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84th International Conference on Mass Properties

May 18–23, 2025

The Clyde Hotel, Albuquerque, New Mexico USA

Conference Announcement





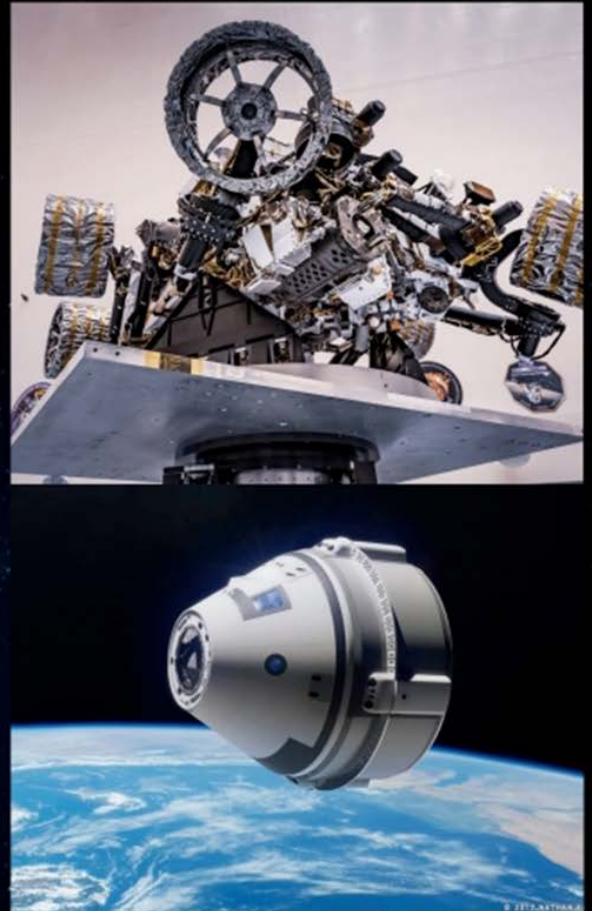
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Conference



SAWE President's Welcome



Robert Hundl
International SAWE President
Fluor Corporation

On behalf of the Society of Allied Weight Engineers I want to extend a cordial invitation to our 84th Annual International Conference being held in-person in Albuquerque, New Mexico. Our conference planning committee has assembled a great line up of topics and papers for you. Here is a sample of the many benefits you will receive by joining us:

- Learn about today's latest technologies, techniques, and programs.
- Participate in development and updates of mass properties industry standards.
- Experience problem solving in forum discussions.
- Take advantage of training opportunities taught by experts.
- Meet vendor representatives and get acquainted with products essential to our jobs.
- Talk informally with customers, competitors, and suppliers.
- Review development of the new Mass Properties Engineer Certification Program.
- Learn first-hand about the latest SAWE activities and programs.

SAWE's technical sessions, standards and practices workshops, and forum discussions address the many needs of our members across the military aircraft, commercial aircraft, airline, space, marine, offshore, land vehicles, and allied industries represented by our society.

The conference is designed to enhance your knowledge and technical capabilities in a comfortable and fun atmosphere. At our conference you will be rewarded with a valuable experience, renewing, and strengthening your understanding of mass properties, and improving your abilities to generate top performance products in a safe, efficient manner.

We look forward to seeing you there!

Make plans now to join us in Albuquerque!

If you need guidance for discussing conference attendance with your sponsoring management, visit our website at: [Conference Attendance Tips](#).



Conference Chairs' Welcome



Errol Oguzhan
Conference Co-Chairman
Lockheed Martin Corporation



Chris Wandell
Conference Co-Chairman
SAWE Senior Vice President
Northrop Grumman Corporation

Our SAWE Conference Committee is excited to host this year's 84th International Conference on Mass Properties Engineering. This is the first ever SAWE International Conference in beautiful Albuquerque, New Mexico. Our Conference Committee and the International Executive Committee are committed to providing an outstanding program of technical sessions, Standards & Practices workshops, training, and fun conference events for all attendees.

