

The header features a dark blue background with a glowing green and blue globe. A network of white lines is overlaid on the globe, representing a global communication network. The WiMAX Forum logo, consisting of two overlapping white circles, is positioned to the left of the text.

# WiMAX FORUM<sup>®</sup> NEWSLETTER

JULY 2017

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## INTRODUCTION

Dear Respected Colleague,

The **WiMAX Forum**<sup>®</sup> activities are kicking into high gear! Important work is being done to advance the Aeronautical Mobile Airport Communications System (**AeroMACS**), **WiGRID**<sup>™</sup>, and the **WiMAX**<sup>™</sup> technology with the participation of our **Board of Directors**, **Working Group Representatives**, and **Member Companies**

### Important Message to AeroMACS Ecosystem

The United States Federal Communications Commission (FCC) has issued a **Public Notice (PN)** in response to the WiMAX Forum's **AeroMACS Petition for Rulemaking**. I am writing to ask you to submit supportive comments to the FCC. Initial Comments are due August 18, and **responses are due to the FCC no later than SEPTEMBER 5, 2017**. I have provided filing instructions at the bottom of this email. As you know, this is a very high priority for the AeroMACS community.

The PN highlights a few issues for comment, which we have addressed in our Petition. I take the liberty of addressing them briefly here again:

- Channel Manager. The WiMAX Forum has proposed that non-Federal eligible users share available channels under the auspices of a single FCC-appointed nationwide Channel Manager as the most efficient way of optimizing the available spectrum. The Channel Manager would establish a Memorandum of Agreement with the National Telecommunications and Information Administration for Federal Users' access to spectrum and would allocate channels to non-Federal users upon application to the Channel Manager. We believe that a Channel Manager, with oversight from industry participants such as the airport and airline communities (for example), is best placed to allocate spectrum fairly on a non-discriminatory basis. We strongly believe that the Channel Manager should be independent, non-profit, and deeply knowledgeable of the AeroMACS industry, ecosystem, regulatory framework, international movement and application development. We have further outlined in our Petition our rationale for such an approach and we ask that you support this approach directly in comments to the Commission.
- License by Rule. Related to the above, the WiMAX Forum has proposed that non-Federal eligible users be "licensed by rule" under Part 95 and be able to register sites and secure AeroMACS channels by applying to the Channel Manager as described above. We strongly believe that if point 1 above is accepted as the best approach, then this licensing approach is the simplest, fairest and most economical way to actually assign AeroMACS channels. We ask that you specifically support this approach in any comments you submit to the Commission. Licensing by rule increases flexibility and reduces the possibility that an entity "warehouses" spectrum it does not need at a particular airport.

- Technical Rules. The WiMAX Forum has included in its Petition the internationally adopted standards and technical rules for equipment certified to operate in the band. The technical rules for AeroMACS are derived from ICAO-adopted Standards and Recommended Practices (SARPS) and RTCA and EuroCAE published documents.
- Eligible Users. The Commission seeks comment on what non-Federal users should be considered “eligible users.” We have outlined in our Petition the various classes of users which in our view should be eligible users – and this non-exhaustive list includes broadly any entity which utilizes the spectrum in furtherance of the Safety and Regularity of Flight mandate for which the Spectrum was originally allocated. Airports, airlines, ANSPs and ANCPs are included in this list. We ask that you specifically support the group of eligible users described in the Petition.

**Finally – we ask you to URGE THE COMMISSION TO TAKE ACTION QUICKLY.** The WiMAX Forum has spent the better part of a year and a half discussing the elements of this Petition with interested stakeholders, and we salute the Commission for highlighting the key areas for consideration and comment. In your comments to the Commission, we ask you specifically to urge the FCC to adopt a Notice of Proposed Rulemaking with proposed service rules. The AeroMACS spectrum has been available for some time now and many equipment manufacturers have commercial kits available for deployment. Our labs are currently certifying two manufacturers’ equipment for compliance to AeroMACS standards. More equipment manufacturers are lining up to certify and deliver to the market innovative products and services dependent on AeroMACS spectrum being available. Many airports are waiting on the FCC Rulemaking to commence their own pilots and deployments. We believe there is broad consensus on the value of this spectrum to our ecosystem, and we urge you to ask the Commission to move quickly.

**Filing Instructions:** Comments may be filed electronically with the FCC at the following link: <http://fjallfoss.fcc.gov/ecfs2>. Please make sure to enter **RM-11793** in the field for “Specific Proceeding.” I have taken the liberty of preparing a template letter of support which some may find helpful. To access and use our template please click at the following: [AeroMACS Template](#). If you use this template, I encourage you to personalize your letter.

