

**ARSAG INTERNATIONAL
AERIAL REFUELING SYSTEMS ADVISORY GROUP**



An Operating Guide

for

ARSAG

Panel Chairs

and

Steering Group

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ARSAG International

Panel Chairs and Steering Group

Guidance Manual

1.0 Purpose: The purpose of this Panel Chairs (PC) and Steering Group (SG) Guidance Document is to provide direction and mutual understanding regarding the responsibilities of Panel Chairs and Steering Group members. New and potential Panel Chairs and Steering Group members often inquire regarding the tasks, functions and responsibilities of those positions. This document is designed to assist PC and SG members as they offer their time and expertise to ARSAG for the benefit of the international aerial refueling community in accordance with ARSAG's Charter. (See attachment #1.)

2.0 Panel Chairs:

The ARSAG Panels are fundamental to ARSAG's annual conference. Each of the Panels represents a technical and/or operational aerial refueling discipline. (See Panel Charters, attachment #2.) In each Panel one of the Chairs generally assumes the leadership role and responsibilities as confirmed by the Executive Director. His/her name is listed first under each Panel in the Panel roster. In some cases the leadership role is shared, as in the Training Panel. In that case, each of the co-leads assumes responsibility in the area of his expertise i.e. rotary wing vs. fixed wing and shares the conference panel session time allotment between the two disciplines.

Panel chair appointments are effected through individuals offering their services to the ARSAG Executive Director to serve in that capacity. Appointments are coordinated with the Panel leadership. Qualifications include: a) background and expertise in the Panel's area; b) current industry or military position; and c) needs of the Panel.

- A. Panel Chairs participate in:
 - 1. Planning Meeting at ARSAG Winter Meeting (usually mid-January)
 - 2. ARSAG's annual conference, usually held in March, April or early May
 - 3. Briefers Meeting on Monday of conference week (conference general session begins on Tuesday morning)
- B. Panels are grouped in the conference agenda as follows:
 - 1. **Operational Session**
 - a. Operations Panel
 - b. Training Panel
 - c. Interoperability Panel
 - 2. **Research and Development Session**
 - a. Advanced Concepts Panel
 - b. Studies and Analysis Panel
 - c. Industry Panel

3. **Technical Session**

- a. System Design Panel
- b. Test and Evaluation Panel
- c. Reliability and Maintainability Panel
- d. Lighting and Markings Panel (Formation Aids)

4. The **Safety Panel Session** is scheduled on the afternoon of the conference opening day. Panel leadership is shared between the US Air Force and US Navy Safety Centers.

C. Panel Chairs and Co-Chairs

- 1. Employed by aerial refueling industry and military organizations. (see attached Panel Chairs roster, Attachment # 3.)
- 2. Experts in their Panel's aerial refueling discipline.
- 3. Leadership
 - a. all Co-Chairs are active in the Panel's endeavors
 - b. one or two individuals take on the leadership roles for the Panel
 - c. Panel activities coordinated with all Co-Chairs

D. Lead Panel Chairs and Co-Chairs Responsibilities Prior to Planning Meeting

- 1. Lead Panel Chairs
 - a. soliciting briefers qualified to speak on timely topics
 - b. developing a draft agenda for their Panel's portion of the annual conference
 - c. suggest a co-chair to take on the leadership role in the event of the lead chair's absence
- 2. Co-Chairs
 - a. coordinate with and assist lead chair in identifying briefings and briefers
 - b. be prepared to assume leadership of the Panel should events warrant at any time during the planning phase or during the conference
- 3. ARSAG's global participation should be represented in panels and briefings
 - a. panels and briefings should reflect an inter-service and international balance.
 - b. agenda must avoid favoritism to any service, company or country.
 - c. Panel Chairs and Co-Chairs are responsible for working to create a balanced agenda.
 - 1. Each Panel's Co-Chairs represent a variety of organizations and nations to aid in achieving equal representation and a balanced agenda
 - 2. In cases when equal representation is difficult to achieve in a particular panel, equity may be achieved across Panel sessions.
 - 3. The Focus Groups can be used, as well, to create a voice for all of ARSAG's many organizations and nations.
 - d. The Executive Director will assist the Panel Chairs in achieving balance; he has the responsibility of assuring equity and avoiding even the appearance of favoritism.

