ARSAG INTERNATIONAL

Aerial Refueling Systems Advisory Group

NEWSLETTER August 2020

From the desk of the Chairman

ARSAG is adapting to the current environment by holding its September meeting of the ARSAG Workshop / Joint Standardization Board (JSB) for Aerial Refueling Systems as virtual, separate Working Group meetings beginning on 14 September and continuing through October.

While work on ARSAG aerial refueling guidance and recommendation documents goes on year-round, these virtual conferencing meetings will help to fine-tune these important documents and facilitate their completion. We take our hats off to all those who are making these meetings possible and plan to participate.

We regretted that it was necessary to cancel the ARSAG annual meeting scheduled to be held last April in Cleveland. At that meeting, awards for Exceptional Service to ARSAG and Exceptional Service to Aerial Refueling would have been presented.

Those awardees are recognized in this newsletter. They have provided extraordinary value to ARSAG and to the international aerial refueling community. They deserve our acknowledgement and appreciation. Award certificates have been mailed to them.

We hope to be able to resume our traditional meeting schedule next year. In the meantime, we are wishing you and your families good health and wellbeing.

JOHN B. SAMS, JR, LIEUTENANT GENERAL, USAF, RET
CHAIRMAN OF THE BOARD & CEO, ARSAG INTERNATIONAL

September 2020 ARSAG Workshop / JSB

The September Meeting of the ARSAG Workshops / Joint Standardization Board (JSB) for Aerial Refueling Systems customarily is held in Dayton, Ohio.

This year, virtual conferencing meetings will be convened by individual Working Groups.

1. **ARSAG September 2020 Workshop / JSB Remote Meetings:**
    a. **The first meetings may be held on 14 September**
    b. **Meetings may extend through the end of October**
    c. **Working Group meetings generally will be scheduled in series, not in parallel, to allow participants to join more than one meeting**
2. **Registration for the meeting will open on the ARSAG website www.arsaginc.com on Tuesday, 8 September.**
    a. **Registration in advance of the meeting date will be required**
    b. **Participants will register for specific Working Group meetings.**
    c. **No fee will be charged for these remote meetings**
    d. **ARSAG Workshops / JSB Meeting participation is limited to military/government and industry representatives of NATO nations plus Australia**
3. **The meeting schedule will be posted on the ARSAG website on 8 September.**
    a. **The schedule will include:**
        i. **Working Groups**
        ii. **Dates**
        iii. **Times**
        iv. **Documents to be worked**
    b. **Registrants will be notified of software and log-in procedures for the Working Group in which they have registered to participate.**
    c. **Software will be selected by Working Group Leads to accommodate needs/capabilities of participants as much as possible**
4. **ARSAG participants recognize and appreciate the efforts of Working Group Leads and Document Managers to continue ARSAG's valuable work on behalf of the international aerial refueling community during these challenging times.**

ARSAG AWARDS for 2020

Recognized for Exceptional Service to ARSAG

Colonel Edward J. Schierberl
USAF, AMC/CR

Colonel Edward Schierberl has been a particularly capable organizer and moderator of the US Military Status Reports for the ARSAG annual meeting for many years. He has participated in the Workshops / JSB meetings helping to shape aerial refueling guidance and recommendation documents. He recognized, early-on, the need for an ARSAG aerial refueling incident report document. His liaison role regarding all Reserve matters has been invaluable. ARSAG expresses its appreciation for his generous offerings of his time and expertise to ARSAG and the aerial refueling community.

Colonel Schierberl is currently serving as the Reserve Advisor to the Commander, Air Mobility Command, Scott AFB, Illinois. As the liaison between AMC and Air Force Reserve staffs, he is responsible for advising on policies, plans, and programs that impact reservist supporting airlift, air refueling, and aeromedical evacuation missions.