This year's conference is at the Clyde Hotel in downtown Albuquerque, New Mexico. The hotel is only a few minutes away from shopping, restaurants, and entertainment. There is an indoor restaurant and lounge, and a café serving locally sourced food all conveniently located on the hotel property. The hotel also has a rooftop swimming pool and 24-hour gym facilities.

The technical content for the conference is designed to provide an important exchange of information that can help you improve the efficiency and precision of your work and gain innovative ideas from experts and peers in the mass properties discipline. We wholeheartedly believe that the technical content and exchange of information between practicing engineers and vendors provided during this conference justifies your organization's investment in time and resources to enable you to attend!

**Help us make this one of the most memorable
SAWE Conferences ever!**

Come to Albuquerque for the 2025 Conference!





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Conference General Schedule

	Sunday May 18	Monday May 19	Tuesday May 20	Wednesday May 21	Thursday May 22	Friday May 23
Morning		National Museum of Nuclear Science and History Tour (Students)	Opening Session & Keynote	Standards & Practices Day Joint Session	Technical Forum	New Mexico Tech Day
Afternoon			Technical Tracks	Industry Workshops	Technical Tracks	
				Luncheon		
			Student Posters	Industry Workshops		
Full Day	Training	Training	Training	Training	Training	
Evening		Welcome Reception			Awards Banquet	

Note: Professional, Retiree, Student and Guest registrations include conference attendance on Tuesday through Thursday, and the Welcome Reception, Luncheon, and Awards Banquet. See **Conference Registration** for details.

Inquiries

Address inquiries regarding our SAWE organization, including membership and sponsorship to:

William Boze
SAWE Executive Director
bill.boze@sawe.org

Address inquiries regarding our SAWE 2025 International Conference to:

Chris Wandell
SAWE Senior Vice President
chris.wandell@sawe.org



Sponsors and Exhibitors



Clint Stephenson
SAWE VP Vendor Relations
The Boeing Company
clinton.d.stephenson@boeing.com

On behalf of the International Society of Allied Weight Engineers, we are proud to welcome our sponsors and exhibitors to the 84th SAWE International Conference on Mass Properties Engineering. During our conference, as an exhibitor, you will have ample opportunities to meet with our attendees to display your products and services and discuss the value of applying these offerings to their mass properties challenges.

Exhibitor space will be available for displaying your solutions around the periphery of the main conference hall on a first come first serve basis, so be sure and reserve your spot as soon as possible. More information on exhibit spaces, exhibit hall provisions, shipping and handling of displays, and fees will be available shortly in our Exhibitor's Packet at [SAWE Conference Sponsor and Exhibitor Info](#).

We highly encourage you to consider partnering with SAWE. Our Corporate Partners and Research Access members receive a free exhibition space as part of their annual membership benefits. Also, Gold Partners receive 6 free conference registration packages, and Silver Partners and Research Access Members receive 2 free registrations. Exhibitors who are not Corporate Partners receive 2 registrations included with their \$2,500 exhibition fee.

Along with your exhibition space and registrations, your company logo will be featured in our online publications and displayed during the conference. You will also have an opportunity to address our attendees during a dedicated time slot during the conference proceedings.

Much more information is available at the link above, or you can reach out to us via email at vendor@sawe.org.

Don't miss this great opportunity to share your solutions!



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Technical Program



Amanda Cutright
SAWE VP Technical Director
NASA Langley



Robert Zimmerman
SAWE Deputy VP Technical
Lockheed Martin - Retired

The Society of Allied Weight Engineers has been promoting the exchange of technical information about Mass Properties Engineering since 1939. As we enter our 84th year of holding International Conferences, SAWE welcomes those engineers who have created new technical information to exchange, and those who will be learning about these technical advances. SAWE brings mass properties professionals from around the globe together to partake in a meaningful interchange of ideas during two days of Technical Tracks encompassing the full spectrum of Mass Properties Engineering.

The annual SAWE conference is an opportunity for mass properties professionals to interact and share information that is vital to excellence in mass properties prediction, control, and verification. Plan on attending our technical sessions where professional and student authors will present their papers and posters, and you will have the opportunity to meet your colleagues in-person from literally around the world.

