Airborne Safety Systems: to keep you safe, in the air and on the ground.
Airborne Safety Systems

Your safety comes first!

Siemens: up-to-date technology that protects you from the worst...

No wonder how deadly any fire can be in an aircraft.

Quick and reliable detection remains compulsory.

That’s the reason why Siemens provides you bespoke solutions for any airborne fire protection system.
> Siemens: creating customized fire protection
What kind of aircraft are you willing to protect?
What kind of protection does it require?
What are the applicable regulations?

From military to commercial aircraft, from passenger to freighter configuration, we can provide you with an overall assistance throughout your protection project: risks identification in each area of the aircraft, safety concept and system definition, development of accurate smoke or fire detectors.

Our unique target: creating Siemens concepts complying with two mandatory requirements: Sensitivity and Reliability.

> Siemens: improving safety since 1962
Our commitment: to provide you the best safety ever.
Intensive R&D programs, high quality management in every step of the processes and up-to-date detection technologies have always allowed us to create and develop advanced solutions for every configuration, in compliance with relevant airworthiness authorities standards (FAA and EASA), such as FAR 25, PART 25 and PART 21.

> Siemens: quality above all, safety for all
Ultimate recognition of our quality standards and processes: we have been awarded the ISO 9001 – 2000 certification. This award emphasises the quality in every step of product development, manufacturing, distribution and customer support.

In addition, Siemens has also been awarded the EN9100 from the BVQI.
As quality means overall Safety.
DEDICATED APPROACH, BESPOKE SAFETY

Our approach is to first evaluate the fire risk and then to identify the most effective solution.
A highly effective and customized solution. The critical danger zones in an aircraft are mainly:
• the cargo holds (inaccessible in flight),
• the avionics bay due to the combination of electrical power generation and high ventilation airflow,
• the crew rest areas,
• the lavatories, potentially occupied by illicit smokers,
• in freighter aircraft, the main cargo section,
• and electronic bays of special military aircraft such as the Awacs and JSTAR, equipped with highly sophisticated and potentially hazardous electronics.

Optical smoke detection: up-to-date technology that enhances safety.

Our range of advanced Smoke Detection Systems contributes to significantly reduce the fire risk.
This by providing early reliable accurate warning of smoke presence in the protected area. These early and reliable warnings allowing the flight and cabin crew to take appropriate action in due time.
More than 30 years securing the sky...

1975. Our first airborne Smoke Detection System is developed for a revolutionary new passenger aircraft called Concorde.
Mid-80’s: the first centralized Smoke Detection System is launched on the Airbus A320. The safety revolution is in progress.
Mid 90’s: a new generation of advanced Optical Smoke Detectors is made available.
Early 2001: A new digital communication protocol enables information to be managed faster and smarter.
2007: Multicriteria Fire Detectors are on operation to secure new aircraft generation.

INVOLVED IN EVERY KIND OF SAFETY

Since the early 70’s, we have developed Smoke Detection Systems for Aerospace Applications.

Concorde: The “Root”, the first aircraft secured by us.

Airbus:
- A300B4
- A300/A310
- A318
- A319
- A320
- A321
- A330-200 / A330-300
- A340-300
- A340-500 / A340-600
- A380

Boeing:
- B717

Military applications:
- Transall
- Boeing E3 AWACS
- Northrop Grumman JSTARS
- BAe Nimrod MRA4
- Alenia C-27J
- CN 235
- A330 MRT

D to C Market:
- Upgrade of several B727, B737, DC8, DC9, MD80
- L1011
- Fokker 100

P To F:
- Airbus A300 B2/B4, A300-600, A310
- Boeing B747-400
- Boeing B767-200
- Saab 340
- ATR 42/72

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- ATR 42/72
Deploying safety in every kind of aircraft

P-to-F conversion

You are about to launch an ambitious Passenger-to-Freighter conversion, and you have to implement an efficient and cost effective Fire Detection System to comply with the FAA “1-minute smoke detection” regulation?

We have developed customized Smoke Detection Systems specifically dedicated to P-to-F conversion and currently installed on various converted Freighter aircraft (e.g. A300B2F/B4F, A300-600F, A310-200/300F, SAAB340F, B767-200F, B747, etc.).

Based on up-to-date Optical Smoke Detectors that significantly reduce false alarms, Siemens offerings includes different versions of detectors suitable for all aircraft configurations.

• “open air”, (natural propagation of fire aerosols and smoke)
• “flow thru” (to be connected to an air sampling system that means sniffers, pipes and a venturi source to draw the air)

Smoke Detection Systems also include control unit or specific advanced cockpit control unit to handle a unique and smart “dual loop” logic to guarantee an optimised detection capability while discriminating false alarm situation.