After joining the USAF in 2000, Col Schierberl attended pilot training at Vance AFB Ok with a follow-on assignment as a KC-135R/T pilot. In his first assignment as a tanker pilot, he flew over 180 sorties and 1000 hours in direct support of Operations ENDURING FREEDOM and IRAQI FREEDOM. He then became a KC-135 Formal Training Unit instructor and later an instructor at the USAF Weapons School. While teaching at the Weapons School, he was deployed as Chief of U.S. Tanker Employment supporting NATO for Operation UNIFIED PROTECTOR.

Following his experience deployed with NATO, then Maj Schierberl, joined ARSAG in 2012 and used his experience in OUP to assist ARSAG Working Group 5. With his experience and the teamwork of ARSAG, he was able to assist in setting the foundation for the interoperability and standardization that was missing in air refueling during OUP. In 2013 he became the Safety Panel Chair and in 2014 started to chair the U.S. Operations Panel during annual ARSAG meetings.

Gregory S. Twyford
The Boeing Company

Greg Twyford is recognized for his Exceptional Service to ARSAG. He has provided unmatched resolve, leadership and management to the ARSAG / JSB Working Group 4, Maintenance & Ground Support Equipment, over many years. His Group has worked tirelessly in developing and producing quality documents during the entire year, and not just at the ARSAG Workshop / JSB meetings. He was a driving force for the development and early completion of the ARSAG aerial refueling incident report document.

Greg Twyford is a service engineer with the Boeing Company's Legacy Tanker Fleet Support Organization in Oklahoma City, providing over thirty-nine years of professional experience in aircraft maintenance, logistics, management and leadership. As the KC-135 Service Engineering Team Lead, Greg focuses on Aging Aircraft, driven by Functional Systems Integrity Program (FSIP) & Mechanical Equipment and Systems Integrity Program (MECSIP) requirements. His key tasks include assessing health of aircraft systems, proposing and implementing solutions for identified safety issues or Reliability, Maintainability, and Availability (RM&A) opportunities, and continuous system monitoring. Greg also brings with him a wide range of leadership experience and enjoys sharing those attributes with his team whenever opportunities arise. Previous to joining Boeing in 2008, Greg served in the U.S. Air Force for twenty-seven years, where he held key aircraft maintenance leadership positions with B-1, E-3, MC- and C-130 organizations, as well as in the Air Mobility Command's En Route Transportation and Maintenance system. He holds a Bachelor of Science degree in Professional Aeronautics from Embry-Riddle Aeronautical University and an Associate of Applied Science degree in Aviation Maintenance Management from the Community College of the Air Force. Greg is married, has three children, six grandchildren, and enjoys playing golf in his spare time.

Recognized for Exceptional Service to ARSAG

Bruno Martinez Vasquez

Airbus Defence and Space

Bruno Martinez is recognized for his leadership in ARSAG's Workshops / Joint Standardization Board (JSB) for Aerial Refueling Systems. In addition to contributing his considerable aerial refueling knowledge and experience in ARSAG Working Groups, particularly for the boom / receptacle requirements document, Bruno served as Lead for the Document Review Team (DRT) from 2015 until 2020.

Completed ARSAG guidance and recommendation documents are submitted to the DRT for review of technical accuracy, clarity, completeness, accepted standards compliance, and adherence to ARSAG's document style requirements. As DRT Lead, Bruno's responsibility included reviewing the documents, obtaining the inputs of all members of the DRT and coordinating those comments in a report to the documents' Working Group Leads and Document Managers.

Bruno received a degree in industrial engineering from the Universidad Politécnica de Valencia. After nine years of experience working in design of vibration test equipment, he joined Airbus Defence and Space in 2006, where he has participated from the earliest stages of development in the design of the Airbus Air Refueling Boom System (ARBS), in particular the design and integration of its different electromechanical systems.

As an aerial refueling systems engineer, Bruno has been involved in the refueling systems development, integration and certification for the different MRTTs platforms. He has presented seven patent applications with improvements for both boom/receptacle and hose/drogue refueling systems.

