



## EUROCAE Working Group 80

### Hydrogen Fuel Cell Systems

### Call for Participation\*

\* **EUROCAE requires membership** to participate in the activities subject to this Call for Participation.  
For information please consult: <https://www.eurocae.net/membership/>

WG-80 was established to develop guidelines to support qualification and certification of Hydrogen Fuel Cell Systems in the various intended applications for airborne applications. WG-80 works as a joint group with SAE AE-7AFC to develop guidelines to support the use of Proton Exchange Membrane (PEM) Fuel Cell Systems for onboard aircraft applications. Performance requirements such as power and reliability are outside the scope of this working group.

The work is expected to benefit the entire community by allowing the safe introduction of new power generation solutions for a wide range of airborne applications.

The initial objective of the joint EUROCAE WG-80 and SAE AE-7AFC team was to identify the specific safety criteria which should guide the integration of fuel cell systems into aircraft.

EUROCAE WG-80 and SAE AE-7AFC released joint document ED-219/AIR-6464 in 2013, addressing safety guidelines for the integration of Hydrogen Fuel Cell Systems onboard aircraft.

The Working Group also released the joint Minimum Aviation System Performance Standards (MASPS) / Aviation Standard (AS) document ED-245/AS-6858 in 2017, addressing technical guidelines for the safe development, testing, integration, validation and certification of Gaseous Hydrogen (GH<sub>2</sub>) based PEM Fuel Cell Systems (FCS).

The Working Group is now working on the review of the fuel cell technology maturity with respect to aviation requirements and the thorough definition of future onboard fuel cell applications.

In line with the approved [Terms of Reference \(ToR\)](#), WG-80 is currently developing a joint report on general safety aspects and benefits of on-board hydrogen storage and fuel cells for aircraft applications.

Further joint activities are expected to expand to Minimum Aviation System Performance Standards (MASPS) / Aviation Specification (AS) that define the technical guidelines for the safe development, testing, integration, validation and certification of fuel cell systems which operate from other types of hydrogen source:

1. Liquid Hydrogen (LH<sub>2</sub>)
2. Onboard reforming
3. Material based storage of Hydrogen.

The FAA organised an Aviation Rulemaking Committee, mainly focused on Fuel Cell Systems in Aviation. EASA has actively participated to this activity and supports WG-80, ensuring acceptance of documents developed in certification projects.

WG-80 team would like to invite representatives from the industry as well as from research organisations which are active in the development of fuel cell and hydrogen systems to join this working group. This invitation also applies to players active in related ground services activities, so that hydrogen operations be also covered by relevant standards.

The team meets three times a year alternating between Europe and the US in three-day sessions. To find out more about the overall organisation of this work, please feel free to contact WG-80 chairman Olivier Savin: [olivier.savin@dassault-aviation.com](mailto:olivier.savin@dassault-aviation.com).

If you are interested in this activity and would like to contribute to the development of these standards, please complete the registration form available at <https://eurocae.typeform.com/to/Y1TZDi>.

*Please note that the target date for registration is 30 March 2018.*