Washington, DC, September 12, 2019 – RTCA’s Program Management Committee (PMC) held its fall meeting approving three critical guidance documents, reviewing workplans for the Special Committees (SC), and incorporating changes to the various committee Terms of Reference (TOR) that reflect leadership and work plan changes.

Chaired by Chris Hegarty of The MITRE Corporation, the 19-member PMC is the RTCA oversight body charged with producing timely and robust standards and guidance documents to ensure interoperability of aviation systems and equipment. The standards encourage innovation and serve as the basis for meeting Federal Aviation Administration (FAA) regulations. An important responsibility of the PMC is ensuring the operational application of the technical standards.

SEE PAGE 12

continued on page 3
CHAIRMAN’S COLUMN

A Perspective on the RTCA Program Management Committee (PMC) from George Ligler

In the April 2019 RTCA Digest, PMC Chairman Chris Hegarty provided an overview of how the Committee works and how it has adapted to RTCA’s transition to an independent Standards Development Organization (SDO). As Chris wrote, the formation of the PMC in 1998 was indicated by then-President Dave Watrous to represent “a move from a purely technical orientation to one seeking balance between technical and operational considerations.” Having just stepped down from the PMC after 19 years’ service, I offer a perspective on how the PMC has implemented this move and, in my view, improved the formation, management, and overall impact of RTCA’s Special Committees.

By way of background, I have served, as a participant and in a leadership capacity, in RTCA Special Committees since 1992 and was asked by President David Watrous to join the PMC to be a representative of our Special Committee volunteers. I can report that my PMC colleagues have, without exception, also been highly cognizant of the special nature of our Special Committee volunteers, and have worked diligently to provide an environment in which Special Committees are well-formed, supported, and in most cases highly impactful on the aviation industry.

With regard to Special Committee formation, the PMC, over time, has instituted valuable metrics in at least four areas. First, one or more letters requesting that a Special Committee be formed are required from persons within requesting organizations at a senior level. Second, the request needs to be accompanied by a draft Terms of Reference (TOR). Third, the draft TOR needs to be specific on envisaged use of Special Committee deliverables. Finally, the proposed Special Committee must be supported by at least two major equipment manufacturers—and “support” means a commitment to participate.

The PMC spends a great deal of time supporting Special Committees once they are formed—simply approving documents sent to the PMC by the Special Committees after Final Review and Comment (FRAC) is only a small percentage of this time. For example, numerous PMC ad-hoc subgroups have been created during my tenure on the PMC (and I have participated in approximately two dozen such ad-hoc subgroups) to deal in a timely fashion with particular issues brought to the PMC by Special Committee leaderships. A second example: since 2009, the PMC has requested its Integration and Coordination Committee (ICC) to assist the PMC on particular topics which involve coordination of two or more Special Committees to achieve appropriate integration of those Special Committees’ efforts. We are increasingly finding that Special Committees are effectively developing requirements for equipment that is being standardized by other Special Committees.

The result of these PMC activities is that Special Committees have been assisted in developing and completing over 135 new standards (and revisions and updates to those standards) during my time on the PMC, in addition to numerous updates to earlier standards. Many of these standards have been highly impactful on aviation in areas including but not limited to aeronautical communications, navigation, and surveillance. Being on the PMC has been a highly collaborative, educational, and fulfilling experience, and I am grateful to my past and present PMC colleagues and particularly grateful to our wonderful Special Committee volunteers!
The PMC approved three standards covering the following areas:

- **Safety and Performance Requirements Standard for Air Traffic Data Link Services in Continental Airspace (Continental SPR Standard)** needed a change to remove any reference to DM89 MONITORING message element as being required to support any datalink operations to make the document consistent with actual datalink procedures. It was prepared by SC-214, Standards for Air Traffic Data Communications Services.

- **The Minimum Operational Performance Standards (MOPS) for Airborne Collision Avoidance System X (ACAS X) (ACAS Xa and ACAS X0)** needed important corrections and clarifications, contained in the MOPS tests (primarily with Section 2.4). This set of changes is highly desirable for FAA Aircraft Certification so that it can be cited in its ACAS Xa TSO which is scheduled for comments release this fall. It was prepared by SC-147, Traffic Alert & Collision Avoidance Systems.