The 2025 Conference also includes our annual Technical Forum. This year's Forum will feature an investigation and open discussion of Artificial Intelligence and Machine Learning in Mass Properties Applications.

Plan to join us this year in Albuquerque!



A list of papers and presentations planned for this conference are:

No.	Title & Authors
3815	Defending Mass Properties R. Zimmerman - Lockheed Martin (Retired)
3816	Empowering Mass Properties Engineers with Artificial Intelligence: Transforming Estimation, Analysis, and Optimization W. Boze - HII (Retired)
3817	Mass Property Data Checking for On-Shore Modular Construction R. Hundl, J. Robertson - Fluor
3818	Structural Weight Estimation of Naval Surface Combatants Using SAWE Handbook Ratiocination H. Tomaszek, et al. - NAVSEA
3819	The Impact of Vertical Test Weight Movements on the Shipboard Inclining Experiment A. Bryden, R. Dvorak - NAVSEA
3821	Developmental Aircraft Design: Quantifying Weight Maturity to Calculate Retired and Remaining Developmental Weight Growth R. Aman – Lockheed Martin, M. Gray - USAF
3822	Enabling Digital Transformation in Weights Management: A Unified Data Model for Industry-wide Integration M. Beyer – Beyer Flight Sciences
3823	Agile RIO Management: Best Practices for Vehicle Development M. Beyer – Beyer Flight Sciences

No.	Title & Authors
3825	Moving Mass Coaxial Monocopter: Design, Simulation and Control D. T. A. Nguyen, et al.- New Mexico Tech
3826	A Non-Conservative Assessment of the Feasibility of a Solar-Powered Airship for Mars Y. Pozhanka, M. Hassanalain - New Mexico Tech
3827	Dynamic Mass-Aware Trajectory Tracking of Airships Using Multi-Actors Proximal Policy Optimization R. Liang, et al.- New Mexico Tech
3828	Biomimetic Swimming Taxidermy Duck Robot: Design, Development, and Testing D. Vosbein, et al.- New Mexico Tech
3829	Bio-Inspired Innovations: Exploring the Aerodynamic Impacts of Wing Coloration, Shape, Mass, and Spacing in Flight Efficiency N. Bagheri, et al.- New Mexico Tech
3830	Integrating Taxidermy into Drone Engineering: A Mallard-Based Flapping-Wing Aerial System D. Vosbein, et al.- New Mexico Tech
3831	Mass-Dependent Thermal and Mechanical Responses in Bio-Inspired Carbon Fiber Epoxy Wings for Aerial Vehicles N. Bagheri, M. Hassanalain - New Mexico Tech
3832	Bio-Inspired Group Avian Flight: Exploring the Aerodynamic Impacts of V-Formed Flight in Flight Efficiency N. Bagheri, M. Hassanalain - New Mexico Tech

Continued next page...



No.	Title & Authors
3833	Design of Ground Systems; Path Planning of Autonomous Advanced Designed Robots in Underground Mine N. Bagheri, et al. - New Mexico Tech
3834	Numerical Approach Based on Cuboid Splitting to Calculate the CG Shift of a Liquid Filled Container Resulting from Rotations Marvin Siewert - Airbus Operations GmbH
3835	Vibration Characterization for Active Damping in a 2U CubeSat Payload for Rocketry Applications Ellen Froelich – University of Minnesota: Twin Cities

No.	Title & Authors
	More to come...

Stay tuned for more details as they become available!



Technical Forum

SAWE is proud to present our Technical Forum this year:

Opportunities for Artificial Intelligence and Machine Learning in Mass Properties Applications

Moderator: Amanda Cutright, SAWE VP – Technical, NASA Langley

At this Technical Forum during the SAWE 84th International Conference, a panel of individuals from across multiple industries will discuss their experience with using Artificial Intelligence and Machine Learning (AI/ML) for projects with benefits to the mass properties discipline. Relevant experiences will be shared about topics such as generative design, deep learning, and potential future applications including examples from the marine and space industries. During this session, the audience will have time to engage in the discussion, so please join us on Thursday, May 22, 2025, and bring your questions about AI/ML opportunities for mass properties!