E. Planning Meeting

1. Purpose

- a. meet with Co-Chairs
- b. coordinate and finalize the agenda for the annual conference

2. When

- a. ARSAG Winter Meeting, usually in January
- b. one full day
- c. The Winter Meeting also includes a separate two-day ARSAG Workshop / Joint Standardization Board meeting

3. Attendees

- a. Panel Chairs
- b. Steering Group

4. Panel Chairs Responsibilities at Planning Meeting

- a. presenting draft agenda including
 1. briefing titles
 2. briefers' names, organizations and contact information
 3. a synopsis of each briefing
 4. briefing time requirements
 5. suggested alternative Panels for briefing in the case of time constraints
 6. special requirements for any briefing
 7. confirming that all briefings have been cleared by the presenter's organization for presentation in the public domain and are free of proprietary notes, confidential information. ARSAG is an open, international forum.
 8. allow five to ten minutes at the end of each individual panel session for questions and answers.
 9. when receiving a request for briefing time exceeding 15 minutes
 - a. suggest a break-out meeting to address the briefing topic in greater detail
 - b. suggest inclusion, when appropriate, in one of the Focus Topic Sessions
- b. Meet as individual Panels to discuss and adjust agendas for their own sessions (all Co-Chairs participating)
- c. Coordinate with all other Panels
 1. avoid duplication
 2. identify timely topics that are not being presented
 3. identify military/ industry organizations that are under-represented
 4. adjust time allotments and arrange for panel time sharing when necessary

- d. Cooperate with Executive Director in executing a final draft agenda
 - 1. developing an integrated progression of Panel Sessions as required by that year's conference schedule
 - 2. modifying Panel Session times as needed
 - 3. adjusting Panel Session schedules within the conference week when special requirements warrant (availability of speakers)
 - 4. resolving conflicting priorities that may require moving a briefing to a different Panel in order to ease time constraints, etc.
- F. Pre-Conference Responsibilities of lead Panel Chairs
 - 1. interfacing with the ARSAG Executive Director
 - a. confirming final Panel Session agenda four weeks prior to conference
 - b. making adjustments to Panel Session as needed
 - 1. changes in briefing titles
 - 2. substitution of briefers
 - 2. maintaining communication with briefers
 - 3. confirming availability during the conference or suggesting substitute, if required
- G. Conference Week Responsibilities of Panel Chair Leads
 - 1. Participate in briefers meeting (held on the Monday before the General Session opening day, Tuesday)
 - a. confirm presence of all his/her panel's briefers, making adjustments if last-minute emergencies warrant
 - b. confirm submission of electronic copies of briefings
 - 2. Moderate his/her panel
 - a. assemble briefers on the stage for individual panel session
 - 1. briefers will sit at table on stage during individual panel session
 - 2. special attention should be paid at the beginning of each new portion of the agenda, at the beginning of the day, following breaks, after lunch, to have briefers assembled on the stage in advance of designated time so that the audience does not have to wait for the briefers to take their places
 - b. introduce briefers
 - c. conduct question and answer session
 - d. take responsibility for adhering to the conference schedule
 - 1. avoid overruns
 - 2. begin on time

- e. assemble panel co-chairs and briefers at designated panel table (marked) on the conference floor
 1. request sitting at the table at least during the day of the panel's session
 2. facilitates assembling briefers
 3. allows audience members to find briefers and panel chairs for further questions, discussions
3. Compile minutes of his/her Panel Session for prompt submission to Executive Director (not later than two weeks after conference).
 - a. include changes of briefers, names, titles, etc.
 - b. include questions and answers
 - c. other observations and suggestions for future meetings

3.0 Steering Group Members

Steering Group Members represent military organizations involved in aerial refueling. Steering Group appointments are effected through individuals offering their services to the ARSAG Executive Director to serve in that capacity. One Steering Group Member (and an alternate when specifically requested) represents each of the nations participating in ARSAG and each of the primary US military service organizations. The Steering Group Charter, Attachment #4, and the Steering Group roster, Attachment #5, are attached. Responsibilities of Steering Group Members as outlined in the ARSAG Steering Group Charter (attached) includes:

