

# SAFE News

Dedicated to Ensuring Personal Safety and Protection in Land, Sea, Air, and Space Environments

SAFE Association – Our 64th Year

Volume 25 | Number 4 | Fall 2022

## SAFE Members, Conference Attendees and Guests:

It's that time again and we are looking forward to getting together for the 60th SAFE Association Conference in November. This year's incredible agenda from the SAFE Symposium committee will be discussed later in this newsletter and I encourage all to attend. There will be several noteworthy events.

Enough said that the last couple of years have been challenging in many ways. But one thing we know about this group is that we're resilient and dedicated. We've persevered and now it's time to get back to "normal." This is exactly what the 60th SAFE Association in beautiful Mobile, Alabama intends to do.

I encourage you to take the time to reconnect with your peers and renew those relationships. One of the greatest resources we have in our organization are our members (including our Company Sponsors) and their dedication to the life-saving mission.

I want to thank our SAFE Symposium Committee Chair Ted Poe and Co-chair Emma Sutcliffe, as well as Casey Pirnstill, the Science & Technology Program Committee Chair, and the many other volunteers for putting together an excellent program for our members. They have put together a superb program experience to enhance your professional growth and expand your knowledge.

We are always striving to make SAFE Association better and find new ways to meet the needs of our membership. Please don't hesitate to give us your valuable feedback. Feel free to pull me, or another officer, aside and share your ideas.

On behalf of the entire 2022 Safe Association - Board of Directors, thank you for your support and attending. We look forward to renewing the value SAFE provides you!

Jerry Reid  
SAFE Association President

### *Reminder* to All SAFE Members:

It is important that the SAFE Association has your current contact information so we can contact you and distribute SAFE products, such as the Newsletter. Periodically, please go to the "Member Login" at the top, right corner of the SAFE Association web page. When the SAFE Directory appears, click on "**Update Your Profile**" at the top, left. Please review your personal information and, update anything needs to be changed, and click on "**Save Profile**" at the bottom of the page. Your efforts are much appreciated!!

## President-Elect Message:

By Kevin Divers

Our next annual symposium, the 65th, is just around the corner and I look forward to seeing you-all at this event in Mobile, Alabama. A lot has gone on behind the scenes since the last symposium to improve the whole event for those in attendance. We hope that this second time in Mobile finds much easier trips to and from the airport as well as the exhibitors getting more traffic at their booths for the duration of the event. Of course, we will still have great technical presentations as a main part of the program so that attendees can get the latest and greatest findings in our fields of expertise!

As we all know, the success of the Symposium depends on the gathering of government and industry to hear what the needs are and what items are out there to meet those needs. This takes getting more and more folks to the event who can benefit from attending. So, we ask that Industry and Government attendees find the time to encourage others to attend...whether they start attending again or if they come to their first SAFE Symposium. The key is getting people to the event and getting the most out of it. Our Symposium Committee

and the City of Mobile have worked hard to define activities and provide open meeting places for attendees to enhance their enjoyment and the collective intent of the Symposium; technical exchange and the showcasing of industry capabilities.

Another topic we would like to emphasize is Academics... more specifically, attracting current students and those soon-to-be in the Industry, Government, or Military. Our Symposium provides an opportunity to identify available career options as well as the many varied industries at work with the collective mission of preserving human life. We encourage schools to bring in their marketing and recruiting teams, especially for the day that we open up the exhibit floor to local schools and youth programs - to encourage STEM and other industry opportunities.

Finally, something I wish I had done now that I am where I am with the SAFE Association, is to have maintained my SAFE membership while I was on active duty in the Air Force. Sure, I attended many symposia and experienced the same things. But, not maintaining my membership from those years

ago did leave a gap. I would be a 20 plus year member at this point if I had maintained my membership, one which is still one of the most affordable out there these days. Can I say I have been attending for over 20 years? Sure...but for a small personal investment, I could have worked with or on the Board of Directors much earlier. As a veteran no longer on active duty, I behoove those in the military now or even the young industry members who are not members but their companies bring them to SAFE annually to join now and be involved. It pays off, but it does take your personal investment.

Before I take on the position of President at the end of this year's Symposium, I want to encourage all of you to reach out to those you remember attending previous symposia that may not attend anymore, as well as those who are in the field of preserving human life who have not attended SAFE Symposia, to come to Mobile and see what we are about. We have a lot coming ahead for those who are members and now is the time to get that membership started. Be part of what is making the SAFE Association be its best for the field!