Bruno's outstanding career at Airbus has been a credit to him and to his organization. He has applied his expertise and the lessons learned in his work at Airbus and his broad area of communication with members of the European and worldwide aerial refueling community to benefit his fellow participants at ARSAG.

Bruno has set a high standard as Document Review Team Lead. He has been a major contributor the success of ARSAG and to the international aerial refueling community.

Recognized for Exceptional Service to Aerial Refueling

Richard J. Simms

USTRANSCOM

Richard Simms demonstrated exceptional efforts bringing about improvements to aerial refueling operational procedures and practices through his leadership and actions with the ARSAG Joint Standardization Board and through his primary role at US Transportation Command.

He has provided oversight and leadership to one of the most robust ARSAG Working Groups, coordinating updates, revisions and group actions of ARSAG aerial refueling clearance process and data acquisition documents or key aerial refueling issues letters. His coordination and management have supported the dramatic growth in global interest of the aerial refueling clearance processes and technical compatibility issues.

As the US Transportation Command validator, Mr. Simms enabled more than 2,300 top priority missions to be executed supporting 1,600 receiver aircraft. In addition, his support of the first-ever US aerial refueling support through the ATARES agreement helped demonstrate a new method for European AOR allies to gain access to US aerial refueling tanker support.

Finally, Richard orchestrated the US aerial refueling quinquennial review examining 138 technical clearances with 38 nations. This review effort demonstrates an ARSAG recommendation in action with positive impact around the globe.

Richard Simms continues to demonstrate strong leadership to continue the improvement to aerial refueling procedures and practices.

Recognized for Exceptional Service to Aerial Refueling

EXTENDER (XTNDR) 62 CREW

ARSAG recognizes the crew of EXTENDER (XTNDR) 62 for their Exceptional Service to the Aerial Refueling Community within the past year.

The crew of XTNDR 62 managed, planned and executed the first Pacific tanker symposium with the Republic of Korea and Australia at OSAN Air Base in South Korea.

The symposium's purpose was that of improving aerial refueling interoperability between tanker and receiver platforms, enhancing techniques and procedures, and creating efficient opportunities to conduct partner nation aerial refueling training within the Pacific theater. The symposium laid the groundwork for future annual meetings where Pacific allies can expand and strengthen partnership, develop a unified approach through shared knowledge and experience while building a united tanker force in the region.

ARSAG recognizes and appreciates the value of this innovative symposium and commends the crew of XTNDR 62 for their leadership:

- Captain Jason Lim
- Captain Andrew Veerathanongdech
- Captain Joseph Rush
- Captain John Goudelock
- Captain Steven Jocob
- 1st Lieutenant Adam Smith
- Master Sergeant Christian Villanueva
- Technical Sergeant Nathan Harris
- Staff Sergeant Cornelius Frazier
- Staff Sergeant Marco Ayala
- Airmen First Class Dawson Mustain
- Airmen First Class Kamron Cuff

Since the mission of the Pacific Tanker Symposium is perfectly aligned with ARSAG's mission of aerial refueling interoperability with our allies, we would be pleased to welcome members of XTNDR 62 and other future Pacific Tanker Symposium participants from allied nations to ARSAG's annual meetings held each April.

From aerial refueling history archives

KC-46: New Horizons

Unequivocally, 2020 has been a challenging year -- for our world, our communities, our families and each and every individual. While we can't single-handedly mend this fractured state of affairs, we can prioritize the positive steps toward making things better. At Boeing, that means keeping focused on a future filled with promise for our customers and the communities we serve.

As our team works toward that promising future, we on the KC-46 program are invigorated by the tangible milestones celebrated with our partners along the way.

Photo courtesy USAF

Last month, the Boeing team cheered when McConnell Air Force Base completed the first KC-46 aeromedical evacuation mission. This milestone provides operational proof of the Pegasus' versatility as a multi-role tanker built to carry passengers, cargo and of course, patients.

