Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of	)	
	)	
Expanding Access to Mobile Wireless Services Onboard Aircraft	)	WT Docket No. 13-301
	)	

COMMENTS OF THE
TELECOMMUNICATIONS INDUSTRY ASSOCIATION

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EXECUTIVE SUMMARY

TIA congratulates the Federal Communications Commission ("Commission") for undertaking a re-examination of regulations regarding in-flight cellular use. The rules in question were adopted many years ago to guard against possible signal interference issues and does not justify the ban on all cellular services – whether data, text, or voice. The Commission can change the rules and ensure that airlines have the most up-to-date and accurate information to make their own educated, market-based decisions in response to the requirements of their customers.

In our comments below, TIA:

- Urges the Commission to allow for enhanced in-flight mobile connectivity for U.S. consumers;
- Supports the Commission's reexamination of outdated regulations that impact in-flight connectivity capabilities, particularly in light of the benefits of global harmonization;
- Opposes new service obligations on in-flight mobile connectivity offerings or requiring that in-flight mobile connectivity ("IMC") equipment onboard foreign aircrafts operating in U.S. airspace be relicensed; and
- Urges that the Commission need not take further action to address law enforcement and aircraft safety concerns.

In the end, the Commission's potential rule change could increase connectivity for consumers and open a new ecosystem for in-flight services of all kinds. The ICT industry and entrepreneurs will innovate with as-yet-unknown new technologies, ultimately leading to new devices, services, and applications that will greatly benefit the flying public and encourage economic growth. TIA looks forward to working with the Commission as it seeks to remove outdated regulatory barriers for access to innovative devices and services.

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I. INTRODUCTION AND STATEMENT OF INTEREST

The Telecommunications Industry Association ("TIA")[1] hereby submits its comments in response to the Commission's Notice of Proposed Rulemaking ("NPRM") in this proceeding.[2] As the leading trade association for the information and communications technology ("ICT") manufacturer, vendor, and supplier community, TIA applauds the Commission for initiating its review and reform of outdated rules impacting the availability of mobile broadband applications onboard airborne aircraft. TIA members manufacture in-flight connectivity systems, as well as Wi-Fi, 3G, 4G, intentional transmitters (small cell), non-radio products such as routers and switches, and many other ICT products.

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[1] TIA is a Washington, DC-based trade association representing hundreds of ICT manufacturers, vendors, and suppliers across all technology platforms. Members' products and services empower communications in every industry and market, including healthcare, education, security, public safety, transportation, government, the military, the environment and entertainment. TIA is also an American National Standards Institute ("ANSI")-accredited standards development organization for the telecommunications field. For more information, please see TIA's 2013 Policy Playbook, which provides an overview of the ICT market, technologies and policies that drive innovation and investment. *See* http://www.tiaonline.org/policy/tia-2013-playbook.

[2] In the Matter of Expanding Access to Mobile Wireless Services Onboard Aircrafts, *Notice of Proposed Rulemaking*, WT Docket No. 13-301, 13 FCC Rcd. 157 (2013) ("NPRM").

II. DISCUSSION

A. TIA SUPPORTS THE COMMISSION'S EFFORTS TO ENABLE AIRLINES TO ENHANCE IN-FLIGHT CONNECTIVITY FOR CONSUMERS

TIA supports the Commission's efforts to reduce technical restrictions to increased mobile broadband connectivity, particularly for in-flight settings. TIA commends the Commission's activity in this area, including its consideration of alternative technological solutions to provide in-flight broadband. As the Commission appropriately notes in the NPRM, demand for mobile broadband communications has increased dramatically — driven primarily by consumer demand for mobile data applications.[3]

1. CONSUMER DEMAND IS INCREASING FOR CONNECTIVITY IN ALL SETTINGS, INCLUDING ONBOARD COMMERCIAL AIRLINES

Consumers seek to remain connected regardless of their location, and TIA believes that in-flight settings are no exception to this rule. Enabling IMC affords the potential for increasing the benefits of mobile broadband to tens of millions of consumers each year.[4] Already, in-flight Wi-Fi connectivity is an expected amenity on commercial aircraft for consumers,[5] and has

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[3] *See* NPRM at par. 22.