## Attention Corporate Members

The SAFE membership is eager to hear about what is going on with your organization! Members want to hear about anything new...like job openings, internal promotions, new products, recent contract awards, accomplishments, plans, and patents. It is up to you! SAFE members are interested in what is going on with your organization and your product lines. Please consider sending articles for future SAFE News editions. They should be sent to:

**Stacy Stuber**  
admin@safeassociation.com

**Steve Merriman**  
scmerriman@tx.rr.com

## Please Send Us Your Advertisements!

## 2022 SAFE Symposium Update:

Hi everyone! As you read this article, we are under 30 days before we meet in Mobile Alabama for the SAFE Association 60th Symposium. The symposium team as well as the board of directors have planned a fantastic event and we look forward to welcoming you back to our symposium. Over the last several weeks, you have seen several updates on our agenda as well as getting updates on various events that will be scheduled.

To not repeat ourselves, we would like to just list a simple series of key points for you to be aware of and to provide you links to where to find all the information you need. This year the symposium committee has developed a symposium event portal that has all the information you will need prior to arrival, during, and after you depart. The site is live now and we invite you to check it out today and use it as a go to the site as you prepare, attend, and then depart our 60th symposium.

Symposium Event Portal: <https://safesymposium.com/>

Our Symposium Agenda: <https://safesymposium.com/daily-schedule>

Information about Industry Day: <https://www.safeassociation.com/index.cfm/page/2022-industry-day>

As we get closer to the event, more information will be added and linked to this portal so that the information is just a few clicks away. At the end, we will have the following items available for your use:

- Agenda – This area will have hold all of our agenda items as well as key points of interest to the days schedule.
- Science & Technology Program – This area will provide our attendees a central location to all paper and panel abstracts
- Exhibitors & Sponsors – This area will provide a site map, exhibit map, as well as list of all exhibitors and sponsors.
- Venue & City Events – We will have local area information, sign up links for special tours (first come first serve), and links to transportation information for busses from and to the airport

*(Continued on page 4)*

Event Portal

SAFE Association 60th Annual Symposium

Our mission is the preservation of human life

November 1 - November 3, 2022 - Mobile Convention Center

SAFE Association Symposium  
Let me know if you have any questions!

Daily changes are expected and thus to get you that information we will post each morning by 0730 CST the days changes to any schedule as well as keep the site updated live during the actual event.

This year we our planning several special events and with that we would like to bring to your attention five events that we look forward to sharing with you:

Presidents Awards Reception: Monday 31 Oct – Exhibit Hall – Start 17:30 – This event will show case our annual awards program and then offer all attendees a reception with light canapés and refreshments.

Exhibit Hall Open for Business: Monday 31 Oct – 1730 – 2030 Hours – 60 plus exhibitors are ready for networking and business.

Opening Ceremony – Welcome – and Special Presentations – 0800 Start – This event is the official kick off moment for our 60th Symposium. We have lined up key speakers relevant today for all attendees. During this event we will show case a new industry technology that has won numerous awards this year. We look forward to introducing this new industry partner to our members and community.

60th Symposium Celebration Event – Tuesday 1 Nov – 1800 – 2100 – This event will kick off our 60th Celebration Event in the Exhibit Hall. We have food, refreshment, music as well as all the exhibitors will be open for business.

Equipment Demonstrations – Water Demonstrations – US Coast Guard Water Demonstration – This year we will be hosting several STEM and Junior ROTC organizations at the same time show casing numerous in water equipment demonstration along with a special demonstration by the local US Coast Guard organization.

As you can see – we have a jam-packed event. In all, we are tracking 170 plus separate program events that will take place during your visit to Mobile and our 60th symposium. From all of us on the committee we are looking forward to welcoming you soon in Mobile Alabama for our 60th Annual SAFE Association Symposium.

## **2022 SAFE Symposium Science and Technology Update:**

Welcome, everyone! The 2022 SAFE 60th National Symposium Technical Program is just around the corner and set to take place in Mobile, Alabama starting Tuesday, November 1st through Thursday, November 3rd; it will address the most critical current topics within the field of aviation protection, safety and performance. The technical program this year is diverse in nature covering Safety topics along with biomechanics/injury, anthropometry, several sessions on computational modeling of injury and ejection system safety.