Members of the 931st Air Refueling Squadron and 22nd Aircraft Maintenance Squadron successfully transported five patients and two attendees from Joint Base Andrews, Maryland to Naval Station Norfolk, Virginia; Patrick AFB, Florida; and Travis AFB, California. The mission – completed over the course of six flights and 17 hours – was evaluated by the Air Force Testing and Evaluation Center.

While the tanker can transport many more patients, this mission was specifically looking to determine whether the aircraft could sustain patient care over a 14-hour span -- and the results were rock-solid. The tanker is, as it was designed to be, ideal for patient care, thanks to interior features like increased lighting visibility, onboard emergency oxygen and electrical power/storage capacity, to name a few.

Soon after that aeromedical milestone, the KC-46 took another leap forward in a different way. The first tanker destined for the Japan Air Self-Defense Force (JASDF) rolled out of the Boeing paint shop, marking a major stride for the program's first international customer.

"This a very exciting moment for the JASDF, the U.S. Air Force and Boeing," said Jeff Hinman, Japan KC-46 program manager. "It provides the JASDF with the most advanced aerial refueling aircraft available."

The newly-painted Japan tanker will now move on to complete its military equipment installation, -- including the aerial refueling boom -- prior to certification testing, which is scheduled to begin in late 2020.

Concurrently, our engineers are driven toward bringing the tanker into full, unrestricted operation. Boeing, in close coordination with the USAF, has jointly developed a technology enhancement plan for the Remote Vision System (RVS) for aerial refueling. In July, the first round of flight testing was completed on the initial enhancements to the KC-46 Remote Vision System, RVS 1.5. We anticipate additional testing and data collection in the coming months as we work toward a final design.

The enhancements include upgrades to the current cameras, as well as a new sensor providing true distance between the tip of the boom and the receiver aircraft. Boeing's development of these interim enhancements aims to improve operational capability now while simultaneously developing a full refresh of RVS technology.

So while the challenges of 2020 churn around us, Boeing stays focused on our commitments. We know the work we do today ensures we'll meet the needs of the warfighter now, and well after 2020 is etched into the pages of history.

Submitted by Matthew (Monty) Fritz, The Boeing Company

The Airbus C295 airlifter becomes a Tactical Tanker

Seville, 16 January 2020 – The well-known Airbus C295 tactical airlifter has successfully achieved its first wet contacts during an air-to-air refuelling (AAR) flight test campaign.

The test, conducted at the beginning of the year over South of Spain, was performed between an Airbus C295 standard aircraft equipped with the removable AAR kit and a Spanish Air Force C295 acting as a receiver at flight speeds between 100 to 130 knots. In total, the C295 performed five wet contacts transferring a total 1.5 tons of fuel in day-light conditions.

These were the first wet contacts between Airbus C295 standard aircraft equipped with the AAR kit and a Spanish Air Force C295.

The flight test campaign also included night operations and proximity wake assessment tests in pre-contact position with a Spanish Air Force F18 fighter at a speed of 210 knots.

The Airbus C295 standard aircraft equipped with the AAR kit and a Spanish Air Force F18 performing a wake assessment.

These flight tests are the continuation of the dry contacts performed in 2016 between a C295 and a H225M Caracal helicopter.

"The roll-on/roll-off AAR kit is electrically powered and has been designed to contain itself all the systems required to perform aerial refuelling operations. Thanks to this plug & fly innovative design, any of the 160 in service C295 transport aircraft can be easily converted into a tactical tanker able to refuel rotatory and fixed wing aircraft. I would like to express my gratitude to the Spanish Air Force for supporting us during this pioneering journey," said Martín Espinosa, Airbus Engineering responsible for this cutting-edge development.

This is a major step for Airbus and for the entire refuelling community since this represents a new concept that can transform a transport aircraft into a tanker in just a few hours, becoming a true force multiplier for today´s Armed Forces.

Airbus has already received interest from different C295 operators interested in expanding their helicopter´s mission range during SAR operations or in developing internal tanking capability for fighter pilot training at a reduced cost.

Submitted by: Luis Díaz-Miguel, Airbus Defence and Space

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