[4] Some estimates project the total in-flight electronic communications market to reach $3 Billion by 2017 with a compound annual growth rate of 6.67%. *See, e.g.*, marketsandmarkets.com, *Global Commercial Aviation In Flight Entertainment & Communications Market (2012 - 2017)* (Oct. 2012), *available at* http://www.marketsandmarkets.com/Market-Reports/in-flight-entertainment-communications-market-860.html.

[5] *See, e.g.*, Jason Paur, *Airline Passengers Want Wi-Fi So Badly, They'd Trade Legroom for It*, Wired (Sep. 5, 2013), *available at* http://www.wired.com/autopia/2013/09/airline-wifi/.

driven commercial airlines to provide the same broadband connectivity applications in the air as on the ground.[6]

The need to provide additional connectivity options for millions of flying consumers has resulted in the development of IMC systems that allow passengers the convenience of using their mobile devices just as they would on the ground.[7] Passengers have the ability to access IMC applications as if they were roaming internationally (roaming "in the air" on an IMC provider's onboard network is akin to roaming abroad) as long as a valid roaming arrangement exists between the customer's service provider and the IMC system.[8] Passengers who wish to access IMC applications do so after obtaining applicable terms and conditions, typically through onboard materials describing the IMC offering and a welcoming text message with other relevant information (*e.g.,* pricing and other important terms).

TIA supports the Commission's proposal to enable airlines to determine whether to offer additional in-flight connectivity options for American consumers. The removal of rules restricting airlines from offering IMC in the United States may potentially afford airline passengers numerous benefits. By allowing improved access to in-flight mobile broadband applications, consumers will be able to remain connected to family, friends, and colleagues even at 30,000 feet.

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6 *See Mobile Phones on Flights: Plane Talking*, The Economist (Dec. 16, 2013, 1:06 PM), *available at* http://www.economist.com/blogs/gulliver/2013/12/mobile-phones-flights.

7 *See* Marketsandmarkets.com, supra note 4.

8 Indeed, most "smart" devices used for mobile broadband applications include the frequencies and international roaming features necessary to access IMC pursuant to existing technical standards.

In addition to mobile data applications such as text and email (which are similar to the Wi-Fi-based applications in use today), a passenger would be able to check voicemail, leave messages or even take an important calls should an airline choose to allow voice connectivity.[9] Regardless of the specific application(s) that an airline chooses to offer its passengers, TIA agrees that the Commission's role is to enable the underlying IMC technology for the benefit of U.S. consumers and let the market decide how to best apply the technology.

2. TIA SUPPORTS THE COMMISSION REEXAMINING OUTDATED REGULATIONS AFFECTING IMC AVAILABILITY

TIA supports re-examining outdated regulations that may stifle innovation, particularly in the dynamic ICT market. In this instance, the Commission has appropriately targeted a set of regulatory prohibitions on in-flight use of mobile devices adopted decades ago that have been overtaken by technological developments. While the majority of the globe has decided to move forward with innovative IMC solutions,[10] current U.S. rules force IMC providers to turn off their systems when in U.S. airspace.

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[9] Although access to voice applications has given rise to certain concerns, TIA understands that this issue is being addressed in a separate proceeding commenced by the DoT/FAA. *See* Press Release, FAA, FAA to Allow Airlines to Expand Use of Personal Electronics (Oct. 31, 2013),

http://www.faa.gov/news/press_releases/news_story.cfm?newsId=15254 (FAA PED Press Release); *See also* A Report from the Portable Electronics Devices Aviation Rulemaking Committee to the Federal Aviation Administration, Recommendations on Expending the Use of Portable Electronic Devices During Flight (Sept. 30, 2013), *available at*: http://www.faa.gov/about/initiatives/ped/media/PED_ ARC_FINAL_REPORT.pdf (ARC Report).

[10] As the Commission notes in the NPRM, "more than forty jurisdictions, including the European Union, Asia, and Australia," have permitted mobile connectivity on aircrafts, and reported no instances of any harmful interference to terrestrial wireless communication networks. *See* NPRM at ¶ 3.