- **Aviation Profiles for Internet Protocol Suite (IPS)** specifies the unique adaptations required to enable the current Internet Engineering Task Force (IETF) Request for Comment (RFC) documents to specify technical requirements for Aeronautical data communications between an aircraft system and its corresponding peer host systems on the ground. It was prepared by SC-223, Internet Protocol Suite (IPS).

Three special committees received approval for changes to their work plans. These included SC-223, Internet Protocol Suite (IPS). SC-228, Minimum Performance Standards for Unmanned Aircraft Systems, and SC-229, 406 MHz Emergency Locator Transmitters (ELTs).

Details from the September 12, 2019 PMC meeting are contained in a letter from Chairman Hegarty to FAA Associate Administrator for Aviation Safety, Ali Bahrami.
COMMITTEE
SC-206, Aeronautical Information and Meteorological Data Link Services

CO-CHAIRS
Tom Evans, NASA
Rocky Stone, United Airlines, Inc.

NEXT MEETING
December 9-13, 2019, at Honeywell International, Inc. Phoenix, AZ

SC-206 met in mid-September in Toulouse, France and was hosted by.
Sub Group (SG)-1 is concentrating on addressing the committee’s Inter-Special Committee Requirements Agreements (ISRAs) with SC-186, Automatic Dependent Surveillance-Broadcast (ADS-B) and SC-209, Air Traffic Control Radar Beacon System/Mode Select (ATCRBS/Mode S) Transponder through the Combined Surveillance Committee (CSC) WxS SG.
SG-6 continues work on revising DO-364, Minimum Aviation System Performance Standards (MASPS) for Aeronautical Information/Meteorological Data Link Services, as a joint document with EUROCAE Working Group (WG) 76 expecting publication in early 2021.

AIRPORT SECURITY ACCESS CONTROL SYSTEMS

COMMITTEE
SC-224, Airport Security Access Control Systems

CO-CHAIRS
Alan Paterno, Transportation Security Administration
Christer Wilkinson, AECOM Technology Solutions

NEXT MEETING
November 21, 2019, at RTCA, Washington, DC

SC-224 met September 26th at RTCA for Final Review and Comment (FRAC) resolution on DO-230J, Standards for Airport Security Access Control System. This version primarily updates the credentialing, procurement, biometrics and video sections. This document is currently scheduled to be presented to the Program Management Committee (PMC) for publication in December 2019.
STANDARDS FOR AIR TRAFFIC DATA COMMUNICATION SERVICES

SC-214 VDL Subgroup (SG) met September 17-20, 2019, in Dublin, Ireland at the Airtel ATN facility. This was a continued joint collaboration meeting with EUROCAE Working Group (WG) 92 VDL Mode 2 and ARINC Airlines Electronic Engineering Committee (AEEC) Data Link (DLK) Systems Subcommittee.

The group continues work on DO-224E, Signal-In-Space Minimum Aviation System Performance Standards (MASPS) For Advanced VHF Digital Data Communications Including Compatibility with Digital Voice Techniques, scheduled for completion in late 2020. They are also working on a new companion document to cover ground equipment associated with the VDL Mode 2 systems.

Additionally, SC-214 and WG-78 completed Final Review and Comment/Open Consultation (FRAC/OC) resolution on Change 3 to DO-290/ED-120, Safety and Performance Requirements Standard for Air Traffic Data Link Services in Continental Airspace in September. The documents were published September 24th.

CALL FOR NOMINATIONS: THE WILLIAM E. JACKSON AWARD

RTCA presents the William E. Jackson award to an outstanding student in the field of aviation electronics and telecommunications in honor of William E. Jackson, a pioneer in the development and implementation of the nation’s air traffic control system and an enthusiastic supporter of student engineers. The recipient of this award receives a personalized plaque and a $5000 honorarium presented at a special banquet during the RTCA Annual Symposium.

Any graduate student studying for a degree in the field of aviation electronics, software, or telecommunication systems is eligible. Submissions must be in the form of a thesis, project report or technical journal paper. The work on which the submission is based must have been completed within the three years preceding the closing date and the papers submitted for consideration must be written in English and provided without publication restrictions.