- A. Providing military guidance regarding aerial refueling matters.
- B. Attendance at and participation in:
 - 1. The Planning Meeting during the ARSAG Winter Meeting (*The Planning Meeting is one full day. Planning Meeting attendees include Panel Chairs and the Steering Group. The Winter Meeting also includes two-day ARSAG Workshop / Joint Standardization Board meeting*)
 - 2. A Steering Group Meeting on the Monday of the conference week
 - 3. Briefers meeting on Monday afternoon of the conference week
 - 4. The ARSAG annual conference.
- C. Providing for the presentation of a Military Status Report on the opening day of the annual conference.
 - 1. The Steering Group Member or his/her representative may present the report.
 - 2. The report may include
 - a. new / additional tanker or receiver procurements including aircraft capabilities
 - b. type of aerial refueling methods (boom receptacle and/or probe drogue) employed and associated systems
 - c. interoperability issues and activities
 - d. update to personnel and points of contact for both operational and technical matters (standardized technical data survey (STDS))
 - e. significant training and operational events
 - f. safety related matters
 - g. maintenance concerns involving interoperability and aerial refueling compatibility
 - h. all material must be cleared for presentation in the public domain (ARSAG is an open international forum)
 - 3. Up to ten minutes will be allotted for each status report. However, any organization experiencing a significant number of aerial refueling activities and events in a given year may request additional time.

4.0 Additional considerations for Panel Chair leads and Steering Group members

1. Conflict of interest. A Panel Chair or Steering Group Member who becomes involved directly in a source selection may wish to temporarily withdraw from his/her responsibilities to avoid any real or perceived conflict of interest. In this event arrangements for a temporary replacement should be made.
2. Multiple ARSAG responsibilities When practical an ARSAG participant may find it best to concentrate his/her time and energy on only one leadership role e.g. Panel Chair, Steering Group Member, Focus Topic Group lead, etc. This will provide opportunities for others.
3. Assist Executive Director Assist as requested in developing and coordinating overall conference agenda including guest speakers, special sessions, Focus Topic Sessions, military status reports

Attachments

- # 1 ARSAG Charter
- # 2 Panel Charters
- # 3 Panel Chairs, Co-Chairs Roster
- # 4 Steering Group Charter
- # 5 Steering Group Roster



ARSAG CHARTER

Scope:

The Aerial Refueling Systems Advisory Group (ARSAG) is formed to provide a single inter-service and international agency to advise on aerial refueling system matters. It will serve as a coordinating/advisory body for the resolution of existing deficiencies in tanker and receiver aerial refueling systems and for the development and implementation of improvements to these systems. All efforts of this group are to assist engineering, development, testing, support and operating agencies. The group will not usurp the authority of any of these agencies, organizations or countries.

Authority:

Approval of this charter will be the authority for the formation and operation of the Aerial Refueling Systems Advisory Group.

Objective:

To influence achievement of the most favorable balance of performance and cost in aerial refueling systems, resulting in the highest degree of compatibility, capability and interoperability to the total tanker/receiver fleets.

ARSAG PANEL CHARTERS

SYSTEM DESIGN PANEL

- Will focus on providing recommendations for changes to existing documents and suggested design criteria for any newly developed specification or standard;
- Will serve as coordinator of all system design and test issues that are generated within the ARSAG agenda, panels and/or main group meetings; and
- Suggest action items and advisories to the steering group to convey to appropriate government, military and/or industrial organizations.

TEST & EVALUATION PANEL

Objective

To provide a forum for open discussion of issues relating to test and evaluation of aerial refueling systems

Scope

- Make recommendations for standardization, ground and flight test instrumentation and procedures;
- Provide technical assistance in resolving problems identified by the other panels;
- Encourage the use of computers and simulation to improve confidence in the operating characteristics of existing and new systems and to help reduce the cost of testing;
- Conduct research into new and innovative methods for the test of aerial refueling systems;
- Interface with fleet users to ensure tests are mission relatable;
- Suggest action items and advisories to the steering group to convey to appropriate government, military and/or industrial organizations; and
- Foster open exchange of information between panels to ensure test and evaluation methodologies are in concert with the users' and procurement agencies' needs.

