WASHINGTON, DC, DECEMBER 19, 2019 – RTCA’s Program Management Committee (PMC) held its winter meeting approving one guidance document, reviewing workplans for the Special Committees (SC), and incorporating changes to the various committee Terms of References (TOR) that reflect leadership and work plan changes.

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RTCA DEVELOPING NEW HUMAN FACTORS COURSE!

SEE PAGE 11
Chaired by Dr. 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. The Members of the PMC approved one revised standard:

- Guidelines for airport security access control systems incorporating the latest technological advances with substantive changes in the biometrics, communications, credentialing, physical access control system, and video surveillance sections and minor changes throughout other sections of the document. Advances in Biometrics technology, Artificial Intelligence (AI), neural networks, and facial recognition have been included in the biometrics section including international plans and references. This document was prepared by SC-224, Standards for Airport Security Access Control Systems.

Two new committees were approved SC-238, Counter UAS and SC-239, Low Range Radar Altimeter. Five special committees received approval for changes to their work plans. These included SC-159, Navigation Equipment Using the Global Navigation Satellite System (GNSS), SC-186, Automatic Dependent Surveillance Broadcast (ADS-B), SC-206, Aeronautical Information and Meteorological Data Link Services, SC-213, Enhanced Flight Vision Systems/Synthetic Vision Systems, and SC-236, Standards for Wireless Avionics Intra-Communication System (WAIC) within 4200-4400 MHz. Details from the December 19, 2019 PMC meeting are contained in a letter from Chairman Hegarty to FAA Associate Administrator for Aviation Safety, Ali Bahrami.

RTCA CALL FOR INTEREST TO PARTICIPATE: SC-239, LOW RANGE RADAR ALTIMETERS

RTCA would like to request your consideration in joining a new committee being formed to update the current DO-155, Minimum Operational Performance Standard, for Low Range Radar Altimeters. The group will be focused on protecting future Radar Altimeters from existing and planned IN BAND and OUT OF BAND interferences.

RTCA is planning to have this committee operate as a joint committee with a new EUROCAE working group (WG) 119 and to update DO-155 to be a technically equivalent document with ED-30 supporting a TSO/ETSO.

If you are interested in participating in the committee, please contact committees@rtca.org by February 28, 2020. The first Plenary is scheduled for June 3-5, 2020 at RTCA, Washington, DC.
JOIN RTCA
...HELP SHAPE THE SKIES OF TOMORROW

Member Benefits Include:

- Unlimited free electronic downloads on RTCA library of well over 350 documents and 60% discount on hard copies (certain restrictions may apply).
- Participation in Special Committees and advance notice of all new committees
- Recognition as an organization committed to the consensus technical recommendation process
- Advance information of new RTCA documents
- Access to RTCA staff experts that provide responses to questions about our published or evolving standards
- Discounts to attend and/or exhibit at the RTCA Annual Symposium as well as discounts to attend Forum events and RTCA training courses.
- Subscription to the RTCA Digest, keeping you informed about RTCA’s vast efforts to shape the future of CNS/ATM
- Member-only access to the RTCA Membership Directory Online, connecting you with your aviation colleagues within more than 500 + member organizations

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[links to social media pages]

Join RTCA Today!
COMMITTEE SPOTLIGHT: RTCA WISHES A HAPPY RETIREMENT TO TWO INFLUENTIAL MEMBERS OF SC-206

Upon publication of Special Committee (SC) 206, Aeronautical Information and Meteorological Data Link Services final document, Minimum Operational Performance Standards (MOPS) for Flight Information Services – Broadcast (FIS-B) with Universal Access Transceiver, RTCA said goodbye to two of its distinguished members, Mark Mutchler and Committee Co-Chairman Tom Evans, who have both recently retired.