Additionally, this year's technical program includes many DoD-led panels ranging from The injury panel on Monday October 31st to additional panels on hearing protection, acute HSM JPC-5 joint service discussion, I-PREDICT computational modeling and panel covering identification and mitigation of LPU inflation discrepancy. But, as usual, the program covers a variety of topics including oxygen, clothing, CBRN, helmets, hearing protection, training, CAD/PAD and aerospace physiology. Numerous sub-topics such as monitoring oxygen quality and detection of contaminants in the cockpit, survival training, accommodation, dynamic test and modeling, human factors, and cartridge-actuated devices will be discussed over the course of 22 sessions.

Mr. Mark Ruddell from the U.S. Air Force Safety Center will highlight trends in U.S. Air Force Flight Safety. Furthermore, to complement the many technical sessions, the program will include a service Acquisition Program Management brief given by the U.S. Air Force and U.S. Navy Program Offices. This is in addition to a services Science and technology brief that will include presentations from U.S. Air Force, U.S. Navy and U.S. Army. Finally, we are soliciting more papers for the SAFE Technical Journal. The next issue will be published in 2023.

Regards,  
Casey W. Pirnstill, Ph.D.  
SAFE Symposium 2022  
Science & Technology Chair



# SAFE Journal: 2022 Edition

By Dr. Camille Bilger, 2022 Journal and Editorial Committee Chair

Watch out for the next edition of the SAFE Association Journal ! A limited number of hardcopies will be available at this year SAFE Symposium in Mobile, Alabama. Do not miss out ! It will also be made available electronically on our website for FREE to all SAFE members !

I sincerely hope that you will enjoy reading about your peers' work; a large variety of research topics are published in this 2022 edition

## Get your work published!

The process for manuscript submission and publication is comparable to any other international peer-reviewed journal. A Guide to Authors will take you through the submission and publication processes. Please email me at Editor@safeassociation.com for further information.

The Journal committee is working hard to perfect our processes and frameworks further. We plan to build a dedicated webpage for the Journal on the SAFE Association website, which we hope our SAFE members will find useful.