For additional questions email RTCA Program Director Karan Hofmann, khofmann@rtca.org, or visit the William E. Jackson Award page.

Spread the word to deserving graduates—the deadline is Monday, December 2nd.

RTCA’s 2019 W.E. Jackson Award Winner Pengfei (Phil) Duan
NEW TRAINING OPPORTUNITIES FOR RTCA

RTCA has signed a new training agreement with Mannarino Systems & Software, Inc. Four new technical seminars will be available in 2020, expanding the suite of training programs and seminars that RTCA provides for the aviation industry. The seminars will offer aviation industry participants proficient domain knowledge on topics relevant to current challenges in aircraft systems, software and electronic hardware development.

“I am pleased to be partnering with MANNARINO in broadening our training catalog”, said Terry McVenes, President and CEO of RTCA. “These new courses will continue our goal to facilitate the use of key documents by our stakeholders and further the understanding of developing and using global standards and guidance.”

“We are extremely proud to have the opportunity to work with RTCA and bring our practical experience, methods and efficient approaches to satisfying regulatory requirements on increasingly complex development projects” indicated John Mannarino, President of Mannarino Systems & Software.

Details and dates for the new seminars will be announced shortly.
NEW DOCUMENTS

Air Traffic Data Communication Services

DO-290 Change 3, Safety and Performance Requirements Standard for Air Traffic Data Link Services in Continental Airspace (Continental SPR Standard)
Issued 09-24-2019 | Prepared by SC-214

Change 3 to DO-290/ED-120 is to remove any reference to DM89 MONITORING message element as being required to support any datalink operations. This approach makes DO-290/ED-120 consistent with actual datalink procedures, in line with the approach already agreed by EUROCAE/RTCA subject matter experts when Baseline 2 Datalink standards were developed.

This change allows both existing ATN B1 interoperability standards (DO-280B/ED-110B) and B2 interoperability standards (DO-353A/ED-231A) being recognized as acceptable means of compliance with DO-290/ED-120.

Internet Protocol Suite (IPS)

DO-379, Internet Protocol Suite Profiles
Issued 09-16-2019 | Prepared by SC-223

This Internet Protocol Suite (IPS) Profiles document specifies the unique adaptations required to enable the current Internet Engineering Task Force (IETF) Request for Comment (RFC) documents to specify technical requirements for Aeronautical data communications between an aircraft system and its corresponding peer host systems on the ground. It should be noted that these Profiles may be applied to support ground-ground aeronautical communications as well as command and control communication of Remotely Piloted Aircraft Systems (RPAS) or Unmanned Aircraft Systems (UAS). Additional provisions would be required to support air-ground digital voice. Voice communication may be supported using these Profiles. However, no special provisions have been made in these Profiles for digital voice or ground-ground communications. The Profiles document was developed under collaboration between the RTCA Special Committee (SC) 223 SC-223 and the European Organization for Civil Aviation Equipment EUROCAE Working Group (WG)-108.

The "purpose and scope" section concentrates on introducing the technology and describes the Terms of Reference (ToR) agreement for IPS profiles development. It defines the bounds of the investigation, the required cooperation between RTCA and EUROCAE and provides a clear scope prescribing guidelines for profiles development. In this section, various glossary terms used in the document are described.

The background section provides an overview of system characteristics including concept of operations and principal users of IPS. The operational concepts illustrate the different operational environments and requirements this technology is required to meet. A description of assumptions is provided in the IPS Minimum Aviation System Performance Standards (MASPS) along with verification procedures necessary to validate profile parameter selection.

The technical profiles section describes technical parameter selection required to meet aviation communication requirements. The objective of the parameter and specific requirement selection is to ensure deterministic behavior of IPS system and to ensure interoperability of various IPS sub-systems supporting safety of flight services. As IPS encompasses a variety of hosts and routers, a set of device classes has been defined for IPS and parameters are assigned to each device class to meet the operational uses for different environments supporting different aeronautical safety services.