**Mark Mutchler**'s involvement with RTCA began around 2008. He's an Air Force veteran and had been working as a meteorologist for the National Weather Service before joining the FAA and becoming involved with RTCA. His expertise was bringing weather technology to the general aviation environment. He worked on several committees before joining SC-206. Mark enjoyed working on concept of use documents and on projects that influenced terms of references across several documents. Mark noted he will miss the good-natured ribbing he and his fellow committee members took part in when they would meet on the road, oftentimes pretending it was an unsuspecting committee member's birthday while at a restaurant after a long day of work.

“The best part of RTCA is that it brings together representatives across the industry to help draft and create better procedures,” said Mark. “And for me, the best part has been the people. The work we have done has been interesting and challenging, but it’s the kind of camaraderie that we developed and the closeness of the group, for me, was what I take away from my time with RTCA.”

In retirement, Mark plans to travel with his teenage son, preferably to Green Bay Packers games. He also plans to expand into a new endeavor he has undertaken, using cedar wood trees on farmland he owns to make canes for veterans.

**Tom Evans** has been a part of RTCA since 2002, when he worked on committees dealing with terrain warning systems. He has worked on numerous documents over the years, and became secretary of a couple of committees before becoming Co-Chairman of SC-206. He says he long admired the leadership he saw when he was a committee member, watching how chairmen would prepare, motivate others, reign them in and drive consensus, as well as how committees would work with their international counterparts. His lengthy career with NASA prepared him well, as he brought with him experience as a computer engineer and a part of NASA’s team tasked with working on display concepts, extensively testing simulations with commercial airline pilots brought in to fly scenarios. Tom also worked at NASA’s Langley Research Center testing technology that would eventually be used in commercial products.

“I’ve always found RTCA committee work to be fun,” said Tom. “I’ve learned a lot about not only aviation, but also about the capabilities of other people and the awesome, talented people associated with RTCA.”

Tom plans to travel with his family during retirement, and tackle projects around his house when he’s not on the golf course or spending time reading.
TRAFFIC ALERT & COLLISION AVOIDANCE SYSTEM (TCAS)

SC-147 met jointly with EUROCAE Working Group (WG) 75 in a virtual plenary session on January 21, 2020. After reviewing and approving the minutes from the previous plenary session and setting the dates for upcoming meetings, the committee heard about the recently completed Final Review and Comment (FRAC) of the CAS Minimum Aviation System Performance Standards (MASPS). This document was restructured by the CWG/CSG in order to address some of the more significant comments received during the FRAC and ensure that new materials were incorporated for clarification. Because of this, the document will be sent for a second round of review in another FRAC cycle.

In addition, Mr. Stuart Searight, committee co-Chairman, presented changes to the committee Terms of Reference (TOR) for the review and approval of the group. This included updating the due date of the CAS MASPS to a later Program Management Committee (PMC) meeting, for publication and the inclusion of ACAS sXu that addresses smaller UAS.

SC-147 and EUROCAE WG-75 are working jointly in the development of the CAS MASPS and ACAS sXu documents and EUROCAE has yet to determine if they will participate in the sXu development.

AUTOMATIC DEPENDENT SURVEILLANCE - BROADCAST (ADS-B)

SC-186 met in Plenary on January 31 in a plenary session hosted in Melbourne, FL by Collins Aerospace. The meeting took place commensurate with the penultimate Combined Surveillance Committee (CSC) meeting along with SC-209 and EUROCAE Working Group (WG)-51 and WG-49. During the meeting, the DO-361A/ED236A Final Review and Comment (FRAC) cycle was closed. All FRAC comments were reviewed and agreed to and the final document destined for PMC submission in late February 2020. The Committee is also working toward revisions to DO-260, Minimum Operational Performance Standards (MOPS) for 1090 MHz Automatic Dependent Surveillance – Broadcast (ADS-B) and DO-282, Minimum Operational Performance Standards (MOPS) for Universal Access Transceiver (UAT) Automatic Dependent Surveillance – Broadcast (ADS-B).
AIRPORT SECURITY ACCESS CONTROL SYSTEMS

SC-224 met January 16th at RTCA to continue work on DO-230K, Standards for Airport Security Access Control System. This version will include updates to the credentialing, integration, procurement, and biometrics sections with new sections on facilitation and cybersecurity to be added. The group decided to dedicate this release to recently passed Lenard Wood, a long time significant contributor to the committee and the aviation community.

