users, and they have now been confirmed to result in harmful interference.¹⁹

The Implementation Plan should put coordination procedures in place to address concerns about a new use of spectrum potentially causing harmful interference to existing federal operations or non-federal operations before the new use is approved. If NTIA and the FCC effectively coordinate among themselves, the industry, and other agencies, they will have protected incumbent services and prioritized introducing new services on a non-interference basis with existing services. However, in the rare case that unanticipated interference does occur, Iridium urges NTIA to recognize the criticality of that situation in the Implementation Plan. As the Presidential Memorandum recognizes, clear procedures must be in place for those instances when the FCC makes spectrum available for non-federal use and an agency believes that for a reason unforeseen before FCC action, the new use is causing or potentially will cause harmful interference to existing federal operations or non-federal operations regulated by an agency.²⁰ Further, to account for the possibility that harmful interference does occur after FCC approval of a new non-federal use of spectrum, the Implementation Plan should require NTIA to

¹⁹ National Academies of Sciences, Engineering, and Medicine, *Analysis of Potential Interference Issues Related to FCC Order 20-48* (2022), <https://doi.org/10.17226/26611>. (At the direction of Congress, the NAS completed an independent technical review of L-band interference issues, the result of broad government and industry concern that the FCC did not properly account for the real-world potential for interference in its *Ligado Order*).

²⁰ See Presidential Memorandum §§ 5, 6.

– on behalf of the federal agency or agencies experiencing harmful interference –inform the FCC of the harmful interference within a specified timeframe and include sufficient technical information for the FCC to work with all relevant stakeholders to reach a resolution.

B. Open Communication Between FCC and NTIA Critical to Spectrum Strategy Success

It is essential that communication between NTIA and the FCC remain open throughout coordination. Section 5 of the Presidential Memorandum encourages NTIA to endeavor to meet the FCC’s timelines and to request additional time as needed.²¹ To enhance this directive, the Implementation Plan should include a requirement that NTIA inform the FCC within a certain number of days – e.g., 10 days – of the requested deadline if it will not meet the deadline and provide a specific, reasonable period of time within which it will provide the requested views to the FCC. Finally, the Implementation Plan should incorporate a process for NTIA, in consultation with the FCC, to reassess and adjust the coordination process based on lessons learned from earlier coordination efforts every four years consistent with the MOU.²² This reassessment should examine all phases of the coordination process including sharing of classified and non-classified information, the timeframes within which Executive Branch agencies are expected to provide information and NTIA is expected to reply, as well as coordination between NTIA and the FCC.

IV. Conclusion

As NTIA creates its Implementation Plan for the National Spectrum Strategy, it must focus on improving coordination between the government agencies that oversee federal and non-federal use of spectrum, including U.S. government agencies that rely on commercial operators

²¹ See Presidential Memorandum § 5(a)(iv).

²² MOU § 6.

for agency missions. This includes the sharing of information between agencies, including sensitive or classified information subject to rules and regulations that require proper handling of classified information shared between federal agencies. Finally, any proposed new use of spectrum must be balanced with the value of incumbent services to protect them from harmful interference.

Respectfully Submitted,

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