The restrictions addressed in the Commission's proposal are a clear-cut case of outdated regulation standing in the path of progress. The steps proposed by the Commission would allow U.S. consumers to join their foreign counterparts in enjoying the benefits of in-flight mobile broadband applications onboard aircrafts. Additionally, TIA has previously provided comment to the Federal Aviation Administration,[11] regarding an outdated regulatory regime that remains in place in the United States prohibiting enhanced communications services, while the rest of the developed world generally allows for companies to innovatively provide enhanced voice and data service to in-flight consumers. The change would also be consistent with long-held Federal priorities, such as President Obama's 2011-issued Executive Order,[12] which calls for an improvement in regulation and regulatory review, thus encouraging agencies to review regulations stunting economic growth.[13]

3. THE COMMISSION'S PROPOSAL LENDS TO IMPORTANT INTERNATIONAL HARMONIZATION PRINCIPLES

IMC systems have operated for years throughout the world to extend the benefits of mobile broadband connectivity into the aircraft cabin without causing interference to terrestrial

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[11] *See, e.g.*, Comments of TIA to the Federal Aviation Administration's Notice of Policy and Request for Comments on Passenger Use of Portable Electronic Devices on Board Aircraft (Docket No. FAA-2012-0752), filed Nov. 5, 2012, *available at* http://www.tiaonline.org/sites/default/files/pages/TIA%20Comments%20to%20FAA%20on%20PED%20In-Flight%20Use%20103012.pdf. (last visited August 7, 2013). Also see May 22, 2013 TIA Comments Revisions to Parts 2 and 25 of the Commission's Rules to Govern the Use of Earth Stations Aboard Aircraft Communicating with Fixed-Satellite Service Geostationary-Orbit Space Stations Operating in the 10.95-11.2 GHz, 11.45-11.7 GHz, 11.7-12.2 GHz and 14.0-14.5 GHz Frequency Bands.

[12] Executive Order 13563, *Improving Regulation and Regulatory Review* (2011). Found at http://www.whitehouse.gov/the-press-office/2011/01/18/improving-regulation-and-regulatory-review-executive-order.

[13] *Fact Sheet: The President's Regulatory Strategy*, The White House website, (last updated January 18, 2011), *available at* http://www.whitehouse.gov/the-press-office/2011/01/18/fact-sheet-presidents-regulatory-strategy.

systems and services. These operations are authorized pursuant to uniform technical and operational standards developed after years of technical study by the communications and aviation industries, and adopted by telecommunications regulators and civil aviation agencies around the world. Widespread acceptance of IMC is due, in large measure, to controlling IMC equipment and mobile devices to very low power levels akin to those of Part 15 devices.

The Commission correctly notes that many countries around the world have allowed for the deployment of IMC pursuant to harmonized technical standards.[14] U.S. adoption of these harmonized IMC requirements would afford many benefits such as:

(1) hastening the deployment of IMC systems on U.S. airlines due to the availability of existing equipment and the long lead-times for development and certification of new design in the commercial aviation context;

(2) facilitating cross-border operation of IMC systems in the international aviation context, where application of divergent national requirements is not practical;

(3) allowing the Commission to draw on deep international expertise and experience behind the development of those standards, which will enable expeditious adoption of appropriate requirements;

(4) facilitating international cooperation and interoperability, which will enhance trade in in-flight connectivity equipment and services; and

(5) avoiding the development of regulations that could be viewed as unnecessary, discriminatory or even barriers to entry in the context of international IMC operations.

For these reasons, we support the Commission's proposed steps in the NPRM that lend to harmonization of its regulations with globally-accepted standards that have a proven track-record of non-interference and safety. However, we note that there may need to be tailored

[14] *See Id.* NPRM at ¶ 3

solutions for the United States as we utilize frequency bands differently in the US market, and technology studies have not concluded that the foreign IMC operators can operate in US airspace without having an impact on incumbent services.