This document is currently scheduled to be presented to the Program Management Committee (PMC) for publication in late 2021.

HELIicopter TERRAIN AWARENESS WARNING SYSTEM (HTAWS)

SC-237 met jointly with EUROCAE Working Group (WG) 110 for its third joint plenary at EASA in Cologne, Germany in December. The group continues to develop the Minimum Operating Performance Standard (MOPS) to identify requirements for helicopters undertaking offshore operations. They are expected to complete their draft in December 2020 and present to the Program Management Committee (PMC) in March 2021.
AERONAUTICAL INFORMATION AND METEOROLOGICAL DATA LINK SERVICES

SC-206 met for Plenary and sub-group sessions December 9-13, 2019 in Phoenix, AZ and was hosted by Honeywell. The group recognized the outstanding support of two long time members who were retiring at the end of the year – Tom Evans, NASA and Mark Mutchler, Federal Aviation Administration (FAA).


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.

SC-206 enjoying Honeywell’s hospitality at Phoenix Learning Center

AIRBORNE WEATHER DETECTION

SC-230 met virtually January 21st – 23rd. Working Group (WG) 11, under the leadership of Shumpei Kameyama (Mitsubishi Electric Corporation) and Venkata Sishtla (Collins Aerospace), completed work on a Feasibility Study Airborne LIDAR for Clear Air Turbulence Detection for Final Review and Comment (FRAC). During the Plenary, SC-230 approved the release of the document for FRAC. The FRAC resolution is scheduled for the April Plenary and will be presented to the Program Management Committee (PMC) in June for approval and publication.


SC-230 enjoying Honeywell’s hospitality at Phoenix Learning Center
RTCA has teamed with MANNARINO Systems & Software Inc. to offer four new technical seminars expanding the suite of training programs 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.

Guidelines for Development of Civil Aircraft and Systems

MANNARINO uses their industry experience and technical expertise to provide training on the standard and recommended practices proposed by the SAE ARP4754A document. This course covers in detail, industry guidance for the development of aircraft and aircraft systems and how this guidance is deployed in industry in terms of practical application within a company’s engineering processes and demonstration of compliance to ARP4754A objectives. The training provides a detailed review of the guidelines for System Development Assurance, applicable to commercial aircrafts and systems. It provides detailed guidance on which processes are required to develop and verify aircraft and systems, as well how these processes are tailored to the different aircraft systems and Functional Design Assurance Levels (FDAL), and it provides recommendations on the level of validation and verification rigor to be applied for each aircraft and system function based on FDAL. It provides in-class workshops with examples of the application of the guidance material for system & safety aspects.

March 17-19, 2020

Management Seminar: DO-178B/C, DO-254 & SAE/ARP4754A

The training material provides a management-level overview of RTCA/DO-178B & C, RTCA/DO-254 & SAE/ARP4754A objectives and associated activities required as part of a certification program. It provides insight on the usual certification pitfalls, processes flaws, project cost, recommended practices and maintainability aspects of these programs. Created for aerospace industry management personnel, this seminar focuses on the most common challenges for development, verification and certification of safety critical equipment.

July 7

Guidance for Engineers: DO-178C DAL D Systems

This training provides a thorough review of the RTCA/DO-178C objectives necessary to achieve compliance for airborne software components assigned DAL D. This condensed version of DO-178C training will present what is needed for an organization to put together the minimum plans, processes and data required to demonstrate compliance to DAL D objectives. In-class workshops will consolidate the learning by providing practical examples of requirements capturing, hardware/software integration tests and problem reports.