Traffic Alert & Collision Avoidance System (TCAS)

DO-385 Change 1, Minimum Operational Performance Standards for Airborne Collision Avoidance System X (ACAS X) (ACAS Xa and ACAS Xo)
Issued 09-16-2019 | Prepared by SC-147

This document, DO-385/ED-256 Change 1, is limited to changes which correct or clarify the ACAS Xa/Xo MOPS, RTCA DO-385/EUROCAE ED-256, Volume I. The changes embodied in this document went through the SC-147/WG-75 Change Proposal/Change Management Process.

For additional information and to order documents, visit RTCA’s store at https://my.rtca.org/nc__store. RTCA Members may download electronic documents at no cost and qualify for a 60% discount on paper documents.
Arrival Jet  
London, UNITED KINGDOM

Arrival Jet is a research and development organization aimed at developing a fleet demonstrator UAVs for urban mobility, namely for the transport of cargo via both inter and intracity operations.

ASKA  
Mountain View, California USA

ASKA is a fly-drive vehicle, the latest entry in the eVTOL Urban Air Mobility arena. ASKA, which is Japanese for “flying bird”, will have a manufacturing and quality assurance center in Japan with a concept for an autonomous flying car.

ASKA has foldable wings that store on top of the vehicle for operation on the road. It achieves flight using multiple ducted fans embedded in the body of the vehicle and thrust for flight is provided with additional ducted fans on the wings.

ASKA is the size of an SUV with a UAM range of up to 350 miles. The vehicle accommodates up to three people and runs on rechargeable batteries with a range extender (hybrid) propulsion system.

ASKA flies autonomously with its unique Sense & Avoid system. Sophisticated AI for detection & collision avoidance in the air, dealing with air challenges by sensing, building an awareness picture and choosing the best safety action in the flight path. ASKA has a unique IP for autonomous systems that validates and verifies these capabilities. The company plans to integrate it with existing autonomous driving systems to make ASKA fully autonomous in the air and on the road.

CETC Northwest Group Co., LTD.  
Xi’an, Shaanxi CHINA

CETC Northwest Co., Ltd., which is one of the secondary member unit of CETC, is the leading navigation technology specialist in China. It designs, produces, and integrates navigation equipment, communication systems and radars for civil applications. It is the leader of new air navigation technology, the provider of navigation equipment and the integrator of ATM systems.

DeTech Inc.  
Panama City, Florida USA

DeTect specializes in advanced radar and other sensor technologies. The company is the leader in bird radar technologies for real-time aircraft bird strike avoidance, wind energy bird mortality risk assessment and mitigation, and industrial bird control with over 180 of its MERLIN bird radars operating in the US, Canada, Europe, Africa and Asia. The unique radar signal processing technology in MERLIN, developed specifically for reliable detection and tracking of small, non-cooperative, low radar-cross section, non-linearly moving targets, is also used in DeTect’s HARRIER Security and Surveillance Radar making it one of the most sensitive, low cost radar systems on the market today for airspace and marine security applications including drone and UAV detection and defense, Ground Based Sense-and-Avoid (GBSAA) and virtual air traffic control. In 2012, DeTect also deployed the first radar-activated wind farm turbine obstruction lighting system in the US - a HARRIER Aircraft Detection Lighting System (ADLS) - that provides automated activation of wind turbine obstruction lights when aircraft are detected within a specified distance of the wind farm. In 2016, DeTect expanded its drone surveillance capabilities with the launch of its DroneWatcher system that includes an Android application, DroneWatcher APP, that makes a smartphone or tablet into a short-range drone detector. DroneWatcher also includes an advanced radiofrequency (RF) sensor, DroneWatcher RF, for longer range detection, tracking, identification and interdiction of drones and small UAVs. Combined, with the DroneWatcher Drone Surveillance Radar (DSR), DroneWatcher APP and RF provide the highest level of multi-layer comprehensive, multi-layer drone defense available.

M2P Consulting, Inc.  
New York, New York USA

Mostert Ploog & Partners (M2P) is an international strategy consultancy that helps clients transform and accelerate with real impact to succeed in the ever-changing marketplace. M2P specialize in Travel, Transportation and Logistics with clients ranging from airports to retail and government organizations.

