



**DEMA 2022**

Seminars and Schedule

BOOTH #1525



Friends,

For 46 years the DEMA Show has been a cornerstone annual event for the dive industry. We are excited to be back with our members and fellow industry professionals once again to connect over our shared love of diving.

Throughout the past few years the people of this industry demonstrated exceptional dedication, perseverance, and adaptability. For our part, we've continued to develop new safety, training, and educational content to keep you, your dive business, and your customers safe and informed.

Now reunited, we are eager to collectively look ahead to a great year for the dive industry.

Enjoy these engaging seminars, and have a great week.



A handwritten signature in blue ink that reads "Bill Ziefle".

Bill Ziefle  
President & CEO  
Divers Alert Network



# DIVE EMERGENCY RESPONSE DAN

## TUESDAY, NOVEMBER 1

	TIME	ROOM
Challenging Diving Injury Cases	8am–9am	220D
Quality Limits for Safe Breathing Gases	9am–10am	220D
DAN Research Update for the Technical Diver	10am–11am	220D
Medical Services Annual Report	11am–12pm	220D
Polar Diving: Physiological and Operational Adaptations	12pm–1pm	220D
DAN Examiner Update	1pm–1:45pm	220D
Dive Professionals: Enhance Your Teaching With Additional DAN E-Learning Courses	2pm–2:45pm	220D
DAN Instructor/IT Update	3pm–3:45pm	220D

## WEDNESDAY, NOVEMBER 2

	TIME	ROOM
We Are What We Eat; Does Diet Impact Your Diving?	8am–9am	220D
Medical Epidemiological Research	9am–10am	220D
Diving Injuries in Minors	10am–11am	220D
The DAN HIRA Dive Safety Program	11am–12pm	220D
Bubble Dynamics From Sea to Space	12pm–1:00pm	220D
Instructor/IT Update	1pm–1:45pm	220D
Environmental Stewardship for Dive Professionals and Operators	2pm–2:45pm	220D
Dive Professionals: Enhance Your Teaching With Additional DAN E-Learning Courses	3pm–3:45pm	220D

## THURSDAY, NOVEMBER 3

	TIME	ROOM
Quality Limits for Safe Breathing Gases	8am–9am	220D
DAN Research Update for the Technical Diver	9am–10am	220D
Upgrade Workshop (Day 1 of 1)	9am–5pm	220E
DAN Instructor Qualification Course and Instructor Trainer Workshop (Day 1 of 2)	9am–5pm	220E
Medical Services Annual Report	10am–11am	220D
Challenging Diving Injury Cases	11am–12pm	220D
Polar Diving: Physiological and Operational Adaptations	12pm–1pm	220D

## FRIDAY, NOVEMBER 4

	TIME	ROOM
Medical Epidemiological Research	8am–9am	220D
Diving Injuries in Minors	9am–10am	220D
DAN Instructor Qualification Course and Instructor Trainer Workshop (Day 2 of 2)	9am–5pm	220E
The DAN HIRA Dive Safety Program	10am–11am	220D
We Are What We Eat; Does Diet Impact Your Diving?	11am–12pm	220D
Bubble Dynamics From Sea to Space	12pm–1pm	220D

## TUESDAY, NOVEMBER 1

### Challenging Diving Injury Cases

**Matias Nchetto, MD**

NOV 1 ▶ 8AM

Some of the cases managed by DAN Medical Services present with diagnostic conundrums, confounding factors, and other medical challenges. We'll examine some of these interesting cases and share the sometimes unexpected outcomes.



### Quality Limits for Safe Breathing Gases

**Francois Burman,  
PrEng, MSc**

NOV 1 ▶ 9AM

Our air quality standards have remained static over the years while air production systems have improved and our knowledge of the impact of contaminants on the diver has increased. It is time to re-evaluate what makes sense and establish recommendations for safe breathing gas for the scuba diver.

### DAN Research Update for the Technical Diver

**Frauke Tillmans, PhD**

NOV 1 ▶ 10AM

Have you suffered a caustic cocktail before? Are you wearing a fitness tracker or smart watch? Have you ever seen or listened to your heart after diving? This seminar will provide an overview of DAN's recent research with technical divers and will discuss caustic cocktail first aid and new sensor technologies for physiological monitoring as well as their benefits and limitations.

### Medical Services Annual Report

**Camilo Saraiva, MD, MBA**

NOV 1 ▶ 11AM

In this presentation we'll bring data from DAN's operations to the audience and discuss possible inferences and knowledge we can take from them to rethink our own safety when diving.



