

Congress on

# SAFETY

in Engineering and Industry 2021

*Leading Safety into the Future*

**NOVEMBER 1-3, 2021**

**Sheraton Fort Worth Downtown Hotel**

**Fort Worth, Texas, USA**

**#SafetyCongress2021**



**Supporters:**

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[www.safetycongress.org](http://www.safetycongress.org)

## FROM THE PROGRAM CHAIR



**Roland L. Moreau**  
Congress on Safety in  
Engineering and Industry  
2021 Program Chair

**“The Congress on Safety in Engineering and Industry is the first event of its kind—and I strongly encourage you to be part of it.**

“The inaugural installment of the congress brings together the expertise of eight leading engineering professional societies and the National Academies to offer a dynamic, cross-sector learning and networking opportunity that addresses shared safety challenges.

“Most safety and risk practices are not proprietary, and many can be applied in an array of settings and situations. However, no space has existed where decision-makers from different industries, academic institutions, and government agencies and laboratories could share best practices, with the objective of identifying core safety principles that can benefit all. Until now.”

**[www.safetycongress.org](http://www.safetycongress.org)**

# REGISTER EARLY AND SAVE MONEY

## Learn the Latest in Workplace Safety



## Register for Safety Congress 2021

The Congress on Safety in Engineering and Industry (Safety Congress 2021) is for leaders, managers, and safety professionals seeking to expand their skill sets and gain cutting-edge knowledge while receiving guidance to advance their own organizations.

Attendees will learn best practices in the following areas:

- Operational, Process, and Project Safety
- Safety Leadership and Culture
- Safety Management
- System Design and Implementation
- Effective Use of Data Metrics
- And More!

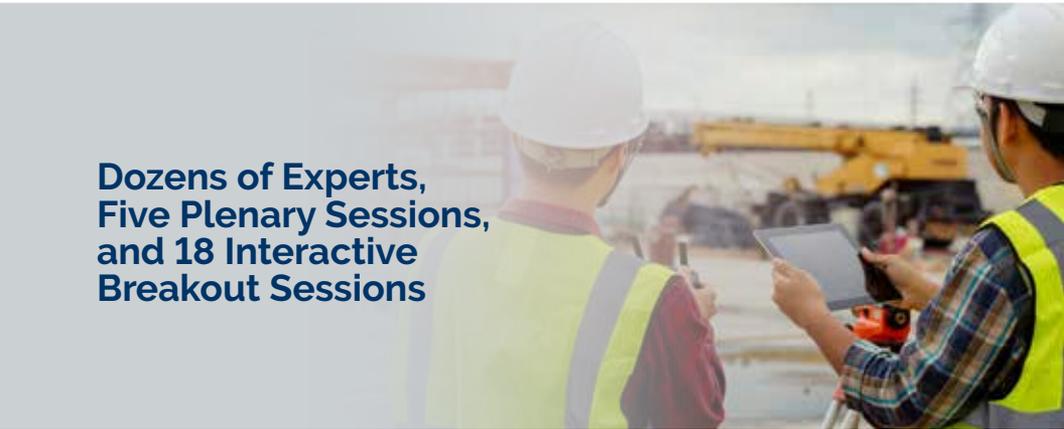
### Rates:

\$545 by Sept 20  
\$645 standard fee

*Student discount available,  
requiring student identification.*

**Save \$100**  
when you register by  
**September 20, 2021** at  
**[safetycongress.org](https://safetycongress.org)**.

# PROFESSIONAL DEVELOPMENT



**Dozens of Experts,  
Five Plenary Sessions,  
and 18 Interactive  
Breakout Sessions**

Registration includes two keynotes, one dinner, plenary talks and a choice of breakout sessions with experienced leaders. Attendees learn new methods and strategies to improve safety in their workplaces.

## **Pre-Congress Short Courses**

Take advantage of professional development opportunities on Sunday, October 31.

- **Process Safety in Engineering and Industry Course:** This course offers the one-day overview of risk-based process safety from the Center for Chemical Process Safety (CCPS).
- **Certified Mine Safety Professional (CMSP) Examination:** Earn the credential! Successful completion of the CMSP examination indicates experience and knowledge of best practices. Candidates must be approved and pay the certification fee.

**Pre-Congress  
Short Courses:  
October 31, 2021**

# OPENING KEYNOTE

**Jim Wetherbee**  
Captain, U.S. Navy (retired);  
Former Astronaut, NASA



## “Controlling Risk—In a Dangerous World”

On the front lines of danger, operators face hazards and make life-and-death decisions in dynamic, complex situations. They are the last line of defense. How do we help them stay alive—and be more productive? Managers in organizations manage risk with systematic processes intended to limit the assessed risk. Even in the best organizations, when it is time to go to work, operators don't manage risk; they control risk. To prevent all accidents—even unpredicted ones—the front-line workers need techniques to supplement the rules and procedures. Since the beginning of the space program, astronauts have developed techniques based on the principles of operating excellence to execute missions and stay alive in unforgiving environments. These principles-based techniques can help optimize performance in any high-risk businesses, and accomplish more in our dangerous world—or out of this world!