QRA Corp  
Halifax, Nova Scotia CANADA

QRA Corp is a company which provides enterprise software tools for the early-stage validation and verification of engineered systems. The Company’s main product is QVscribe which analyzes requirements documents, finds ambiguities and inconsistencies, and generates actionable reports. It also offers QVtrace which verifies the presence of expected behaviour and the absence of unwanted behaviour in complex model-based designs.
New Members (continued)

Skydweller
Alexandria, Virginia USA

Skydweller is a US-Spanish aerospace company developing the world’s first solar-powered, unmanned perpetual flight vehicles. These unprecedented autonomous systems will enhance government and commercial telecommunication, geospatial, meteorological, and emergency operation efforts around the world allowing customers to operate in more challenging areas for longer durations with reduced environmental impact.

TEA Aviation Services
Frisco, Texas USA

TEA Aviation Services is a known aerospace industry leader for engineering, design, and program management. The company offers a complete suite of commercial aerospace and defense engineering services such as aircraft modification design, FAA & EASA STC certification assistance, and complete project management solutions to complement and lead engineering and manufacturing teams through design, development, qualification, and production.

The DiSTI Corporation
Orlando, Florida USA

DiSTI is the leading provider of both turn-key and customized HMI software and 3D virtual maintenance training solutions for: Embedded Target Systems, Desktop, Mobile, Virtual Reality and Augmented Reality.

DiSTI software products and professional services have pioneered the advancement of UIs and virtual maintenance training for Global 500 companies, military organizations, and commercial clientele from around the world.

Today, DiSTI’s user interface tools and technologies produce a range of 3D applications from embedded automotive displays to complete virtual training solutions.

DiSTI has earned ISO 9001:2015 certification.

Qianxun Spatial Intelligence Inc.
Shanghai, Anhui CHINA

Qianxun Spatial Intelligence Inc. (Qianxun SI) is a world’s leading high-precision positioning service provider. They offer position service up to centimeter level accuracy (real-time) and millimeter level accuracy (post-processing), which is one of the most important infrastructures in the IoT Era.

Qianxun SI was founded on August 18th, 2015, a joint venture of Norinco Group and Alibaba Group (NYSE: BABA). Based on raw observation data delivered by four GNSS constellations (incl. Beidou, GPS, GLONASS and Galileo), Qianxun services, accessing through internet, by utilizing self-built ground-based augmentation system (incl. more than 2400 reference stations) and self-developed positioning algorithms, dramatically improve positioning accuracy. Thus, Qianxun SI provide high-precision positioning and relative LBS solutions for users across China.

Wing Aviation
Palo Alto, California USA

Wing’s flight operations software was built to provide UTM services and allows Wing, as well as recreational drone operators and aviation service providers, to manage complex flight paths and monitor the aircraft in real time. Wing’s software was informed by its work with international government partners, including NASA and the Federal Aviation Administration (FAA) in the United States and the Civil Aviation Safety Authority (CASA) in Australia.
SC-231, met for their 15th Plenary in September at RTCA in Washington, DC. The Committee is working on reviewing the NTSB findings, A-17-035 and A-18-015, and the GAJSC Working Group (WG) recommendations concerning accidents between 500 and 700 ft in mountainous terrain.

The group reviewed the potential solutions and is working to compare the effort and complexity of implementation. They hope to engage Alaskan operators who use the Class B/C systems to evaluate the potential solutions and their viability in the cockpit.

### TERRAIN AWARENESS WARNING SYSTEM (TAWS)

**COMMITTEE**

SC-231, Terrain Awareness Warning System (TAWS)

**CO-CHAIRS**

Yasuo Ishihara, Honeywell International, Inc.

Rick Ridenour, ACSS

**NEXT MEETING**

December 4-5, 2019

location TBD
If you want to find out more about getting your electronics hardware certified for use on aircraft, then you should attend this comprehensive RTCA training course.

**ARE YOU THINKING OF TAKING DO-254 TRAINING?**

- Have you been assigned the task of preparing a PHAC without knowing what you are expected to include?
- Do you know if your project is for a simple or complex device and what it will mean to your plan for certification?
- Do you need to communicate why following DO-254 could help save your project time and money?