As part of its proposal, the Commission puts forward certain technical restrictions for mobile devices, picocells, and NCUs; the proposal is based on the technical conclusions of the European Conference of Postal and Telecommunications Administrations ("CEPT").[15] Consistent with the above-described benefits of global harmonization, TIA urges for the use of these existing internationally-accepted standards,[16] with appropriate adjustments to account for U.S. frequency allocations as noted above, to be relied upon as the technical requirements for IMC operations the United States.

B. REGARDLESS OF THE AUTHORIZATION REGIME ADOPTED, THE COMMISSION NEED NOT IMPOSE SERVICE OBLIGATIONS ON IMC OFFERINGS OR RELICENSE IMC EQUIPMENT ONBOARD FOREIGN AIRCRAFT

In the NPRM, the Commission proposes to license IMC equipment pursuant to Part 87 aircraft stations licenses and seeks comment on this and other alternatives.[17] While various considerations must be balanced when considering an appropriate authorization approach for IMC equipment, TIA submits that the low-power nature of IMC equipment and operations in accordance with a uniform technical standard weigh in favor of some form of "license by rule" or Part 15 approach over the issuance of individual aircraft station or fleet licenses under Part

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15 *See* NPRM at ¶ 32-41.

16 *See* CEPT MCA Report 48 (Mar. 8, 2013), *available at*: http://www.erodocdb.dk/Docs/doc98/official/pdf/CEPTREP048.PDF

17 NPRM at ¶ 42

87 of the Commission's rules. Regardless of the authorization regime adopted, however, TIA urges the Commission to avoid unnecessary service regulation or duplicative licensing of equipment onboard foreign aircraft in the context of this proceeding.

1. CURRENT COMMERCIAL ARRANGEMENTS OBVIATE THE NEED FOR SERVICE OBLIGATIONS ON IMC OFFERINGS

The Commission does not need to adopt additional service requirements for the provision of IMC onboard U.S. airlines. IMC equipment operation is subject to the ultimate discretion and control of the aircraft operator (*i.e.,* controlled by the pilot in command consistent with applicable requirements of aircraft safety), but the aircraft operator has no other involvement in delivering IMC applications to the consumer. Rather, it is the consumer's home wireless service provider that enables access to an IMC network through a roaming agreement, sets retail pricing, and bills the customer. The IMC provider's role is to integrate onboard equipment with an off-board link and terrestrial backhaul (all of which are separately licensed) and provide access to the IMC network on a wholesale basis to the customer's carrier through the roaming agreement. In view of this business model, there appears to be no basis to impose service-related requirement on an IMC equipment license (i.e., the aircraft operator).

Moreover, imposing service-related requirements on other participants in the nascent IMC market is unnecessary and would only serve to stifle innovation and competition. Market forces, rather than service regulation, have successfully promoted the development of IMC internationally. As the Commission has recognized, the fundamental objective of this proceeding is to enable the underlying IMC technology and allow airlines to choose which IMC applications and offerings to provide onboard their aircraft. By allowing market forces to guide

commercial IMC arrangements in the United States, the Commission will facilitate additional innovation and the development of new IMC offerings geared to the U.S. market.

Even if the Commission concludes that some form of service-related regulation is appropriate in the context of U.S. airlines, it should refrain from establishing service-related requirements for IMC offerings onboard foreign-registered aircraft. Not only is "reaching into the foreign aircraft cabin" unnecessary for the reasons noted above, it may well infringe on the jurisdictional responsibilities of the country in which the aircraft is registered. Such action could result in a reciprocal intrusion into IMC and other in-flight connectivity offerings onboard U.S.-registered aircraft traveling abroad.

C. THE COMMISSION SHOULD NOT REQUIRE THAT IMC EQUIPMENT ONBOARD FOREIGN AIRCRAFT OPERATING IN U.S. AIRSPACE BE RELICENSED

The Commission solicits input on the appropriate regulatory framework for the operation of IMC equipment on non-U.S.-registered aircraft within U.S. territory.[18] Pursuant to well-accepted international aviation principles, the Commission may apply its regulatory requirements without relicensing the equipment installed and operated onboard foreign aircraft. Indeed, as is the case in virtually every country in the world with respect to in-flight connectivity equipment installed onboard U.S. aircraft (*e.g.*, Ku-band antennas licensed under Part 25 of the Commission's rules), the preferred approach is to recognize the license issued by the Commission and simply require compliance with applicable operating standards through some other form of authority. As a result, TIA believes foreign aircraft with IMC equipment

[18] See NPRM at ¶ 64-69.

should be permitted to operate in U.S. airspace consistent with Commission rules and aircraft station licensing issued by the aircraft's home nation, without issuing a Part 87 license to a foreign aircraft operator.