**JOIN US!**  
[linkedin.com/company/safe-association](https://www.linkedin.com/company/safe-association/)

**Follow us on Social Media**



<https://twitter.com/SAFEAssociation>

# Welcome

## NEW INDIVIDUAL MEMBERS

**Jeffrey Henderson**  
Gulf Breeze, FL

**Christine Hussey**  
Langhorne, PA

**Tom Tavares**  
Orlando, FL

**Marya Schnedeker**  
Chelmsford, MA

**Tyler Welden**  
Jacksonville, FL

**Corey Holt**  
Bossier City, LA

**Jeffrey Waldrop**  
McKinney, TX

**Peter Le**  
Wright-Patterson AFB

**Piper Forcier**  
Prescott, AZ

**Lincoln Miller**  
Beavercreek, OH

**Keyurkumar Patel**  
Edinburg, Australia

**Tessa Berry**  
Edinburgh, Australia

**Mathew Beales**  
Klemzig, Australia

**Matthew Fields**  
Coningsby, United Kingdom

**Brian Ostermann**  
Crestview, FL

**Pete Cook**  
Central Falls, RI

**Mike Boisvert**  
Central Falls, RI

**Richard Hinton**  
Colorado Springs, CO

**Brad Mastrolia**  
Colorado Springs, CO

**Grant Wales**  
Brisbane, Australia

**Timothy Bentley**  
Arlington, VA

**Bruce Murrell**  
Brookwater, Australia

**James Barnaba**  
Spring Valley, OH

**Ryan Shawler**  
Dayton, OH

**Vincent Cooper**  
Murfreesboro, TN

**David McCain**  
Springboro, OH

**Joanna Nabeta**  
Peyton, CO

**Brett Miller**  
Colorado Springs, CO

**Nancy Currie-Gregg**  
College Station, TX

## NEW CORPORATE MEMBERS

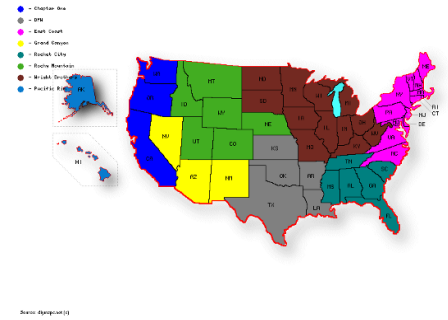
**IWCS ApS**  
Kvistgaard, Denmark

# News from the Chapters Chair

By John Plaga

## Members Being Added to Chapters

The SAFE Association is working on maximizing the benefits to its members, and the Board believes that we can increase communications and contacts by emphasizing local Chapter participation and assigning members to specific chapters. Most of the members in CONUS have already been notified about which chapters that they have been assigned to, and there has already been some positive effects in better connecting the members to the local Chapters. If you haven't already been notified, I will be contacting you shortly with your chapter assignment. If you agree with this assignment, you don't need to do anything else...we will forward your email address to the Chapter President so that you can be added to the Chapter Distribution List. If you would rather be assigned to a different Chapter, please let me know and we'll make that happen. Also, if you want to also be added to one or more other Chapter Distribution Lists, let me know which one(s) and I'll add you. As a reminder, the geographic assignments are shown below.



## New Chapter Formed - The Rocky Mountain Chapter

On September 8th, our 11th Chapter, the Rocky Mountain Chapter, was formally established. Mr. John Hampton has volunteered to be the Acting President until formal elections can be held. The locus of this Chapter is in the Colorado Springs area and also includes all of Colorado, Utah, Idaho, Wyoming, Montana and Nebraska. Current Association Members in these states will automatically become members of this Chapter unless they wish to be in a different Chapter. We are also looking for members to be on the Acting Board for this Chapter (as well as those willing to run for these positions) which include:

Vice President

Secretary

Treasurer

If you are interested in being one of the acting Board members and/or run for one of the positions, or know of any other potential members in this area, please let me know.

## THE GRAND CANYON CHAPTER OF SAFE ASSOCIATION (Bob LaFrance, President)

At the Grand Canyon Chapter of the SAFE Association we are scheduling our next get together for the weeks after the National SAFE Symposium in Mobile. An announcement will be sent to members in the next few weeks. The Chapter plans to meet at the Pima Air Museum in Tucson, Arizona. The Pima Air Museum (<https://pimaair.org>) is one of the most amazing in the US, having many aircraft belonging to the USAF Museum in Dayton on display. We will have a unique tour guide with great knowledge of the museum and the aircraft within. Working with the curator and museum board members we are guaranteed a great time. With good luck, we will also have access to Davis-Monthan Air Force Base right next door. With some even better luck, we will get a Boneyard Tour, just across the street from the museum. Many aircraft have been tugged across that road. This will depend on numbers of folks that attend.

In other news, Jennifer Nikopoulos will be organizing this event and future events. Jenn has agreed to "gather the troops" on the SAFE Association list of members attached to the Grand Canyon Chapter and provide insight and guidance. Jenn is the IT and Marketing Materials coordinator at Task Aerospace in Mesa, Arizona. We look forward to seeing everyone at the Symposium and at the Pima Air Museum.

## Wright Brothers Chapter (Mark Gruber, President)

On August 23rd, the WBC had it's first in-person luncheon meeting since COVID, with 14 individuals attending. Dr. Kathleen Robinette gave a presentation on commercial aircraft minimum seat dimensions for safety. This was inspired by the FAA sending out a call for comments on this topic:

*(Continued on page 7)*

<https://www.faa.gov/sites/faa.gov/files/2022-07/Minimum-Seat-Dimensions-Request-for-Comments.pdf>

Kath's presentation addressed why the seats are currently too narrow for health and safety. She had previously given a TED talk about this some years ago and it can be viewed here: <https://youtu.be/x3Pn2rMm20g>. She is planning on submitting comments by 1 November, so if anyone has any feedback or comments, please let her know.

The SAFE Association Wright Brothers Chapter held its annual membership & awards picnic on September 22 at Shellabarger Park Shelter, 5875 Bayside Dr, Riverside, OH 45431. Food was catered from City Barbeque, which was complementary for current SAFE Association members with up to date dues. The picnic is to encourage current members to renew their membership and to encourage non-members to join the SAFE Association, as well as to recognize significant accomplishments of individuals in the field of Safety and Survival. Mr. Brad Mastrolia was awarded the WBC John Frazier Outstanding Senior Engineering Award for his 37 years working in the Safety industry, particularly in the areas of designs and modeling for escape systems.