I thank you in advance for your consideration. This has been a long road, but one which has a clear and positive end in sight. With your help, we believe 2018 will be a very strong year for AeroMACS deployments in the USA. I remain completely at your disposition should you have any questions, comments or concerns and I would be delighted to speak with any of you should you care to discuss this personally. You may contact me at [info@WiMAXForum.org](mailto:info@WiMAXForum.org).

In June, the Federal Communications Commission (FCC) implemented changes to conform its rules to the outcomes from the World Radiocommunication Conference 2012 (WRC-12). Among the service rules, it allocates the 5000-5091 MHz band to the aeronautical mobile (route) service (AM(R)S) on a primary basis for Federal and non-Federal use. Additionally, AM(R)S use of the 5000-5030 MHz band extends the tuning range for the AeroMACS. This action promotes the use of AeroMACS and enables ground-to-aircraft communications to support both current applications and new ones that require more bandwidth. To review the complete Report and Order, please click [here](#).

On July 7, ARINC Characteristic 766 – Aeronautical Mobile Airport Communication System (AeroMACS) Transceiver and Aircraft Installation Standards was officially released. ARINC 766 defines the aircraft installation characteristics of an airborne radio transceiver capable of broadband wireless communication with an airport surface network. The AeroMACS Radio Unit (ARU) will operate in the protected frequency of 5091 MHz to 5150 MHz, utilizing the IEEE 802.16e WiMAX protocol. It is intended to offload some of the congested narrowband VHF airport traffic used for Aviation Technical Services (ATS) and Airline Operational Control (AOC) communications. ARU and antenna form, fit, function, and interfaces are described. For more information, please click [here](#).

This month, the WiMAX Forum [Smart Energy Working Group \(SEWG\)](#) participants, manufacturers, and utilities continue to discuss how Narrowband, the nationwide Upper 700 MHz A Block spectrum band in the form of two narrow, 1-megahertz channels, offers a unique solution to help the Smart Energy community meet their longstanding communication needs. The discussions include the value proposition, profile development, certification, spectrum policy, security, collaboration with IEEE, solutions available to the market, and more. If you would like more information about these discussions, please email [info@WiMAXForum.org](mailto:info@WiMAXForum.org).

The WiMAX Forum would like to extend a special welcome to [Eonti](#), this month's new member. Eonti Inc. provides industry-leading cyber security consulting and trust management services to clients worldwide. Eonti is founded on over 25 years of experiences in a variety of ecosystems such as cable, Public Key Infrastructure (PKI), Smart Grid, and WiFi. If you would like more information regarding the WiMAX Forum Membership benefits, please email [Membership@WiMAXForum.org](mailto:Membership@WiMAXForum.org).

To foster a prosperous environment and future for the WiMAX ecosystem, the [WiMAX Forum](#) with the participation of our [Member Companies](#) will host, attend, and participate globally with speakers in key industry events. Through our events, speaking opportunities, seminars, and webinars, we are reaching out to diverse audiences in the WiMAX community. Here is the summary of upcoming events that we are hosting and participating during the coming months:

- The WiMAX Forum will participate at the **ACI-NA Conference** on September 17-20, 2017 in Fort Worth, Texas. The WiMAX Forum will exhibit AeroMACS at **Booth 346**. Come learn more about [AeroMACS at ACI-NA Exhibition](#), and we would be happy to tell you all about AeroMACS solutions and developments.
- The WiMAX Forum President [Declan Byrne](#) will present AeroMACS at the **Avionics for NextGen** November 15, 2017 at 4:30-5:30PM in Herndon, Virginia. The [AeroMACS presentation at Avionics for NextGen](#) will highlight the latest developments and worldwide deployments.

We will continue to increase awareness of, educate, and meet with industry leaders worldwide about implementing and developing WiMAX, AeroMACS, and WiGRID networks in ways that will best serve all stakeholders. Our focus has been to share key lessons, concrete knowledge, and work together for the benefit of the industry. For more information about our events, please visit: [WiMAX Forum Events](#).

Please reach out to us if you have any questions or comments. We wish you all a prosperous month and we hope to see you soon.



Declan Byrne  
President  
WiMAX Forum

## INDUSTRY SPOTLIGHT

The WiMAX Forum maintains a bustling schedule of public appearances, white paper publications, webinars, and press releases on behalf of our industry. Below you can find the latest communications and most relevant activities.