July 8-9

Integrated Modular Avionics (IMA) Development Guidance and Certification Considerations

This course provides the fundamentals for developing and integrating IMA systems, using DO-297 and applicable Advisory Circular material. It presents the definition, tasks and role of each party in the context of component integration, from the platform level to the application, system and aircraft perspective. It presents the approval aspects of the platform in isolation and in conjunction with multiple software applications. It discusses the use of ARINC 653 in IMA systems and as well the system aspects of SAE ARP 4754A in IMA Systems.

September 29

*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
TERRAIN AWARENESS WARNING SYSTEM (TAWS)

SC-231, met for their 16th plenary in December at the University of Alaska Anchorage. As a part of the committee’s work to create recommendations to address NTSB findings A-17-035 and A-18-015, and they met with Alaskan Part 135 fixed wing operators who use the Class B/C TAWS in their aircraft.

The group will complete a white paper detailing the alternatives considered as part of their work and highlighting their proposed solutions. This work is expected to be submitted to the Program Management Committee (PMC) in June of 2020.

COUNTER UAS

On January 23, 2020 RTCA Special Committee (SC) 238, Counter UAS met for the first time in plenary session. The Committee was established by the Program Management Committee (PMC) on December 6, 2019. As UAS operations in airspace continue to grow and UAS technology continues to mature, full integration into the aviation ecosystem highlights the need for industry and government to work together to develop standards around Counter-UAS technology. This effort will be focused solely on developing a consensus standard that details detection and mitigation standards. This committee will operate as a joint committee with EUROCAE Working Group (WG) 115.
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

Next Class: April 27-29, 2020

Classes start at 8:00am 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-229, 406 MHz Emergency Locator Transmitters (ELTs)

**CO-CHAIRS**

Tom Pack, ACR Electronics

Philippe Plantin de Hugues, Bureau d’Enquetes et d’Analyses (BEA)

**NEXT MEETING**

April 28-20, 2020

Washington, DC

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**406 MHz EMERGENCY LOCATOR TRANSmitters (ELTs)**

SC-229 met jointly with EUROCAE Working Group (WG) 98 in December at EUROCAE in Saint Denis, France. The joint group addressed all comments received as change requests against ED-62B/DO-204B, Minimum Operating Performance Standard (MOPS) for Emergency Locator Transmitters (ELTs). All comments were resolved in consensus, and a Change 1 to ED-62B/DO-204B is currently in Final Review and Comment (FRAC). The change is expected to be presented to the Program Management Committee (PMC) in June 2020.
COMING
FALL 2020

HUMAN FACTORS TRAINING COURSE

RTCA, Inc.
1150 18th St., NW
Suite 910
Washington DC 20036
Phone: 202-833-9339
www.rtca.org
email: training@rtca.org

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COMING FALL 2020
RTCA WELCOMES NEW MEMBERS

Adsys Controls
Irvine, California USA

Adsys Controls provides solutions for precision control systems, advanced optical perception systems, high energy lasers, test system modeling & simulation, and unmanned aerial systems for military and commercial markets. Adsys Controls services include everything from electronics design, embedded RT software, and image processing to high energy laser & optical perception systems for ISR&T, weapons, communication, and navigation.

Archer Aviation
Santa Clara, California USA

Archer’s mission is to accelerate the benefits of sustainable air mobility. The company is currently developing an electric aircraft.

Cota Aviation
British Columbia, CANADA

Cota Aviation Ltd, is Approved Maintenance Organization #83-18. The company is fast closing in on their second certification of Parts Manufacturing.

Deftech Aviation
Melaka, MALAYSIA

Deftech Aviation is a premier defense company that sets the benchmark in the design, development, manufacturing and supply of armored and logistics vehicles for both military and homeland security. In the commercial sector, Deftech is a preferred supplier for specialized vehicles and commercial buses. The company is synonymous with the excellent land systems maintenance, repair & overhaul capabilities and extended its wings to make a foray into the domains of aerospace, unmanned systems and systems integration.