## 2022 SAFE ASSOCIATION BOARD OF DIRECTORS

### ELECTED BOARD MEMBERS

PRESIDENT & FINANCE  
COMMITTEE MEMBER  
**Jerry Reid**

PRESIDENT-ELECT & FINANCE  
COMMITTEE MEMBER  
**Kevin Divers**

SECRETARY  
**John Hampton**

IMMEDIATE PAST PRESIDENT &  
FINANCE COMMITTEE MEMBER  
**Ebby Bryce**

VICE PRESIDENT & FINANCE  
COMMITTEE MEMBER  
**Nicole Stefanoni**

TREASURER & FINANCE  
COMMITTEE MEMBER  
**Steve Bromley**

### APPOINTED BOARD MEMBERS

EXECUTIVE ADVISOR  
**Allen "Al" Loving**

INFORMATION MANAGEMENT  
COMMITTEE CO-CHAIR  
**Lauren Divers**

AWARDS COMMITTEE CHAIR  
**Mark Jones**

SYMPOSIUM COMMITTEE CHAIR  
**Edgar "Ted" Poe**

SCIENCE & TECHNOLOGY  
COMMITTEE CHAIR  
**Casey Pirnstill**

ASSOCIATION DEVELOPMENT  
COMMITTEE CHAIR  
**Matt Miller**

SYMPOSIUM COMMITTEE CO-CHAIR  
**Emma Sutcliffe**

CHAPTERS COMMITTEE CHAIR  
**John Plaga**

MEMBERSHIP COMMITTEE CHAIR  
**Steve Roberts**

INFORMATION MANAGEMENT  
COMMITTEE CHAIR  
**Stephen C. Merriman**

NOMINATIONS COMMITTEE CHAIR  
**Joe Spinosa**

JOURNAL AND EDITORIAL  
COMMITTEE  
**Dr. Camille Bilger**

### CHAPTER PRESIDENTS

CHAPTER ONE -  
SOUTHERN CALIFORNIA  
**Kirsten Larsen**

GRAND CANYON CHAPTER  
**Bob LaFrance**

WRIGHT BROTHERS CHAPTER  
**Mark Gruber**

EAST COAST CHAPTER  
**Dave DeSimone**

PACIFIC RIM CHAPTER  
**Dr. Robert Yonover**

DFW METRO CHAPTER  
**Lizanne Luchetti**

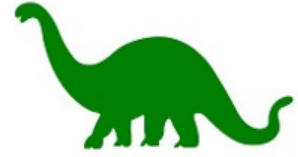
ROCKET CITY CHAPTER  
**Dan Meadows**

SAFE EUROPE - CHAIR  
**Sarah Day**

MIDDLE EAST CHAPTER  
**Mohanad Alakal**

# Calling all Dinosaurs!

By Al Loving, SAFE Executive Advisor and Interim Chief Dinosaur



As most of you know, the once popular Order of Life Support Dinosaurs (OLD) Club has been inactive since the 1998 timeframe. However, there is renewed interest in reactivating the OLD Club which is also affectionately referred to as the “Dino Club”.

For the benefit of our “Younger Dino” readers - a bit of Dino Club history. The Dino Club was an informal organization that was established at Wright Patterson AFB, OH in 1985 based on an idea formulated by Past SAFE Presidents Alva Karl and Dick Adkins.

The idea of the Dino Club was to recognize those individuals who had served at least 25 or more years within the Life Support Systems professions and community. Membership was comprised of all services, civilian and military, as well as members of industry. It included the Life Support Systems, Egress Systems, Oxygen Systems, Program Management, Engineering and other related Aircrew Protection professions.

Past President Al Karl, followed through with establishing the Club which included a formalized membership application process, a membership certificate and a Master Roster of members. The roster indicates that on December 11, 1985 Dick Adkins was the first of 171 total OLD members. However, no record of members is available after August 26, 1998.

Membership dues of \$10 per member were established to cover expenses such as certificates, lapel pins, and so forth. An individually numbered Membership Certificate was presented to each new member along with lapel pins to recognize each OLD member and their spouse. A periodical, The Dinosaurs Den, was also published and distributed to Club members.

Additionally, the Chief Dinosaur hosted a Club member and spouse luncheon at the annual SAFE Symposium which was independently funded thru donations and sponsorships. The luncheon was included in the Annual SAFE Symposium Program.

With that said, and with the blessing of the SAFE Board of Directors, we seek to continue the tradition. To that end, we will hold an OLD Club Reactivation Interest Lunch Meeting during the upcoming 60th Annual SAFE Symposium. This year’s symposium is being held November 1-3, 2022, at the Arthur R. Outlaw Convention Center in Mobile, AL. The purpose of the meeting is to gather on-site interest and feedback in reactivating the Dino Club from current and eligible OLD members in attendance.