- **WiMAX Forum Initiates Global Strategic Partnership with Eonti To Secure AeroMACS Networks**

This Partnership Delivers AeroMACS PKI Implementation and Management

The WiMAX Forum has announced the signing of a global strategic partnership agreement with Eonti Inc. (Eonti) to implement and manage the Aeronautical Mobile Airport Communication System (AeroMACS) Public Key Infrastructure (PKI). This development is a crucial step to commercializing the AeroMACS PKI so communications on the airport surface are secure and promote the overall safety and regularity of flight. The WiMAX Forum, as the PKI Management Authority, will provide oversight and guidance for the AeroMACS PKI. On behalf of the WiMAX Forum, Eonti provides end-to-end management services for a trusted PKI to support the PKI Management Authority. This helps meet the WiMAX Forum's objectives and ensure that the PKI operates according to the AeroMACS policies developed through the collaboration of Eonti and the WiMAX Forum Aviation Working Group (AWG).

**To read the complete press release, please click [here](#).**

- **ARINC 766 Defines Aircraft Installation Standards for AeroMACS Implementation**

Upgrading Wireless Communications with AeroMACS and Establishing the Safety and Regularity of Flight on the Airport Surface

The WiMAX Forum is pleased to recognize the publication of ARINC 766: Aeronautical Mobile Airport Communication System (AeroMACS) Transceiver and Aircraft Installation Standards, which specifies the form, fit, and function for AeroMACS to be installed in aircraft. The Airlines Electronic Engineering Committee (AEEC) produced this consensus-driven technical standard to define AeroMACS installation characteristics, bringing the industry closer to widespread AeroMACS implementation around the

globe. ARINC 766 defines the avionics equipment capable of providing AeroMACS connectivity on the aircraft, containing the physical dimensions, the electrical interface, and a description of the functions, operations, and interfaces of an AeroMACS Radio Unit (ARU) on commercial aircraft. This document contains specifics on interchangeability standards, system design considerations, interfaces and protocols, Management Information Base (MIB), and antenna specifics. Additionally, the project paper identifies more applications for Aviation Technical Services (ATS), Flight Information Services (FIS), and Airline Operational Control (AOC).

**To read the complete press release, please click [here](#).**

• **WRC-12 AeroMACS Implementation Report and Order**

Agency: Federal Communications Commission

On June 14, 2017, the FCC implemented allocation changes from the World Radiocommunication Conference held in Geneva on 2012 and updated its service rules. The Commission took this action to conform its rules, to the extent practical, to the decisions that the international community made at WRC-12. This action was taken to promote the advancement of new and expanded services and provide significant benefits to the American public. Among its service rules, it allocated the 5000-5091 MHz band to the aeronautical mobile (route) service (AM(R)S) on a primary basis for Federal and non-Federal use. AM(R)S use of the 5000-5030 MHz band extends the tuning range for the recently-established Aeronautical Mobile Airport Communications System (AeroMACS) that will support surface applications at airports.

**To read the complete Report and Order, please click [here](#).**

## EVENTS

In the coming months, the WiMAX Forum will host, participate, attend, and support events globally. We continue our efforts to bring you quality conferences hosted by the WiMAX Forum, and we will present and participate at key industry events. The WiMAX Forum team looks forward to seeing you at these events.

### Featured Events:

 <p><b>WIMAX FORUM®</b> <b>AeroMACS</b> @ ACI-NA/WORLD 2017 EXHIBITION FORT WORTH, TX   SEPT 17 - 20</p>	<p><b>AeroMACS Booth 346</b> September 17-20, 2017 Fort Worth, Texas For more information, please visit: <b>AeroMACS - Exhibition at ACI-NA</b></p>
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	<p><b>AeroMACS Presentation</b>  November 15, 2017  Herndon, Virginia  For more information, please visit:  <b>AeroMACS Presentation at Avionics for NextGen</b></p>
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**Upcoming Events:**

	<p>August 17-18, 2017  Pune, India  For more information, please visit:  <b>Telematics India</b></p>
	<p>August 22-23, 2017  Rio de Janeiro, Brazil  For more information, please visit:  <b>BSS&amp;OSS Latin America</b></p>
	<p>August 22-23, 2017  Rio de Janeiro, Brazil  For more information, please visit:  <b>Revenue Assurance &amp; Fraud Prevention Latin America</b></p>
	<p>August 22-23, 2017  Rio de Janeiro, Brazil  For more information, please visit:  <b>Customer Experience Management, Big Data &amp; Analytics</b></p>
	<p>September 6-7, 2017  Lima, Peru  For more information, please visit:  <b>Telecom Forum Peru</b></p>
	<p>September 6-8, 2017  Chicago, Illinois  For more information, please visit:  <b>Smart Cities Summit</b></p>