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For more info visit our store at
<https://www.sawe.org/product-category/publications/textbooks>





Opening Session Speaker



Dr. Thomas A. Spencer
Director of Engineering and Technical Management
Kirtland Air Force Base

Dr. Thomas A. Spencer, a member of the Senior Executive Service, is the Director of Engineering and Technical Management, Air Force Nuclear Weapons Center, Kirtland Air Force Base, New Mexico. Dr. Spencer is responsible for technical policy, independent validation of nuclear certification, cybersecurity

assessment, and the oversight of center test and evaluation activities, ensuring technical supremacy and integrity of the center's nuclear weapons systems supporting two legs of the nation's nuclear triad, including intercontinental ballistic missiles, air-launched cruise missiles, gravity bombs, and nuclear command-and-control communications systems.





Standards and Practices Day



Jorge Bes

SAWE VP Standards and Practices

Airbus

SAWE supports mass properties professionals and their customers by making available products such as Recommended Practices, textbooks, and handbooks. The Standards and Practices committee provides a non-proprietary consensus forum for developing these products which make our professional activities more efficient, more consistent,

and more valuable to the professionals of today and tomorrow, as well as more understandable to our customers. This effort is so important that an entire day – Wednesday - is dedicated to it. All are invited to attend, learn more, make your voice heard, and get involved.

The day will begin with a review of the year's progress and future objectives. Then the industry committees will meet in separate break-out sessions for most of the morning. The Standards and Practices Luncheon will follow and feature a keynote speaker. After lunch the industry committees will return to their break-out sessions before reconvening at the end of the day for a short debrief of their day's accomplishments to all.

Six industry committees encompass the breadth of SAWE activities. Each industry committee will meet in a separate break-out session for most of the day. During this time, industry needs and opportunities are reviewed, past progress is reviewed, and future activities are planned. Committees may use the forum to brainstorm or build consensus on a particularly challenging issue. This is also an opportunity to elect committee chairs for the next year. The committees are:

Civil Aircraft – private, commercial, and general aviation aircraft; includes airline operations and piloted/autonomous flight mobility vehicles.

Ground Vehicles – private, commercial, government and military cars, trucks, motorcycles, off-road vehicles, construction equipment, and trains.

Marine – private, commercial, government and military surface vessels and submarines.

Military Aircraft – military fixed wing, rotary wing, and lighter-than-air vehicles; includes remotely piloted/autonomous military aircraft, and modifications to commercial aircraft for military applications.

Missiles & Space – commercial, government and military missiles, launch vehicles, and spacecraft.

Offshore – fixed base, floating and semi-submersible platforms primarily for commercial petroleum exploration, drilling, and production.

The Standards and Practices committee invites all members and visitors to participate and help us improve our profession. You are not required to register for a break-out session. You are not required to join the session that matches your industry, and you are not required to stay all day in one session – you may choose to join one session in the morning and another in the afternoon. We welcome new ideas, new participants, and new contributions.

This is your opportunity to make your voice heard.



Standards and Practices Luncheon Speaker

Dr. Mostafa Hassanalain
Associate Professor of Mechanical Engineering
and Dean's Research Scholar
New Mexico Tech



Dr. Mostafa Hassanalain is an Associate Professor in the Department of Mechanical Engineering and Dean's Research Scholar at New Mexico Tech. He earned his Ph.D. and Master of Science in Mechanical Engineering from New Mexico State. His main research interests are in the fields of autonomous systems, bioinspiration and biomimetics, and drones. Dr. Hassanalain serves as PI and Co-PI of \$7.2 M projects from NSF, NASA, NIOSH-CDC, Alpha Foundation, Sceye Inc., etc. He has authored over 200 peer-reviewed journal and conference publications. In October 2021, 2022, and 2023 he was recognized as one of the Top 2% of Cited Scientists Worldwide. His group's research on Taxidermy Bird Drones has been featured in The New York Times, National Geographic, New York Post, The Washington Post, Reuters, EuroNews, and more reaching an audience of 6 billion people. Dr. Hassanalain serves as faculty advisor for various student chapters at New Mexico Tech, including the Society of Allied Weight Engineers (SAWE), the American Institute of Aeronautics and Astronautics (AIAA), Vex Robotics, NASA Minds, and Lunabotics. Additionally, he oversees the K-12 Drone Program at New Mexico Tech.

