

# **Engine/APU Halon Replacement Industry Consortium (IC)**

*May 14, 2014*

*INTERNATIONAL AIRCRAFT SYSTEMS FIRE PROTECTION WORKING GROUP  
MEETING*

*Bremen, Germany*

*By*

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# Industry is leading a broad stakeholder approach

The IC will . . .

- Define a common non-halon fire extinguishing solution for use in engine/APU fire zones that...
  - is compliant to basic industry and regulatory requirements
  - meets multiple OEM (airframe, engine, APU, nacelle, etc.) requirements
  - meets multiple governmental agency regulatory requirements;
  - provides a viable business solution for Consortium partners; and
  - is production-ready
- Engage...
  - Primary Stakeholders = Airframer OEMs
  - Members = Firex Agents/System Suppliers, Airlines, engine companies, nacelle suppliers, airworthiness authorities, etc.
  - A focal point, facilitator & fiscal/contracting “Managing Entity” (ME)
    - Boeing activities facilitating IC initiation will be turned over to the ME
- Execute to a plan...
  - Phase I – initial engagement, confirm interest, launch IC, engage ME, business agreements
  - Phase II – develop technical statement of work (requirements, performance validation, down selection criteria, etc.)
  - Phase III – execute activities required to produce the solution

# The IC is progressing

- Phase I
  - Stakeholder engagement growing since July 2013 Kick-off Telecon
  - Coordination Activities
    - First Face-to-Face IC Meeting in Philadelphia, December 3<sup>rd</sup>
      - *Seventh Triennial International Fire & Cabin Safety Research Conference*
    - Telecon every 4 weeks or so for entire IC
      - 5 airframers/subsidiaries, 10 suppliers/distributors, 2 chemical companies, 1 operator, 1 engine company, 1 aviation industry group, 2 U.S. military groups
    - As needed, Airframer OEM telecons and meetings for ME selection
  - ME candidates have been down selected and ranked by Airframer OEMs
    - Discussions ongoing between airframer OEMs and ME candidates
      - Mid April 2014 meeting held between airframers and an ME candidate
    - ME selection target April/May 2014
      - Running slower than desired; many complex issues
    - Signature of ME-developed working-together agreement is pacing item for initiation of Phase II
  - Continue ongoing stakeholder outreach and engagement

# The IC is progressing as planned

- Phase II - Technical Statement of Work Definition
  - Development of and agreement on...
    - Agent/System Design & Validation Requirements
    - Candidate agent/system evaluation plans down selection criteria
    - Etc.
  - Start will dependent on Phase I completion; ECDs are TBD
- Phase III - Primary Deliverable Development/Validation
  - All activities required to produce the Primary Deliverable
    - Identification of potential candidate agents/systems & solicitation of proposals
    - Evaluate against Phase II Agent/System Design & Validation Requirements
    - Down selection to go-forward agent/system candidate(s)
    - Testing & analyses
    - Final down selection to common agent/system candidate
    - Follow-on evaluation (as needed)
      - Testing & analysis (E.g. MPSHRe, Toxicology, SNAP approval, other)
    - Final agreement by members on Primary Deliverable •
  - Dependent on Phase I completion; ECDs are TBD

# IC Proposal Details & Interim Contacts

## IC Proposal Presentation Venues

- IASFPWG Meeting, Cologne, Germany, May 22-23, 2013
  - <https://www.fire.tc.faa.gov/pdf/systems/May13Meeting/BennettMacias-0513-ICInterestEgineAPU.pdf>
- Halon Alternatives Research Corporation (HARC) sponsored Aviation Stakeholder's Meeting Chicago, Illinois, U.S.A., 11 June, 2013

## ICAO

- 2013 ICAO Assembly recognized IC commitment ([link](#))

## Contacts:

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**Thank you!**