 <p>INDUSTRY OF THINGS WORLD</p>	<p>September 18-19, 2017 Berlin, Germany For more information, please visit: <b>Industry of Things World</b></p>
<p><b>STAR WEST</b></p> <hr/> <p>A TECHWELL EVENT</p>	<p>October 1-6, 2017 Anaheim, California For more information, please visit: <b>StarWest</b></p>

**Sponsorship Opportunities:** Increase your presence at the WiMAX Forum events through a sponsorship! Our high-profile events offer sponsors excellent visibility before, during and after the event. For more information about which event sponsorship may best suit your needs, please contact Alessandra Rocha at [Alessandra.Rocha@WiMAXForum.org](mailto:Alessandra.Rocha@WiMAXForum.org).

The WiMAX Forum plans to host and participate in other events over the course of year. As details concerning these events are finalized, we will be certain to keep you informed. **For more information about our events, please visit: [WiMAX Forum Events](#).**

## MEMBERSHIP SERVICES

The **WiMAX Forum Membership** provides a wide range of **benefits and services** that promote growth and innovation of AeroMACS, WiGRID, and WiMAX technology.

**The WiMAX Forum would like to extend a special welcome to the new members for 2017:**

- **Austro Control**
- **Comodo Group Inc.**
- **Eonti**
- **Jezetek**

Only WiMAX Forum Members can **certify** products to guarantee interoperability and standard compliance for AeroMACS, WiGRID, and WiMAX; secure networks using **Public Key Infrastructure (PKI)** certificates; develop technical specifications; influence favorable regulatory environments; and contribute to the growth of the industry through standards development that satisfy the market needs, among other advantages.

The WiMAX Forum is committed to delivering the value necessary for our members to get the most from their membership, and we are always engaging with individual members to discuss how we can

better serve them. If you are interested in speaking with our leadership team on our specific initiatives or have any questions, please send a message to [Membership@wimaxforum.org](mailto:Membership@wimaxforum.org).

**The WiMAX Forum is the best place to access, leverage, and influence the growth and development of the AeroMACS, WiGRID, and WiMAX Technology. So be a leader and step up to get involved today!**

## WORKING GROUPS

The **WiMAX Forum Working Groups** are the key to the development of WiMAX technology, currently focusing on **AeroMACS** and **Smart Energy**.

The Aviation Working Group (AWG) drives technical activity in three areas: AeroMACS Public Key Infrastructure (PKI), Product Certification for AeroMACS, and the FCC Policy Petition. It is a crucial time and a great opportunity to influence and leverage these activities so if you are interested in participating in our **Working Groups**, please contact us at [info@WiMAXForum.org](mailto:info@WiMAXForum.org).

The WiMAX Forum formed a partnership with Eonti to manage and implement AeroMACS PKI. This partnership will give the Forum the expertise needed as the Management Authority for AeroMACS PKI. The WiMAX Forum and International Civil Aviation Organization (ICAO) are finalizing an agreement to collaborate in the oversight of AeroMACS PKI for the ecosystem The AeroMACS Certificate Policy (CP) is mostly complete and can be published once the agreement is in place. We continue to collaborate with ICAO so that the AeroMACS PKI Certificate Policy will:

- Support and align with industry requirements.
- Serve as the governing document and basis for AeroMACS PKI.
- Act as a PKI model for other Aviation technologies.

The AWG is completing an AeroMACS PKI proof of concept trial to confirm the PKI Certificate Profiles and Policy as a last step to commercializing AeroMACS PKI.

The AWG Certification Task Group is developing test specifications and procedures for Protocol Conformance Tests (PCT) and validating these procedures in the WiMAX Forum AeroMACS Designated Certification Laboratory. Developing Interoperability Tests (IOT) specifications and procedures to support AeroMACS certification will be next as additional products go through Radio Conformance Testing (RCT).

Regarding the FCC Policy Petition, the Forum expects the FCC to issue a Notice of Proposed Rulemaking (NPRM) after submitting its Service Rule petition in March for the use of AeroMACS Spectrum in the United States. This activity will set the ground rules for exploitation of the spectrum for the next 20 years. To read more, please visit: [The WiMAX Forum Files FCC Petition for AeroMACS Service Rules](#).

The Smart Energy Working Group (SEWG) continues its outreach to utilities and vendors to research the desires and challenges for using the Narrowband spectrum while IEEE develops the 802.16s standard. Members continue to monitor the activity around the FCC's Citizens Broadband Radio Service (CBRS) rules that regulate the 3.5 GHz band and to form a viable shared spectrum ecosystem in the United States.