- Three days of instruction focused on the details of DO-254
- Registration discount for RTCA members
- Online registration on RTCA’s DO-254 Training site.

Next Class: December 9-11, 2019

Classes start at 8am and end at 5pm each day.

Questions? Contact training@rtca.org

RTCA | 1150 18th Street NW, Suite 475, Washington, DC 20036

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**COMMITTEE**

SC-216, Aeronautical Systems Security

**CHAIR**

David Pierce, General Electric Aviation

**NEXT MEETING**

November 18-21, 2019, at RTCA, Washington, DC
Security Airworthiness Certification Training Course

NEW DATES ADDED

DECEMBER 10-12, 2019
JANUARY 13-15, 2020

RTCA has teamed with Wichita State University’s National Institute for Aviation Research (WSU-NIAR) to offer another high quality training course covering the RTCA Security Suite: DO-326A, Airworthiness Security Process Specification; DO-355, Information Security Guidance for Continuing Airworthiness; and DO-356A, Airworthiness Security Methods and Considerations. This course describes what Airworthiness Security is and why it is important. It also explains which FAA Regulations, standards, etc. will require these documents and procedures as well as how to use these standards. The course will also cover what the standards are meant to prevent and how these standards and processes fit into the aviation system.

Member Price: U$1,935.00
Non-Member Price: U$2,472.50

For additional questions email training@rtca.org
If you need better answers to these and other questions, join the graduates who have benefited from our course. Register early to guarantee your seat.

- Do you know how the Software Life Cycle at your organization relates to the Software Development Process that supports producing software which can approved?
- Is your System Process supporting your Software Development Cycle to ease implementation of the aspects of certification for software?
- Can you explain how what you do in your software process relates to a certification process?
- Three days of instruction focused on the details of DO-178C
- Registration discount for RTCA members
- Online registration on RTCA’s DO-178C Training site

Classes start at 8:30am and end at 5pm each day.

Questions? Contact training@rtca.org

Next Class: December 2-4, 2019
RTCA ONLINE STORE

Your one-stop resource center for documents, many of which serve as a basis for FAA Certification.

RTCA Documents:
- Establish a common understanding of performance requirements
- Ensure interoperability of equipment, systems and processes in the highly complex, safety-critical aviation enterprise
- Expedite innovations to market

For additional information and to order documents, please visit rtca.org.
DO-178C, SOFTWARE CONSIDERATIONS IN AIRBORNE SYSTEMS AND EQUIPMENT CERTIFICATION, TRAINING COURSE

December 2-4 at RTCA

RTCA, Inc. has teamed up with The MITRE Aviation Institute to offer high quality and relevant training for the aviation industry in understanding the requirements and parameters for avionics software development necessary to obtain FAA certification.

The two world class organizations are using their collective experience and expertise to provide training on the new standards and recommended practices contained in the DO-178C, *Software Considerations in Airborne Systems and Equipment Certification*.

In addition to the comprehensive course manual developed by the experts at The MITRE Aviation Institute, each training course attendee will receive the latest standards developed over a six-year period by RTCA Special Committee 205.

The course is led by instructors who will provide a thorough understanding of the requirements and the applicability of DO-178C; the fundamental techniques of software development considerations in airborne systems and equipment certification; and an introduction and overview of *Software Tool Qualification Considerations*, *Model-Based Development and Verification Supplement to DO-178C and DO-278A*, *Object-Oriented Technology and Related Techniques Supplement to DO-178C*, and *Model-Based Development and Verification Supplement to DO-178C, and Object Oriented Technology and Related Techniques Supplement to DO-178C*.

SUPPLEMENTS TO DO-178C, SOFTWARE CONSIDERATIONS IN AIRBORNE SYSTEMS AND EQUIPMENT CERTIFICATION, TRAINING COURSE

December 5 at RTCA

As an adjunct to DO-178C, this course will provide the background and scope on the four documents supporting DO-178C:

- DO-330, *Software Tool Qualification Considerations*
- DO-331, *Model-Based Development and Verification Supplement to DO-178C and DO-278A*
- DO-332, *Object-Oriented Technology and Related Techniques Supplement to DO-178C and DO-278A*
- DO-333, *Formal Methods Supplement to DO-178C and DO-278A*

Attendees will receive detailed instruction on DO-331 covering the objectives, activities, explanatory text and software life cycle data that should be applied when model-based development and verification are used as part of the software life cycle.