De Havilland Aircraft of Canada Limited
Toronto, Ontario CANADA

Throughout an impressive 75-year history of producing various models of aircraft in Canada and for the world, De Havilland has always proudly been known for its adaptability and dependability. Being responsible for creating some 3,500 aircraft—including the most advanced turboprop in the air today—their experience and expertise constructing the highest performing planes in the industry is second-to-none. Their aircraft are all manufactured in Canada at their state-of-the-art facility in Ontario and are a proud symbol of Canadian innovation and achievement.

The company’s Dash 8 series offers incredible versatility and value with its ability to handle steep approaches, accommodate more passengers and offer both a lower fuel burn and shorter runway requirement than competitors.

De Havilland provide world-class service to over 800 Dash 8 aircraft for over 60 airlines and customers around the globe, as well as support for their 100, 200 and 300 models.

EXB Solutions
Plymouth, Minnesota

EXB Solutions, Inc. provides safety critical software engineering solutions for the Aerospace and Defense, and Medical Technology industries.

Neuralvol Inc.
Montreal, Quebec CANADA

Neuralvol is committed to the development of safe and reliable technologies for enabling autonomous flight by leveraging advancements in artificial intelligence and electronic hardware.

PAL Aerospace
St John’s Newfoundland and Labrador, CANADA

PAL Aerospace is a Canadian-owned company. With a focus on Intelligence, Surveillance and Reconnaissance as well as In-Service Support solutions. PAL Aerospace is recognized by governments and militaries for on time/on budget delivery and high reliability rates.

Space Star Technology Co., Ltd.
Beijing, CHINA

Space Star Technology Co., LTD. is the overall unit of satellite application of China Aerospace Science and Technology Corporation, and the main support unit of China Aerospace Satellite Research Institute. Located in Beijing’s Zhongguancun area, it has more than 3,000 employees. It owns several subsidiaries including Aerospace Sky Painting, Aerospace Zhongwei, and Aerospace Pohuyun.

After more than 30 years of development, eight areas have been formed, taking the overall satellite application system as the core, with space applications, satellite remote sensing, satellite navigation, satellite communications, data links, cloud computing and information security, drone system integration, and data operation services. It supports the complete business architecture. Provide comprehensive information-based integrated solutions, system integration, equipment manufacturing, and operation services based on space-based resources for national defense, industry, and regions.

(continued on page 13)
The company has been awarded the title of civilized unit of the central state organ since 2003, obtained many scientific and technological achievements and honors, and obtained more than 60 scientific research achievements at the level and ministerial level. It will continue to take the goal of creating "the world’s first-class satellite application enterprise" and take the mission of promoting the development of China’s satellite applications and information industry as the overall unit of China’s satellite application technology and industrialization promotion, and the overall unit of regional and industry informatization construction.

**Tata Advanced Systems Limited**  
Bengaluru, Karnataka INDIA

Tata Advanced Systems Limited (TASL), a wholly owned subsidiary of Tata Sons, is the strategic Aerospace and Defence arm of the TATA Group. TASL is both an operating & a holding company. TASL group is fast emerging as a key Defence and Aerospace player in India with established capabilities and demonstrated deliveries in the following areas: Missile Systems and sub-systems, Radar Systems and sub-systems, Command & Control Systems, Aerospace & Aero-Structures, Unmanned Aerial Systems, Optronic Systems and Homeland Security Solution.