The WiMAX Forum organizes its technical activities through a number of Working Groups that produce technical requirements, develop technical specifications, or advise the forum. Working Groups are chartered by the WiMAX Forum to bring together content experts from member companies. These experts contribute to and harmonize documents and specifications and perform other tasks that the WiMAX Forum has determined to be necessary or useful. Technical Steering Committee coordinates all the Working Groups, which include:

- **AWG** - Aviation Working Group - *Procedures, Profiles & AeroMACS Initiative*
- **SEWG** - Smart Energy Working Group - *Requirements & WiGRID Initiative*
- **SPWG** - Service Provider Working Group - *Requirements & WiMAX Advanced Initiative*
- **TWG** - Technical Working Group - *Technical*
  - **CTG** - Certification Task Group - *Technical*
  - **NTG** - Network Task Group - *Technical*

You can learn more about the Working Group activities by visiting the member's workspace area to view the outcomes of recent Working Group sessions or join groups to receive emails related to that group's activities. To find more information on our Working Groups, please visit: [www.wimaxforum.org/Page/About/Working-Groups](http://www.wimaxforum.org/Page/About/Working-Groups).

**Working Group activity is integral to the success of the Forum, and your participation is important to the WiMAX community!**

## WiMAX FORUM NEWS

The WiMAX Forum weekly Newsbrief contains the summary of news from around the WiMAX ecosystem and is intended as a benefit to our community. If you do not yet receive the Newsbrief and wish to do so, please sign up here: [WiMAX Newsbrief](#).

**Below is a summary for the month of July:**

- [Important Message to AeroMACS Ecosystem – FCC Requests Comments on AeroMACS Petition](#)
- [WiMAX Forum Initiates Global Strategic Partnership with Eonti To Secure AeroMACS Networks](#)
- [How rugged wireless technology can reduce costs in oil and gas production](#)
- [SC-223 Internet Protocol Suite \(IPS\) and AeroMACS - Plenary](#)

- **From Surface to Space in Just Two Conferences**
- **Telecom Forum Peru in Lima and Smart Cities Summit in Chicago Taking Place in September 2017**
- **FAA Reauthorization and Modernization**
- **Broadband users in Pakistan top 44.32 million**
- **A modern aviation system for a modern world**
- **Hydro One to buy Avista Corp. for \$5.3 billion cash**
- **ARINC 766 Defines Aircraft Installation Standards for AeroMACS Implementation**
- **Fight For The Skies: The Air Traffic Control Debate**
- **Senate Panel Advances FAA Reauthorization Without Trump Privatization Plan**
- **A Mid-Band Spectrum Win in the Making**
- **The US-Europe air traffic management research and development seminar**
- **The business case for 5G fixed wireless access**
- **Customer Experience Management, Big Data & Analytics in August 2017**
- **Ofcom under fire over UK 5G spectrum cap**
- **3.65 GHz Licensees – Define Protection Zones!**
- **NextGen Advisory Committee Meeting**
- **Why Spectrum is not Bathwater**
- **BSS&OSS Latin America will be Hosted in Rio de Janeiro, Brazil this August**
- **T-Mobile's Proposal to FCC: Eliminate Unlicensed Use of 3.5 GHz Band**
- **Navigating through Air Traffic Control Reform: Is there a Better Way to Go?**
- **The Future of Aviation Demands Privatized Air-Traffic Control**
- **To Protect Aviation Industry from Hackers Embry-Riddle Offers Cybersecurity Certification**
- **Italy's Leonardo CEO Says Will Not Break Up Group**
- **Siemens CEO Says Rail Partnerships Possible Alternative to M&A**
- **FCC Public Notice: Wireless Telecommunications Bureau and Office of Engineering and Technology Seek Comment on Petitions for Rulemaking Regarding the Citizens Broadband Radio Service**
- **Congress split over privatizing U.S. air traffic control**
- **T-Mobile, CTIA Propose Changes to Citizens Broadband Radio Service**
- **5 Questions with ALTYS CEO on NextGen/SESAR Test Equipment**
- **Telematics 2017 this August in Pune, India to discuss the trends that guide the automotive industry**
- **Senate ignores Trump, moves bill that keeps FAA intact**
- **Tiscali announces EUR 13 mln capital hike**
- **Bangladesh has 7 crore internet users**
- **Facing the challenges and opportunities in financing aviation**
- **Qualcomm loses bid to throw out FTC antitrust lawsuit**

- **China to account for 39% of 5G connections in 2025**
- **June 2017 WiMAX Forum Monthly Newsletter**



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