View a full agenda and to learn more about the speakers at [www.safetycongress.org](http://www.safetycongress.org).

# CONGRESS DINNER WITH KEYNOTE

**Chris Hart**  
Founder, Hart Solutions,  
LLC; Chair, Washington  
Metrorail Safety  
Commission; and  
Former Chair, National  
Transportation Safety  
Board.



## **“The Power of Collaboration to Improve Safety”**

In the mid-1990s, the fatal accident rate in U.S. commercial aviation, after declining significantly for several decades, had begun to reach a plateau. The industry's response was a collaborative safety improvement program called CAST, the Commercial Aviation Safety Team. CAST brought together the key industry participants – airlines, manufacturers, pilots, air traffic controllers, mechanics, airports, and the regulator – to collaborate. Their work would (a) identify safety issues; (b) prioritize those issues, since more issues would be identified than there were resources to address; (c) develop interventions for the prioritized issues; and (d) evaluate whether the interventions were producing the desired outcome.

CAST has been successful beyond all expectations. Although many safety experts thought that the fatal accident rate in the 1990s was already exemplary, CAST reduced the rate by more than 80% in less than 10 years, while also improving productivity. This presentation is about the transferability of CAST to other industries, including nuclear power, petroleum exploration and refining, chemical manufacturing, and healthcare, to name a few.

# DAY 1: SCHEDULE AT A GLANCE

## Monday, November 1, 2021

**8:00 a.m. Welcome and Opening Keynote**

Jim Wetherbee: "Controlling Risk in a Dangerous World"

**9:30 a.m. Plenary Topic:**

The Value Proposition for Safety

**11:30 a.m. Breakout Sessions**

The Role of Health, Safety, and Environmental Management Systems

Integration of Safety in Regulatory Frameworks

Leadership Development

**2:30 p.m. Breakout Sessions**

University Safety Culture Best Practices and Opportunities

Effectively Managing Complex Systems

Leadership for Today's 24/7 Problems

**4:30 p.m. Breakout Sessions**

Funding Effective Partnerships for Improving Safety

The Role of Unmanned Aircraft Systems in Enhancing Safety

The Day We Will Remember—Safety Leadership on a Personal Level

**6:00 p.m. Networking Reception**

The speakers represent corporations, major universities, and government organizations. To see the full line-up, go to [www.safetycongress.org](http://www.safetycongress.org).

# DAY 2: SCHEDULE AT A GLANCE

**Tuesday, November 2, 2021**

- 8:00 a.m. Plenary Topic:**  
Executing an Effective Risk Management Program
- 10:00 a.m. Breakout Sessions:**  
Suicide and Fatigue in Construction and Other Industries—Something We Need to Talk About  
Incident Investigation  
Identifying Critical Issues during the Review of Lift Plans for Cranes and Alternative Lifting Methods
- 11:30 a.m. Lunch Break and Networking**
- 1:00 p.m. Plenary Topic:**  
The Role of Technology and Innovation in Improving Safety Performance
- 2:45 p.m. Breakout Sessions:**  
Preparing University Students for Industry  
Case Studies: Challenges in Learning from the Past  
Interfacing Workers and Machinery in an Industrial Environment
- 4:30 p.m. Plenary Topic:**  
Planning and Preparedness for Safety and Health Emergencies
- 6:00 p.m. Dinner with Keynote**  
Chris Hart: "The Power of Collaboration to Improve Safety"

# DAY 3: SCHEDULE AT A GLANCE

**Wednesday, November 3, 2021**

**8:00 a.m. Plenary Topic:**  
Leading the Future of Safety by Learning from the Past

**10:00 a.m. Breakout Sessions:**

- Prevention through Engineering Design
- The Role of More Effective Data Management
- Risk Identification and Tolerance

**11:30 a.m. Closing Remarks**

## EXPLORE FORT WORTH!

Discover why the “City of Cowboys & Culture” attracts more than nine million visitors annually.



# BOOK HOUSING

## Book the Sheraton's Group Rate

**\$159 per night**

Your registration includes access to the welcome reception, keynote and plenary talks, breakout sessions, breakfasts on Monday, Tuesday, and Wednesday, and dinner on Tuesday night.

Register **before September 20** to receive the advanced registration discount!

Staying at the Sheraton Fort Worth Downtown Hotel will give you quick access to the sessions and networking opportunities. A block of rooms has been reserved at a special group rate of \$159 per night.

Please note that housing rates are not guaranteed once the block is full, or beyond October 7, 2021, whichever comes first.

Complete your congress  
registration and book  
housing online at  
[www.safetycongress.org](http://www.safetycongress.org).

**Sheraton Fort Worth  
Downtown Hotel  
1701 Commerce St.  
Fort Worth, TX 76102**