In addition, the training will cover the systems requirements linkage to the DO-178C and Supplement processes through an explanation of the interface to ARP 4754A, *Guidelines for Development of Civil Aircraft and Systems*.

*Unless otherwise noted, all training courses will take place at RTCA Headquarters, located conveniently in downtown Washington, DC. For additional information, please visit www.rtca.org or email training@rtca.org.*
DO-254, DESIGN ASSURANCE GUIDANCE FOR AIRBORNE ELECTRONIC HARDWARE, TRAINING COURSE

December 9-11 at RTCA

RTCA is hosting a three-day training course, tailored specifically to design/verification engineers and project/certification managers requiring DO-254 compliance.

This three-day course will:

• Provide an overview and application of RTCA DO-254, as defined by current FAA and EASA guidance in airborne electronic systems.
• Describe how to apply the DO-254 lifecycle and supporting processes; understand system safety assessments and the design assurance level (DAL); and set up a project correctly through proper planning and standards.
• Present techniques and writing requirements for electronic hardware, and how to optimize requirements for verification processes.
• Describe how to efficiently and effectively verify requirements with simulation and hardware tests.
• Address specific considerations for programmable logic devices (PLDs) such as FPGA/ASIC versus all electronics; commercial off-the-shelf (COTS) components usage; and tool assessment and qualification.

DO-160G, ENVIRONMENTAL CONDITIONS AND TEST PROCEDURES FOR AIRBORNE EQUIPMENT, TRAINING COURSE

December 2-5 at RTCA

RTCA, in partnership with Wichita State University’s National Institute for Aviation Research (WSU-NIAR), offers high quality training covering RTCA’s DO-160G, Environmental Conditions and Test Procedures for Airborne Equipment. The course will provide an understanding of the use of DO-160G and how it fits in with the greater picture of requirements, design, certification and TSOs.

Course participants will gain a clear and relevant understanding of the applicable FAA regulations, advisory material, certification procedures, design approaches/trade-offs, inspection and conformity requirements, as well as details of the necessary parts of a test plan, test report, compliance plan and compliance report. A strong focus is placed on the reduction of risk, cost and schedule throughout the design/certification process, by use of targeted design and increased first-pass success on design and testing. In addition to a comprehensive course manual, each training course attendee will receive a copy of RTCA’s DO-160G, supporting material, and will participate in real-world exercises applying the knowledge learned from the class.

*Unless otherwise noted, all training courses will take place at RTCA Headquarters, located conveniently in downtown Washington, DC. For additional information, please visit www.rtca.org or email training@rtca.org.
RTCA CALENDAR

October

October 4
Hosted by RTCA
Washington, DC

October 11
SC-236, Standards for Wireless Avionics Intra-Communication Systems (WAIC) within 4200-4400 MHz
Hosted by Lufthansa
Hamburg, Germany

October 25
SC-135, Environmental Testing
Hosted by Garmin
Salem, Oregon

October 28-20
Airworthiness Security Certification Training
Hosted by RTCA
Washington, DC

November

November 4-12
SC-230, Airborne Weather Detection Systems
Hosted by University of Oklahoma
Norman, OK

November 18-21
SC-216, Aeronautical System Security
Hosted by RTCA
Washington, DC

November 19
SC-222, AMS(R)S
Hosted by RTCA, Virtual

November 21
SC-222, AMS(R)S
Hosted by RTCA, Virtual

November 21
SC-224, Airport Security Access Control Systems
Hosted by RTCA
Washington, DC

December

December 2-5
DO-160G Training
Hosted by RTCA
Washington, DC

December 2-4
DO-178C Training
Hosted by RTCA
Washington, DC

January

January 13-15
Airworthiness Security Certification Training
Hosted by RTCA
Washington, DC