For the purposes of this meeting, OLD Club membership eligibility is those individuals who had served at least 25 or more years within the Life Support Systems professions and community. Membership was comprised of all services, civilian and military, as well as members of industry. It included the Life Support Systems, Egress Systems, Oxygen Systems, Program Management, Engineering and other related Aircrew Protection professions.

The meeting is tentatively scheduled for Noon on Wednesday, November 2, 2022. Additional details will be included in the 2022 SAFE Symposium Program. All current and eligible OLD members in attendance are asked and encouraged to attend the Meeting so we can gauge the level of interest in reactivating the OLD Club.

For those current and eligible OLD members who are not able to attend the upcoming annual symposium, your interest and feedback in reactivating the OLD Club can be provided electronically to the SAFE Executive Advisor and Interim Chief Dinosaur, Al Loving, at:

Email: [aloving@cox.net](mailto:aloving@cox.net)

Mobile Phone: (757) 218-8560

Please provide your electronic feedback to Al **no later than October 30, 2022.**

We look forward to seeing you in Mobile in November 2022 to help celebrate our 60th Annual SAFE Symposium.



## SAFE 2022 YTD Treasurer's Report

by Steven Bromley, 2022 Treasurer

Steven Bromley reported that the SAFE Association's operating income for 2022, as of June 2022, was \$74,630, with operating expenses of \$11,428, for a net income of \$63,202. This is consistent with past organizational financial trends, as the association prepares for the SAFE 2022 Symposium. Our total assets currently exceed \$565,369. The first half of 2022 was very positive as we remain on budget for the year. We look forward to seeing everyone in Mobile to celebrate the SAFE Association's 60th year in operation!

## Human Factors/Human Systems News

**Human Systems Community of Interest Newsletter Released in August 2022:** Dr. Ben Petro (Director, Human Systems) has been replaced at OSD (R&E) by Mr. Michael Holthe (Director of Emerging Technologies). Dr. Petro is now Director of Laboratories, FFRDCs and UARCs within S&T Foundations at OUSD(R&E).

**Human Factors and Ergonomics Society (HFES)** will hold its annual meeting in Atlanta, GA on October 10-14, 2022. The SAE International G-45 HSI Committee will hold a two-hour meeting on 12 October 2022.

**DoD Human Systems Capability-based Assessment GAPS:** Five GAPS were defined in 2018: On 14 July 2022, the Joint HSI Working Group decided to reclassify two of the Gaps as "sustaining," meaning that the gap is essentially closed and the DoD is taking longer-term actions to keep them closed.

- Gap 1 - HSI Body of Knowledge (JHSISC recommended transition to "sustainment")
- Gap 2 - HSI Standards and Best Practices
- Gap 3 - HSI Workforce Development
- Gap 4 - HSI Tools and Methods
- Gap 5 - HSI Outreach (JHSISC recommended transition to "sustainment")

**New-ish DoD Policy and Guidance Documents Released on Human Systems Integration:**

- DoDI 5000.95, "Human Systems Integration in Defense Acquisition," Effective April 1, 2022 <https://www.esd.whs.mil/Portals/54/Documents/DD/issuances/dodi/500095p.PDF?ver=C1L4ZM9Wi4Qa4p7JP7EPtA%3D%3D>
- HSI Guidebook (replaces Chapter 5 of the old DoD Defense Acquisition Guide (DAG) [https://ac.cto.mil/wp-content/uploads/2022/06/HSI\\_Guidebook\\_May2022-Cleared.pdf](https://ac.cto.mil/wp-content/uploads/2022/06/HSI_Guidebook_May2022-Cleared.pdf)

## Reminder: SAFE Association Benefits!

### INDIVIDUALS

- Quarterly SAFE Newsletter
- Proceedings from the SAFE Annual Symposium
- All Symposium-related Mailings
- Reduced Symposium registration cost.
- Access to members only area of the SAFE Association website
- Voting privileges for your SAFE Board of Directors
- Submission information for our Annual Awards Program

### CORPORATE MEMBERS

- Quarterly SAFE Newsletter
- Proceedings from the SAFE Annual Symposium
- All Symposium-related mailings
- Reduced Symposium registration cost.
- Access to members only area of the SAFE Association website
- Voting privileges for the SAFE Board of Directors
- Submission information for our Annual Awards Program
- Corporate listing and description of products and services on SAFE Association website with link to company website.
- Reduced registration and exhibit space fees for the SAFE Annual Symposium
- Free use of the SAFE Newsletter to deliver news releases- such as personnel changes, new products, new office locations, and contact information
- Corporate Membership includes a Primary and Secondary Corporate Representative