TASL has been established as the lead entity for the Tata Group to address the large aerospace and aerostructure opportunities for India as well as for the rest of the world. With 3 operational programs, proven deliveries, and more than 1400 highly trained resources, TASL is on its way towards becoming the global supplier of choice of global aerospace OEMs. The backbone of TASL’s vision is its capability across the value chain - design, engineering, detailed part manufacturing and major structural assembly. The programs are nurtured with the highest level of customer focus and safety, delivered through robust quality systems, procedures and practices certified to AS 9100, NADCAP standards. Following are the key Programs under execution where TASL has become global single source supplier to the OEMs: Sikorsky S 92 Helicopter Cabin Assembly including Wire Harness Installation, Lockheed Martin C 130 J Empennage & Center Wing Box Assembly, Detailed Part Manufacturing (Tata Sikorsky JV) with capabilities in Machining, Sheet metal forming, tube bending, special processes, quality assurance.

Unmanned Aerial Systems are a key ingredient of C4I systems offering the security forces with real-time ISR capabilities. In-house design and development of Mini & Micro UAV systems, complemented by indigenous design of major subsystems like Autopilot, Ground Control Station, Gimbal based payloads etc. has enabled TASL to offer cutting edge solutions for the current and future UAV requirements of the Indian Security Forces.

**UK Civil Aviation Authority (CAA)**  
Gatwick Airport, UNITED KINGDOM

The Civil Aviation Authority (CAA) is the statutory corporation which oversees and regulates all aspects of civil aviation in the United Kingdom. Its areas of responsibility include: Supervising the issuing of pilots' licenses, testing of equipment, calibrating of navaisds, and many other inspections (Civil Aviation Flying Unit), Managing the regulation of security standards, including vetting of all personnel in the aviation industry (Directorate of Aviation Security), Overseeing the national protection scheme for customers abroad in the event of a travel company failure (Air Travel Organizers' Licensing – ATOL).

In some aspects of aviation, it is the primary regulator; in other areas, where the responsibility for regulation has passed to the European Aviation Safety Agency (EASA), the CAA acts as EASA’s local office, implementing the regulations. Representatives from the CAA sit on EASA’s advisory bodies, taking part in the Europe-wide regulation process.

The CAA is a public corporation of the Department for Transport, liaising with the government via the Standards Group of the Cabinet Office.
AERONAUTICAL MOBILE-SATELLITE (R) SERVICE

SC-222, met jointly with Working Group (WG) 82, chaired by Armin Schlereth, DFS GmbH, at RTCA, Washington, DC in late January. They completed Final Review and Comment (FRAC) / Open Consultation (OC) resolution for DO-343C/ED-242B, Minimum Aviation System Performance Standard (MASPS) for AMS(R)S Data and Voice Communications Supporting Required Communications Performance (RCP) and Required Surveillance Performance (RSP) and DO-262E/ED-243B, Minimum Operational Performance Standards (MOPS) for Avionics Supporting Next Generation Satellite Systems (NGSS). Additionally, SC-222 completed DO-210D Change 5 FRAC resolution. All three documents are expecting March 2020 publication releases.

INTERNET PROTOCOL SUITE (IPS) AND AEROMACS

In December, SC-223 met jointly with EUROCAE Working Group (WG) 108 and the AEEC IPS Subcommittee in Brussels, Belgium and was hosted by EUROCONTROL. The group continued its work drafting a new document, Minimum Aviation System Performance Standard (MASPS) for the IPS used in Aviation A-G Communication System. During the plenary sessions, SC-223, WG-108 and the AEEC IPS Subcommittee coordinated the intended relationships among the RTCA/ EUROCAE and AEEC documents. In March, all three groups will meet with the ICAO Working Group I in Montreal, Canada to continue their work defining IPS in Aviation.
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?

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

NEW DOCUMENT

Security

DO-230J, Standards for Airport Security Access Control Systems

Issued 12-19-2019 | Prepared by SC-224

These guidelines and standards are not regulatory in nature but represent the industry’s derived consensus on standards and provisions to be met in achieving consistency and interoperability in an airport access control environment.