ADVANCED CONCEPTS / TECHNOLOGY PANEL

- Investigate and identify the technical requirements of existing and future aerial refueling missions in terms of current technologies to determine technology gaps;
- Establish focus for required new technology developments;
- Provide technical assistance in resolving problems identified by other panels;
- Make recommendations for new technology thrusts and future funding to support the identified technical needs; and
- Suggest action items and advisories to the steering group to convey to appropriate government, military and/or industrial organizations.

SAFETY PANEL

- Analyze the aerial refueling mishap experience across the services and nations to identify and propose solutions; and
- Address concerns from the aerial refueling community on potential safety problems and propose solutions.

ARSAG PANEL CHARTERS

INDUSTRY PANEL

- To identify methods by which the aerospace industry can effectively participate in the achievement of ARSAG's goals. Within the ARSAG framework, an aerospace industry body can act as both a voice and a receptor;
- Enhanced cooperation and communication between the ARSAG organization as a whole and its industry members can result in efficient, cost effective fulfillment of aerial refueling user's needs. Avenues may be discovered for research and development efforts engaged jointly between the aerospace industry and defense organizations. This meeting will provide a forum for open discussions of possibilities and goals in advanced aerial refueling technology; and
- All suggestions and recommendations will be provided to the steering group by the appointed representative for any given meeting.

TRAINING PANEL

- Provide a forum for the free exchange of ideas related to aerial refueling training;
- Communicate the need for adequate intra-service, joint and combined forces training to insure safe aerial refueling operations;
- The aim is to promote the most effective use of assets and technology to improve the quality of aerial refueling training; and
- Suggest action items and advisories to the steering group/executive committee of ARSAG to convey to appropriate government, military and/or industrial organizations.

RELIABILITY & MAINTAINABILITY PANEL

- Monitor aerial refueling (AR) logistics studies and requirements
- Report and investigate pertinent aerial AR reliability and maintainability (R & M) issues;
- Interface with industry on R & M issues;
- Identify future U.S. and international AR R & M requirements;
- Analyze logistic data for high failure AR items;
- Review safety mishap reports for R & M impacts; and
- Suggest action items and advisories to the steering group to convey to appropriate government, military and/or industrial organizations.

INTEROPERABILITY & PROCEDURES DOCUMENTATION PANEL

- Develop standard technical and operational clearance procedures for both tanker and receive aircraft to permit aerial refueling between services and countries;
- Establish and review common aerial refueling procedures (ATP-56) among allied tanker and receiver forces;
- Monitor distribution of ATP-56 to all signatures, down to user level;
- Communicate the status of new national aerial refueling tanker program initiatives;
- Review "lessons learned" from joint and combined allied forces exercise operations, safety mishap reports;
- Formulate minutes which include conclusions, recommendations and actions to panel members, distribute to ARSAG steering committee for inclusion in overall ARSAG minutes; and
- Suggest action items and advisories to the steering group to convey to appropriate governmental, military and/or industry organizations.

ARSAG PANEL CHARTERS

OPERATIONS PANEL

- Provide a forum to discuss, analyze and recommend improved employment options among joint and combined tanker and receiver aircraft forces;
- Review “Lessons Learned” from joint / combined forces exercises, operations and safety mishap reports to assess the effectiveness of current equipment / tactics. Highlight areas where more effective equipment / tactics need to be developed;
- Identify and promote joint interoperability requirements and opportunities that will increase tanker /receiver worldwide combat capability; and
- Suggest action items and advisories to the steering group to convey to appropriate government, military and / or industrial organizations.

STUDIES & ANALYSIS PANEL

Provides a forum to:

- Monitor aerial refueling (AR) studies;
- Report pertinent AR studies;
- Evaluate tanker configuration and AR concepts;
- Investigate AR operational and technical problems;
- Identify future U.S. and international AR requirement;
- Assist other ARSAG panels with reports and studies pertinent to their panels; and
- Suggest action items and advisories to the steering group to convey to appropriate government, military and/or industrial organizations.