Facebook.com/SAFEAssociationUSA

June 21, 2022  
Joint Base Lewis-McCord

On Tuesday June, 21, 2022, elements of the U.S. Army Special Operations Aviation Command (USASOAC) conducted a live overwater training event at Joint Base Lewis-McCord (JBLM). USASOAC utilizes LSI's HARD-20 system during any overwater mission. The HARD-20 is a unique 20-Man life raft system, designed to give total protection of an on-board life raft, for either self-survival or rescue purposes. The concept was initially designed by LSI in conjunction with USASOAC for use on MH-47 Chinook configurations, and has been in use for over 15 years. LSI was tasked by USASOAC to design a system for use in the most demanding environment without interfering with critical overwater operations - resulting in the HARD-20; a life raft system so unique yet simple in design, featuring a rugged hard shell canister, vacuum packed 20-Man life raft, single-point release harness, multiple deployment modes, easily transportable, minimal to no maintenance and 3 year service cycle. The HARD system significantly increases the survivability of the aircrew, adds mass casualty rescue capability as well as provides significant return on initial investment with the added protection to the raft, decreased maintenance, and increased Service Life. Since the initial design and fielding efforts, the HARD-20 system has been upgraded to include either the legacy LRU-15 raft or the new MPLR-20 raft. Additionally, the HARD-20 can be easily modified to suit a variety of airframe environments, either helicopter or fixed-wing requiring multi-place life rafts to conduct overwater flight operations.

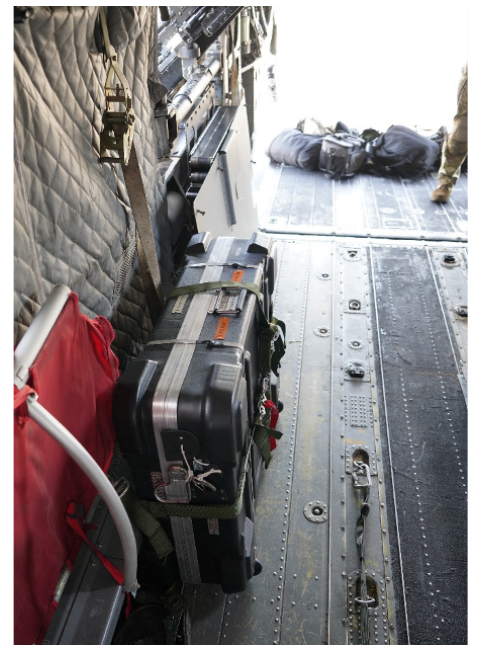
LSI relationship with USASOC was established more than 20 years ago via SAFE Association annual conference in Reno,



NV. Representatives from both organizations met and discussed problems with 160th SOAR(A) existing liferaft inventory stored in fabric bags getting damaged and storage locations inconvenient for mission readiness. LSI set out to design the HARD systems for a variety of storage locations and missions on board 160th MH-60 & MH-47 helicopters.

On this day, USASOAC tested the HARD-20 Liferaft System using the Static Line method of deployment by airdropping the HARD-20 into the water at an altitude of 10 feet and forward airspeed of 10 KIAS. In order to verify the ruggedness of the system, the HARD-20 selected for this live event had been used in the field for over 3 years, flown on numerous missions, and was due to be turned in for periodic service/inspection. The HARD-20 system performed flawlessly and the test proved the durability of the system, that multiple methods of deployment are available, and in a Manual deployment mode, that the system actually floats on its own prior to deployment/activation of the life raft.

LSI is proud to support the elite aircrew and support teams of USASOAC, who's mission is to organize, equip, train, and employ Army special operations aviation



forces worldwide in support of contingency missions and warfighting commanders. The professionalism and capabilities of Army special operations aviation are developed through a "train as you fight" mentality. This extensive, realistic training is the foundation of unit combat readiness.

Furthermore, LSI is grateful to the SAFE Association for providing a venue for equipment manufacturers and customers to meet and discuss current issues related to safety & survival. (Pictures continued on page 11.)



# SOCIAL MEDIA

Hello Everyone!