Like the ICT industry, the airline industry is global in nature and the Commission must be cognizant of the international implications of the rules adopted in this proceeding. Not only will its technical standards have an impact on IMC equipment availability and trans-border operations, but its regulatory regime may cause other nations to revisit their approaches to IMC as well.

Duplicative licensing of equipment onboard foreign aircraft is one area in particular that may have significant international regulatory impact and even treaty implications. For example, although radio equipment onboard aircraft must be operated in accordance with the regulations of overflown nations, it is not clear that relicensing equipment onboard a foreign aircraft is consistent with the provisions and legal principles underlying the Chicago Convention and ITU Radio Regulations. Moreover, even if consistent with treaty provisions, such an approach could prompt other nations to issue burdensome new equipment license requirement on IMC and other equipment on U.S. airlines. Nonetheless, if the equipment licensed on board foreign aircraft is not certified previously with respect to any changes necessary to accommodate the frequencies of operation in the United States, it is unclear what ramifications that may have for relicensing.

D. THE COMMISSION DOES NOT NEED TO TAKE FURTHER ACTION TO ADDRESS LAW ENFORCEMENT AND AIRCRAFT SAFETY CONCERNS

In the NPRM, the Commission proposes that mobile wireless services offered by IMC operators be subject to the Communications Assistance for Law Enforcement Act ("CALEA"),[19] when the offering voice or data service.[20] The Commission further requests input on whether there are additional measures that the Commission should take to address in-flight safety and security concerns beyond CALEA obligations and individual agreements among service providers and law enforcement agencies.[21] TIA appreciates the Commission addressing important law enforcement and security concerns and supports the application of CALEA to IMC operators. TIA does not believe, however, that the Commission needs to take further steps to address these concerns.

As noted in the NPRM, satellite providers, Earth Stations Aboard Aircraft ("ESAA") operators and 800 MHz Air-Ground licensees already address security concerns through individual negotiations with law enforcement agencies.[22] In this context, TIA believes that proposed IMC operations to be synonymous. The Commission should adopt a consistent approach for in-flight connectivity offerings and allow providers to work with law enforcement

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19 Pub. L.No.103-414, 108 Stat. 4279 (codified as amended in sections of 18 U.S.C. and 47 U.S.C.).

20 NPRM at ¶ 76.

21 NPRM at ¶ 76.

22 NPRM at ¶ 77.

to develop appropriate capabilities for individual system implementations in the unique aeronautical environment.[23]

In addition, as stated in the NPRM, issues of onboard security and safety of flight are matters primarily reserved for the FAA, DoT, and the airlines.[24] Thus, TIA believes the Commission does not need to impose any further requirements in this area, and should allow the FAA and DoT to retain sole responsibility for flight safety, preventing regulatory overlap and regulatory confusion. Furthermore, this approach is consistent with the 2011 Executive Order to improve regulation and regulatory review.[25]

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[23] *See* Revisions to Parts 2 and 25 of the Commission's Rules to Govern the Use of Earth Stations Aboard Aircraft Communicating with Fixed-Satellite Service Geostationary-Orbit Space Stations Operating in the 10.95-11.2 GHz, 11.45-11.7 GHz, 11.7-12.2 GHz and 14.0-14.5 GHz Frequency Bands IB Docket No. 12-376 Notice of Proposed Rulemaking (rel Dec 28, 2012).

[24] NPRM at ¶ 77.

[25] Executive Order 13563 – Improving Regulation and Regulatory Review

III. CONCLUSION

We thank the Commission for its public consultation, and urge the careful consideration of the positions of the ICT manufacturer and vendor community as it proceeds in its efforts to streamline regulations and improve opportunities for in-flight connectivity.

Respectfully submitted,

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