LIGHTING & MARKINGS PANEL

- Provide a forum to discuss issues relating to tanker and receiver exterior lighting and markings:
 - ✦ Exterior Lighting Systems (e.g. formation, flood, pilot director, signaling, night vision system, covert, etc.)
 - ✦ Hose/Drogue System lighting and markings - centerline, wing pods, boom-drogue adaptor (BDA)
 - ✦ Boom/Receptacle System lighting, markings, coatings, and paint
- Make recommendations for standardization of lighting, marking and signaling for rendezvous and air refueling.
- Suggest action items and advisories to the steering group to convey to appropriate government, military, and/or industrial organizations.
- Review and comment on Dept of Defense and Ministry of Defense reports/studies regarding aerial refueling lighting and markings
- Provide briefings regarding lighting/markings/night vision systems at annual ARSAG conferences
- Arrange and/or participate in ARSAG special project meetings regarding lighting/markings topics.



ARSAG PANEL CHAIRS

Attachment #3

Operations

Col Ken Lewis, USAFR
Maj Christopher L. Clarke, Canadian Forces
Lt Col Peter Rabinowitch, Air National Guard
Sqn Ldr Delia Chadwick, UK RAF
Steve Wayne, Northrop Grumman
Lt Col Christy Kayser-Cook, TACC AR Div Chief
John Dougherty, Northrop Grumman
Lt Col Lionel Poirot, FAF, MCCE

System Design

Thomas Cavallaro, NAVAIR
Mark Burket, ASC/ENFA
Nathan Fulks, US Army
David Hilker, 668 AESS
Mark Shelly, Boeing
Harry Slusher, Boeing
Steve McLaughlin, NAVAIR
Su Yin, Parker-Hannifin
Jim Reinholdt, Eaton
Chris Mouskis, Cobham Mission Systems
Javier Yague Lopez, EADS CASA
Andy Tilley, Icon Polymer
Carey Nall, Northrop Grumman

Interoperability Procedures & Documentation

Wg Cdr Adrian Hayward, NATO, JAPCC
Maj William Clements, NATO, JAPCC
Wg Cdr Martin Walsh, AMC A-3/DA3V
Maj James Pena, HQ AMC/A3VK
Lt Col Michael Zuber, USTRANSCOM J3
MSgt Todd McPeak, AMC AMC/A3VK
Tom Swiderek, Omega Air
Ltc Genaro De Meo, ITAF
Mark Burket, ASC/EN
Maj Eugene Mamajek, USN/USMC
Lt Col Lionel Poirot, FAF, MCCE
Jennifer Ingmire, NAVAIR
MSgt Wayne Keiser, USTRANSCOM J3
Geoff Winterbottom, Air Tanker
Erich Novak, CASS
Mike Manlove, Northrop Grumman
Maj Christopher Clarke, Canadian Forces

Reliability & Maintainability

Maj Chris Lietch, AFMC 550 ACSS/DO
Wes Durant, USAF/OC-ALC
Guillermo Barba, Cobham Mission Equipment
Cary Depew, Lockheed Martin
MSgt Marcus Trump, German Air Force
Ken Eaton, Cobham
Lt Matthew Sipe, USAF
Mike Bandak, Northstar
Luis Fernandez Paniagua, EADS
Ed London, Northrop Grumman
Orlando Chiarello, Secondo Mona

Studies and Analysis

Allan Haenisch, Alion/SAF/AQ
Andrew Bennett, Lockheed Martin
Michael Kennedy, RAND
Bob Ford, Boeing
David Ferro, EADS NA Defense
Bill Carolan, Boeing
Jon Haun, Northrop Grumman
Thomas Stavropoulos, Northrop Grumman

Test & Evaluation

Robert Tipton, Lockheed Martin
Thomas Pitsor, USAF Flight Test Center
Abby Bennett, 668 AESS
Fred Banks, US Army
Maj Cristiano Realacci, Italian AF
Steve Stowe, Boeing
Mike Manlove, Test and Evaluation
Frank Finkelstein, Northrop Grumman
Tony Bowie, NAVAIR
Patrick J. Statham, Eaton

Lighting & Markings

Maj Angel Canales, NATO
Gordon Parry, DESFSTA 1PT
Julian Chang, Boeing
David Seaton, UK MOD, FSTA
Stephanie Mousseau, NAVAIR
Kym Moore, Honeywell
Jeno Peterdi, Northrop Grumman
Lt Col Guido Mueller, German Flight Test Ctr.
Klaus-Dietrich Flade, Airbus
Rick Kahler, Boeing
Christopher Schwab, Eaton