This updated document incorporates the latest technological advances with substantive changes in the biometrics, communications, credentialing, physical access control system, and video surveillance sections and minor changes throughout other sections of the document. Advances in Biometrics technology, Artificial Intelligence (AI), neural networks, and facial recognition have been included in the biometrics section including international plans and references. The physical access control section was updated to add suggested guidance on how to address the issue of general aviation (GA) pilots at commercial airports and the credentialing process for unescorted access.

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.
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, Formal Methods Supplement to DO-178C, Model-Based Development and Verification Supplement to DO-178C, and Object Oriented Technology and Related Techniques Supplement to DO-178C.

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.
DO-254, DESIGN ASSURANCE GUIDANCE FOR AIRBORNE ELECTRONIC HARDWARE, TRAINING COURSE

April 20-22, 2020
September 22-24, 2020
December 8-10, 2020

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

April 27-30, 2020 at RTCA
October 5-8, 2020 at WSU
December 14-17, 2020 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

February

February 13
SC-236, Standards for Wireless Avionics Intra-Communication System (WAIC) within 4200-4400 MHz
Hosted by AVSI at Texas A & M University
College Station, TX

February 18
SC-135
Hosted NIAR
Virtual & Wichita, KS

February 26
SC-227, Standards for Navigation Performance
Hosted by RTCA, Inc.
Virtual

March

March 2-6
SC-206, Aeronautical Information and Meteorological Data Link Services
Hosted by Honeywell International, Inc.
Prague, Czech Republic

March 9-12
SC-147, Traffic Alert & Collision Avoidance System
Phoenix, AZ

March 9-13
SC-223, Internet Protocol Suite (IPS) and AeroMACS
Hosted by IATA
Montreal, Canada

March 12
SC-238, Counter UAS
Hosted by EUROCAE
Madrid Spain

March 13
Hosted by RTCA, Inc.
Washington, DC

March 16-19
SC-216, Aeronautical Systems Security
Hosted by EASA
Brussels, Belgium

March 17-19
Guidelines for Development of Civil Aircraft and Systems Training
Hosted by RTCA, Inc.
Washington, DC

March 20
SC-186, Automatic Dependent Surveillance-Broadcast (ADS-B)
Phoenix, AZ

March 26
Program Management Committee (PMC)
Hosted by RTCA, Inc.
Washington, DC

March 31 – April 2
SC-237, Helicopter Terrain Awareness Warning System (HTAWS)
Hosted by RTCA, Inc.
Washington, DC

April

April 7-9
SC-230, Airborne Weather Detection System
Hosted by RTCA, Inc.
Washington, DC

April 16
SC-224, Airport Security Access Control Systems
Hosted by RTCA, Inc.
Washington, DC

April 20-22
DO-254 Training
Hosted by RTCA, Inc.
Washington, DC

April 20-24
SC-228, Minimum Performance Standards for Unmanned Aircraft Systems
Hosted by RTCA, Inc.
Washington, DC

April 22-23
Hosted by Honeywell International, Inc.
Prague, Czechia

April 27-29
DO-178C Training
Hosted by RTCA, Inc.
Washington, DC

April 28-30
SC-229, 406 MHz Emergency Locator Transmitters (ELTs)
TBD

April 30
Supplements to DO-178C Training
Hosted by RTCA, Inc.
Washington, DC

May

May 1
SC-186, Automatic Dependent Surveillance-Broadcast (ADS-B)
Hosted by RTCA, Inc.
Washington, DC

May 7
SC-236, Standards for Wireless Avionics Intra-Communications System (WAIC) within 4200-4400 MHz
Hosted by EASA
Cologne, Germany

May 12-14
Airworthiness Security Certification Course
Hosted by RTCA, Inc.
Washington, DC

May 12-14
SC-231, Terrain Awareness Warning System (TAWS)
Hosted by RTCA, Inc.
Washington, DC

May 26-28
SC-237, Helicopter Terrain Awareness Warning System (HTAWS)
Hosted by SAAB
Stockholm, Sweden