

Capabilities

FRA staff has extensive fire & life safety experience in airports and aviation facilities including:

- ✦ Very Early Warning Smoke Detection System Analysis and Design
- ✦ Smoke Control System Design and Smoke Movement Modeling
- ✦ Fire Detection and Suppression Modeling
- ✦ Egress Analysis and Design of Passenger Flow Systems
- ✦ Dry, Wet, and Pre-action System Design
- ✦ Hanger Fire Detection and Suppression
- ✦ Testing and Commissioning
- ✦ Design Fire Analysis and Heat Release Rate Modeling
- ✦ Emergency & Mass Notification System Design
- ✦ Tunnel & Transit Station Smoke Control System Design and Smoke Movement Modeling
- ✦ Emergency Response Plan Development and Training
- ✦ Fire Protection Master Planning
- ✦ Ventilation and CFD Modeling
- ✦ Risk Assessment and Hazard Analysis



FIRE & RISK ALLIANCE

About Us

Fire & Risk Alliance is a leader in fire and risk engineering. Our staff is composed of highly trained and educated engineers and scientists that focus on developing optimized solutions for our clients throughout the world. Our hands on practical experience, active engagement in the industry, and our applied research ensure that we provide state of the art solutions to our clients.



Fire Protection & Life Safety Design

FRA has extensive knowledge of fire protection and life safety codes. We design cost-effective systems that meet code requirements and can handle any unique challenges or structures using a performance-based design. Our designs ensure the safety of occupants, property protection, and continued operations.

Fire, Smoke Control, and Egress Modeling

FRA staff are experts in the use of zone, CFD, and specialty egress/people movement models. We use fire modeling to simulate fire driven flows, evaluate detector activation times, determine the impact of suppression systems, and determine the impact of ventilation and smoke control systems. Additionally we use tools for the evaluation of smoke movement, design of smoke control systems, and egress analysis.



Project Experience

- Denver International Airport
- San Francisco International Airport
- Doha International Airport
- New Doha International Airport
- Sacramento International Airport
- SFO Air Traffic Control Tower
- FAA Tower Support
- Air National Guard, WV
- Keesler Air Force Base
- Little Rock Air Force Base
- Edwards Air Force Base
- USAF Forward Operations Center, Curacao

Contact

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Or visit us on the web to see our complete range of services

Code Consulting

Our engineers and consultants ensure that designs comply with all safety and accessibility requirements while ensuring that the spaces function and architectural features are not impaired. Code consulting can aid in new design and retrofits and can support code equivalencies and variance requests.

Emergency Response Plans and Training

Fighting fires can often be intense and challenging. FRA works with airport and local authorities to develop tailored emergency response plans that clearly lay out hazard locations, capabilities of onsite fire protection equipment and response strategies based on the experience and training of the responding personnel.

Risk & Hazard Assessment

FRA is a leader in the field of assessing risks, modeling hazards and performing hazard/risk studies for a wide range of applications. Using the latest modeling technologies, FRA has provided clients with detailed analyses of new and existing sites. These analyses are used to better understand impact of hazards on site configuration, onsite personnel and responding emergency personnel.

Laboratory and Specialized Testing

FRA maintains a fire and wet lab at its Rockville, MD office that is equipped with standard and specialized test apparatus including state of the art spray characterization, gas dispersion testing, and fire testing capabilities. We provide custom test design aimed at supporting specific client needs. Our staff is involved in the development of many codes and standards and sit on numerous technical committees for NFPA, SFPE, ASTM, and others.