Protection systems for VIP AIRCRAFT

We propose customized products dedicated to VIP applications, from smoke detectors to specific panels. Furthermore, new concept of system can also be proposed to fully comply with your project.

We have been chosen by major VIP aircraft completion centres worldwide (Jet Aviation, Air France Industries, Sogerma, Lufthansa Technik...) and successfully developed Smoke Detection Systems to fit their unique requirements.

Integrators

From toilet to Crew Rest, each module requires fire protection system. For each environment, we propose detectors which are TSO certified, recommended by the aircraft manufacturers and widely used by the major integrators.

We provide you with technical assistance from the analysis of your technical constraints to the support on operation of our products.
Providing reliable safety on every part of the aircraft

From avionics bays, cargo compartments, crew rest areas and lavatories, we provide you with leading edge technology for ultimate safety. Reliable and efficient solutions that allow the flight and cabin crew to take appropriate action at the right time. To ensure both passenger and crew safety.

We have developed Fire Detection Systems designed for the protection of cargo compartments of passenger and freighter aircraft.

These Fire Detection Systems are perfectly adapted to extremely vulnerable cargo areas where the access in flight is not possible and where a system that significantly reduces the risk of spurious warnings is an essential requirement. We offer dual loop Fire Detection Systems which increase the systems integrity and reliability.

Technical Cabinets
A wide range of smoke detectors are also available and provide increased flexibility in system definition and installation.
The solution: the KTA2400 Lavatory & Crew Rest Smoke Detection System. The KTA2400 Smoke Detection System includes a control panel and up to six smoke detectors. This system is very easy to operate and install. It is mainly used for lavatory and crew rest compartments smoke detection, certified on almost every aircraft type (including Airbus, Boeing...) and has been specified by a large number of airlines. The KTA system fitted with optical detectors provides several advantages for the operators such as low maintenance cost, very low false alarm rate. Autonomous optical detectors such as CGAB1201 & CGAB1100 are also fully adapted for lavatory smoke detection application and can be retrofitted in any aircraft type (FAA TSOC1c certified). These two units are already installed on the MD-90, B747-400SF and B767-200SF. These systems incorporate optical smoke detectors or multicriteria fire detectors to further reduce false alarm & optimize detection in such challenging environment.

Avionics and electronics bays
Avionics and electronic bays represent one of the most critical area of the aircraft. As the consequences of any fire would be catastrophic, we have developed Optical Smoke Detection Systems which reduce spurious alarms and enhance alarm reliability. Complying with the most demanding EASA regulations, our systems have met the needs of a large number of aircraft manufacturers and airlines.

Updating your lavatory smoke detection with Optical Smoke Detectors
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The future shape of Fire Detection Systems: MultiCriteria Fire Detectors for cargo holds and avionics bays

Cargo compartment smoke warnings require to activate fire suppression system and to land the aircraft ASAP, which lead to significant additive risks and costs. FAA investigations demonstrate that 99.5% of current events are false alarms and 0.5% confirmed fire events.

Today, Siemens introduces the new shape in airborne fire detection. The GMC 1100 Fire Detector pushes the limits of airborne fire safety through a brand new technology: the Multicriteria Logic.

This Multicriteria logic enables:
- a balanced response to all fire types allowing a huge improvement of the detection spectrum (i.e. flaming fires), enhancing safety,
- high immunity to fog, condensation, dust and non fire aerosols generally found in operation such as exhaust pipe aerosols according to selection and combination of relevant sensor technologies and new detection algorithms.

The use of MultiCriteria Fire Detectors within cargo compartments enhances drastically false alarm immunity, provides a huge improvement in fire detection performances. It will benefit the airlines in reducing costly flight turn backs or delays and enhancing the level of safety.

Assistance to certification

We offer a strong assistance in the whole aircraft development process. In particular, a smoke generator can be used from initial definition of the Smoke Detection System installation up to certification flight tests. This up-to-date tool quickens the technical development and simplifies the certification process.

This smoke generator is used by the major aircraft manufacturers. An up-to-date tool designed to make sure that the final product will guarantee efficiency and reliability under any kind of conditions.
We provide you a worldwide support whenever you need it, wherever it is necessary. Repair facilities are at your service in France, USA and in Singapore. Also, in conjunction with SAVE-GIE - an association of aircraft equipment manufacturers - we run AOG services, 24 hours a day, 7 days a week.

Repair stations and distributors:

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  Burbank, CA 91504
  U.S.A.
  Tel: (818)-246-8431
  Fax: (818)-243-8965
  www.triumphinstruments.com

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