### Polar Diving: Physiological and Operational Adaptations

**Michael Lang, PhD**

NOV 1 ▶ 12PM

Polar diving is emerging and increasingly accessible as an adventure diving activity for recreational divers. Thermal protection strategies and under-ice life support equipment performance demand consideration when submerged in -2°C ice water. Logistics for remote diving operations in the Arctic and Antarctica require unique elements of dive planning for enjoyment and diving safety.

**DAN Examiner  
Update (for active  
DAN Examiners)  
Jim Gunderson**

NOV 1 ► 1PM

This Examiner Update will cover Version 3.0 rollout information and the current status of DAN courses. We'll inform Examiners about all changes to the training programs for 2023 along with other pertinent information about DAN First Aid Training. Other Examiner-level topics will also be discussed.

*This presentation is for current DAN Examiners only.*

**Dive Professionals:  
Enhance Your Teaching  
With Additional DAN  
E-Learning Courses**

**Jim Gunderson**

NOV 1 ► 2PM

This presentation will inform those in attendance about how to invite, monitor, and enhance your students' learning with DAN e-learning courses. We will cover what the program entails, how it can benefit your current teaching models, and how to access this program.

**DAN Instructor  
Update (for DAN Instructors  
& Instructor Trainers)  
Jim Gunderson**

NOV 1 ► 3PM

This Update will cover Version 3.0 rollout information and the current status of DAN courses. We'll inform Instructors and Trainers about all changes to the training programs for 2023 along with other pertinent information about DAN First Aid Training.

*This update is open to all DAN Instructors, Instructor Trainers, and Examiners.*





## WEDNESDAY, NOVEMBER 2

### We Are What We Eat; Does Diet Impact Your Diving? Frauke Tillmans, PhD

NOV 2 ▶ 8AM

Although we eat every day, we often don't understand what we eat and how it effects our well-being. How many calories does one need, how much water is healthy, and what is there to know about different diets or supplements?

In this seminar we will establish basic knowledge about nutrition and discuss the published science on how some food groups or diets could potentially impact your diving.

### Medical Epidemiological Research

**Camilo Saraiva, MD, MBA**

NOV 2 ▶ 9AM

We'll present to the audience our preliminary results and possible avenues we are exploring based on the data analysis of our almost 500,000 calls taken in the past 40 years.

### Diving Injuries in Minors

**Matias Nchetto, M.D.**

NOV 2 ▶ 10AM

We'll review injuries to minors reported to the DAN Emergency Hotline and general concerns and considerations for dive professionals when diving with children.



### The DAN HIRA Dive Safety Program

**Francois Burman,  
PrEng, MSc**

NOV 2 ▶ 11AM

The need for safe diving practices is greater now than ever before, as major accidents continue to occur every year. In 2017 DAN introduced a program to help dive professionals and businesses improve safety and prevent accidents. This program has developed to reach a broader audience and offers a wider range of risk management tools.

### Bubble Dynamics From Sea to Space

**Michael Gernhardt, PhD**

NOV 2 ▶ 12PM

This presentation will focus on decompression and bubble dynamics, with the theme of how subsea and altitude decompression are related, and how data from each environment increase our understanding of decompression stress.

**DAN Instructor Update (for DAN Instructors & Instructor Trainers)**

**Jim Gunderson**

NOV 2 ▶ 1PM

This Update will cover Version 3.0 rollout information and the current status of DAN courses. We'll inform Instructors and Trainers about all changes to the training programs for 2023 along with other pertinent information about DAN First Aid Training.

*This update is open to all DAN Instructors, Instructor Trainers and Examiners.*



**Environmental Stewardship for Dive Professionals and Operators**

**Christine Tamburri**

NOV 2 ▶ 2PM

Dive operators and professionals can be stewards of the environment every day. It is important to note that protecting the environment is not an individual effort, but rather a series of goals that can only be achieved through the commitment of the entire dive industry.

**Dive Professionals: Enhance Your Teaching With Additional DAN E-Learning Courses**

**Jim Gunderson**

NOV 2 ▶ 3PM

This presentation will inform those in attendance about how to invite, monitor, and enhance your students learning with DAN e-learning courses. We will cover what the program entails, how it can benefit your current teaching models, and how to access this program.

## THURSDAY, NOVEMBER 3

**Upgrade Workshop Day 1 of 1** Pre-registration Required

**Jim Gunderson**

NOV 3 ▶ 9AM to 5PM

The Upgrade Workshop will include requirements and skills development to become a Version 3.0 DFA Pro, BLS, and EO2 Instructor. Pre-registration is required! There is no cost for this workshop.