The SAFE Social Media Team is looking to follow all SAFE members, Companies and current followers. We want to be able to keep up to date with your company's posts to support our community. If your company wishes to be followed by the SAFE Social Media (Twitter, Facebook, Instagram, etc.), please contact Lauren Divers at [Lauren@proflightgear.com](mailto:Lauren@proflightgear.com)

As always, stay SAFE and we look forward to seeing you-all at this year's Symposium!

Let me know if you need anything or have any questions!

Best,  
Lauren Divers  
SAFE Info Mgmt Committee Co-Chair

## UP-COMING MEETING

### MEETING

60th Annual Symposium

### DATE

November 1 - 3, 2022

### LOCATION

Mobile, AL



# To Boldly Go Where No TSR PRO Has Gone Before

DTS is proud to announce that a DTS TSR PRO data logger is traveling beyond the moon onboard Artemis 1, to help capture vital acceleration and vibration data that can help improve astronaut safety on the upcoming crewed mission, Artemis II.

Space, the final frontier... now, as we reach further into space, exploring that “final frontier” is no longer an if, but a when. NASA’s Artemis program developed to return us to the moon and beyond, we are that much closer to glimpsing more of what is ‘out there.’

Artemis 1, crewed by a manikin, successfully launched on (DATE TO BE CONFIRMED) and is a mission of testing new technologies. The new technologies include the Space Launch Rocket (SLS) system, the most powerful rocket in the world. According to NASA:

The crew is expected to experience 2.5 times the force of gravity during ascent and four times the force of gravity at two different points during the planned reentry profile. Engineers will compare Artemis I flight data with previous ground-based vibration tests with the same manikin, and human subjects, to correlate performance prior to Artemis II.

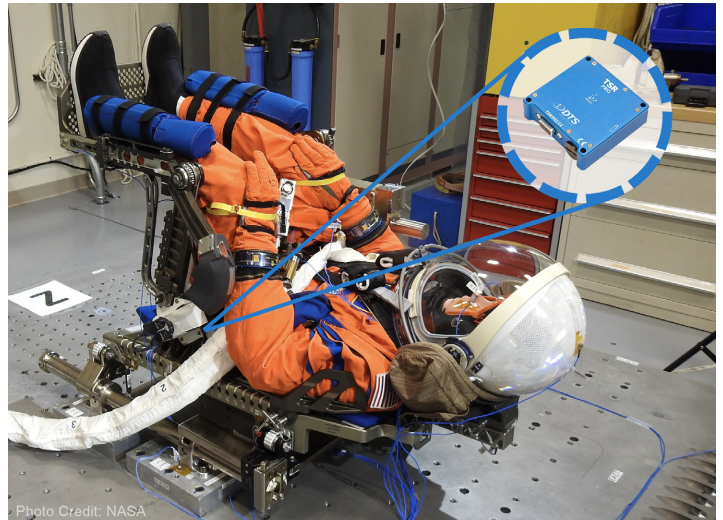
To help gather this data, the manikin’s seat is outfitted with two sensors designed to record acceleration and vibration data during the mission. The DTS TSR PRO data logger, one of the sensors onboard, is triggered to record when the hatch door closes. The vital data this accelerometer captures will help NASA with astronaut safety on Artemis II, the first scheduled crewed mission of the Orion spacecraft set for 2024.

“It’s critical for us to get data from the Artemis I manikin to ensure all of the newly designed systems, coupled with an energy dampening system that the seats are mounted on, integrate together and provide the protection crew members will need in preparation for our first crewed mission on Artemis II,” said Jason Hutt, NASA lead for Orion Crew Systems Integration.

The DTS TSR PRO is a compact rugged data logger that makes it easy to measure acceleration forces in extreme test environments such as rocket launches, space flight, and splashdowns. The data logger has a built-in data recorder and sensors and is self-powered for unattended monitoring of acceleration and vibration. When the hatch door of the capsule closes it triggers the TSR PRO to begin recording to capture that key data which can help contribute to astronaut safety on future missions.

Congratulations NASA on this historical enterprise. It is an honor that DTS data acquisition systems and sensors have been trusted by NASA for more than 3 decades of aerospace testing.

Visit [www.dtsweb.com](http://www.dtsweb.com) to learn more.



## Resources

1. <https://www.nasa.gov/feature/purposeful-passenger-artemis-i-manikin-helps-prepare-for-moon-missions-with-crew>

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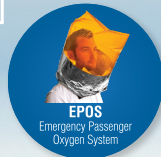


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