Advanced Concepts

Farhad Choudhury, NAVAIR
Jacob Hinchman, AFRL/RBCC
Steve Stecko, Boeing
Mat Tremmel, Northrop Grumman
Michael Larsen, ASC/ENFA
Rick Kahler, Boeing
Gardiner Porter, Jeppesen
Ken Klar, Cobham Mission Equipment
Terry Schmuck, Boeing
Bryan Edmondson, Cobham Mission Systems

Industry

Wally Averill, Lockheed Martin
Tom Conard, Boeing
Kenneth Eaton, Cobham Mission Equipment
Earl Godby, Boeing
Steve Klimek, Northrop Grumman
Chris Pomfret, Cobham Mission Equipment
Pablo Quesada, Airbus Military
Tom Swiderek, Omega Air
Martin Vukich, Eaton

Training

Col Stuart J. Shaw, 97 AMW/CV
Russ Hunter, CSC
Lt Col Richard Cordell
Capt Scott Russell, 97 AMW, KC-135 Training
Jacob Bencoter, CASS
Ray Droll, Northrop Grumman
Norm Gibson, OC-ALC

Safety

Lt Cody Hitchcock, US Navy Safety Center
Major Damon Dykes, USAF Safety Center
Lt Col Kevin Rainey, USAF AMC Flight Safety
Capt Timothy Mach, 97 AMW/SEF
Ed London, Northrop Grumman
James Bray, Boeing



ARSAG STEERING GROUP CHARTER

- 📌 **Provide Status Reports at ARSAG annual conferences regarding:**
 - Aerial refueling activities
 - Types of receiver and tanker aircraft
 - Aerial refueling capabilities
- 📌 **Provide inputs to the ARSAG Executive Director regarding:**
 - Discussion topics for conference focus groups
 - General assembly presentations
- 📌 **Provide guidance and advice to the ARSAG Board of Directors via the Executive Director**
 - Guest speaker selection
 - Theme guidance
 - Award nominees and departing members identification
- 📌 **Assist in review and coordination of ARSAG and Joint Standardization Board (JSB) aerial refueling documents, standards and recommendations**
 - Identify technical and operational points of contact for the aerial refueling clearance process



ARSAG STEERING GROUP

Australia	Gp Capt Noel Derwort
Brazil	Col Paulo João Cury
	Lt Col Luiz Amadeo Iozzi da Silva
Canada	Major Christopher Clarke
France	LTC Arnaud Beurivé
Germany	Capt Wolf Kuhbier
	Stephanie Hoffmeister
Israel	Captain Zvika Bar-Niev
	Major Ohad Meiri
Italy	Lt Col Giuseppe D'Amico
Kingdom of Saudi Arabia	Col Mohammed Albogami
Singapore	LTC Edward Pang
Spain	Maj Carlos E. Domenech Salvador
Sweden	Capt Andre Brannstrom
The Netherlands	Maj Nicholas Van Duren
Turkey	Capt Sinan Oztek
United Kingdom	Sqn Ldr Delia Chadwick
USAF HQ AMC/A5QT	Lt Col Christopher Barker
US Army	Nathan Fulks
US Marine Corps	Maj Eugene Mamajek
US Naval Safety Center	Lt Col Cody Hitchcock
US Navy, OPNAV	Cdr Richard Dorn
AF/A5RM	Maj Brian Smith
USAF/AQQM	Lt Col Brian Jonasen
US Air Force Safety Center	Major Damon Dykes
NAVAIR	Doreen Behmke
	Thomas Cavallaro
US Air Force Reserves	Col Kenneth Lewis
HQ Air National Guard	Lt Col Peter Rabinowitch
USAF ASC/EN	Mark Burket
NATO	Wg Cdr Adrian Hayward
	Maj William Clements
	Maj Angel Canales
AMC A3	Wg Cdr Martin Walsh
	Maj James Pena
HQ AFSOC/A5RM	Lt Col Michael Millward
AFMC 550 ACSS/GFTR	Gary Mott
USTRANSCOM J3	Lt Col Michael Zuber
USAF/ACC/DOTW	Craig Blessing
USAF HQ ACC /A3TV	T.B.D.
ARSAG Secretary	Gomer Custer
ARSAG Exec. Director	Dex Kalt