**DAN IQC/ITW Day 1 of 2** Pre-registration Required

**Jim Gunderson**

NOV 3 ▶ 9AM to 5PM

This course is open to anyone who meets the requirements to become a DAN Instructor or Instructor Trainer. This 2-day course is open to dive professionals who wish to become a DAN Full-Suite Instructor (Version 3.0) and DAN Instructors who meet the prerequisites who wish to become a DAN Instructor Trainer. Pre-registration is required! There is a cost for this workshop. Space is limited.

## FRIDAY, NOVEMBER 4

**DAN IQC/ITW Day 2 of 2** Pre-registration Required

**Jim Gunderson**

NOV 4 ▶ 9AM to 5PM

This course is open to anyone who meets the requirements to become a DAN Instructor or Instructor Trainer. This 2-day course is open to dive professionals who wish to become a DAN Full-Suite Instructor (Version 3.0) and DAN Instructors who meet the prerequisites who wish to become a DAN Instructor Trainer. Pre-registration is required! There is a cost for this workshop. Space is limited.

**NOTE: ALL FULL-DAY WORKSHOPS HELD IN ROOM 220E**

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 DAN  
SPEAKER BIOS**Francois Burman, PrEng, MSc**

is the Vice President of Safety Services at DAN. He is responsible for all of DAN's safety and accident-prevention initiatives as well as the recompression chamber network. He has traveled around the world to conduct safety assessments at facilities used to treat injured divers and has written two books: *The Risk Assessment Guide for Dive Operators and Professionals*, and *The Risk Assessment Guide for Recompression Facilities*.

**Matias Nocetto, MD**

is the Vice President of Medical Services at DAN, where he has worked since 2006. He is co-director of the DAN-UHMS continuing medical education program and a faculty member of several national and international diving medicine courses and programs. He became a dive instructor (1999) during medical school, which led him to complete a three-year clinical and research fellowship in hyperbaric and diving medicine to combine the two passions.

**Jim Gunderson**

is a member of the Safety Services team and Director of Training at DAN. Jim's diving career began in 1986 in his hometown of Casper, Wyoming. He holds degrees in marine science from the University of Hawaii at Hilo and in psychology from the University of Wyoming. He holds scuba certifications from PADI and NAUI and has an inactive AAUS rating. Jim is a NAUI Course Director Trainer and a DAN Examiner.

**Camilo Saraiva, MD, MBA**

is the Director of Medical Services at DAN. He is board certified in radiation oncology and hyperbaric medicine and is a former director of the Brazilian Hyperbaric Medical Society. Dr. Saraiva is a member of the Undersea and Hyperbaric Medical Society and the American College of Healthcare Executives. A former cave diver, he has been a PADI divemaster since 2000.

  
**GUEST SPEAKER BIOS****Christine Tamburri**

is the Risk Mitigation Coordinator at DAN. An avid cave diver, she graduated from Penn State University in 2020. After deciding that a full-time job in the dive industry was her calling, she became a summer intern at DAN. Later that year, she was hired into her current role where she designs risk assessment tools for dive operators and professionals, develops e-learning courses, and assists first aid instructors worldwide.

**Frauke Tillmans, PhD**

is the Research Director at DAN. She has a degree in human biology and a PhD in oxidative stress, a condition associated with acute diving injuries. Dr. Tillmans is an experienced public safety diver, scientific diver, and dive safety officer. She has worked as a researcher in global collaborative projects focused on decompression stress, inert gas narcosis, and oxygen toxicity and was employed by the German Navy before she began working at DAN in 2019.

**Michael Gernhardt, PhD**

is a former NASA astronaut and professional deep-sea diver currently serving on the DAN Board of Directors. Gernhardt holds a B.S. in Physics, and M.S. and PhD in Bioengineering. While at NASA for nearly 30 years, Gernhardt logged over 43 days in space, with a combined total of more than 23 hours of spacewalks. He is also the founder of Oceaneering Space Systems, which has provided NASA and the U.S. Department of Defense with space flight hardware systems and equipment for more than 35 years.

**Michael Lang, PhD**

is an expert consultant and international lecturer with extensive experience training scientific, recreational and commercial divers. He holds a degree in Marine Biology and a PhD in Environmental Physiology. The recipient of multiple awards and honors as well as induction into the Diving Hall of Fame, Lang continues to work in the development and use of new technologies for working safely underwater in extreme and remote environments. He currently sits on the Board of Directors for Divers Alert Network.





6 West Colony Place  
Durham NC 27705 USA  
+1-919-684-2948

**DAN EMERGENCY HOTLINE**  
+1-919-684-9111

**MEMBER SERVICES**  
+1-800-446-2671

**CUSTOMER SERVICE OUTSIDE  
THE U.S. AND CANADA**  
+1-919-684-2948

**WEBSITE**  
[DAN.org](http://DAN.org)

**EMAIL**  
[danpros@dan.org](mailto:danpros@dan.org)

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