Featured Topic: "Unlocking Nature's Secrets: Drones, Biomimicry, and Beyond"

Over millions of years, nature has evolved a wide array of processes, structures, materials, and functions that enhance efficiency. Engineers and biologists have increasingly drawn inspiration from this vast natural repository, seeking to learn from the solutions that biological systems provide. Often, nature offers the most effective answers for developing and optimizing various systems, including those used in aerospace. Natural systems present highly effective solutions to complex challenges in aerospace, such as drag reduction, locomotion, navigation, control, sensing, and design. The expanding field of biomimicry focuses on how engineers can apply these efficient, nature-inspired solutions, refined over millions of years, to modern engineering problems. Today, there is a growing demand for drones with diverse capabilities for both civilian and military applications, and significant interest in developing innovative drones that can autonomously operate in various environments and perform a wide range of missions. Over the past decade, the vast range of applications for drones has attracted considerable attention, driving the development of a variety of drones with different sizes and weights. Depending on their specific missions, drones are equipped with different types of equipment and payloads. The numerous advantages that drones offer have



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Training Program



Darren Gamble
SAWE VP Training
Spirit AeroSystems (Europe)



Dan Rowley
SAWE Deputy VP Training
Northrop Grumman Corporation

The Society of Allied Weight Engineers Training Committee invites you to the 84th Annual International Conference on Mass Properties in Albuquerque and is pleased to offer you the following classes for your professional development. These classes are offered to expand your expertise as a Mass Properties Engineer (MPE), and we hope that many of you will register for classes outside of your area of expertise or industry to broaden your technical capabilities. We hope that after taking these classes, you will emerge more knowledgeable and learn how special the discipline of mass properties engineering is across multiple industries.

This year, the Training Program will take place at The Clyde Hotel or nearby from May 18 through May 22, 2023. The SAWE has a long-proven track record of delivering outstanding training, and we hope that you will enjoy training with us here in Albuquerque.

The list of available classes is shown in the table below. More details regarding instructors, and descriptions of the classes may be found on the following pages.

Training Classes for May 2025

Class	Day	Instructor	Cost
Vendor Weight Control	Sunday, May 18	Rod VanDyk	\$700
Designing the Aircraft of the Future	Sunday & Monday, May 18 –19	Andy Walker	\$1,400
Aircraft Fuel System Calibration	Monday, May 19	Rod VanDyk	\$350
Advanced Mass Properties Measurement	Monday, May 19	Robert Cipolli	\$700
Developing Basic Parametric Methods	Tuesday, May 20	Andy Walker	\$700
Structural Weight Optimization	Tuesday, May 20	Raj Bishnoi	\$700
Aircraft Weight and Balance	Tuesday & Wednesday, May 20 –21	Errol Oguzhan	\$1,400
Automated Weight and Balance System (AWBS) Software	Thursday, May 22	Harold Smoot	\$750



Vendor Weight Control

Rod VanDyk – SAWE Fellow – Safran Landing Systems

This one-day class will discuss the various items included in RP100 Vendor Weight Control for the Aircraft Industry as well as RP 15/M-4 Vendor Weight Control for the Marine Industry. Although some of the acronyms and definitions may vary, these two RPs share many common requirements regarding the data requested from vendors. The course will cover the major sections of the two RPs and provide examples of the sort of data that is required of vendors based on these sections. The instructor presentation will be followed by in-class discussion enabling students to ask specific questions that may address problems or clarification of requirements.

Topics that will be covered include: Introduction and Purpose, Equipment and Supply Chain, Weight Control, Mass Properties Requirements, Weight Reduction Programs, Actual Weighing and Verification, and Weight Reporting. Other topics may be discussed as time permits.

The goal of this course is to introduce you to vendor weight control, detail the different phases and types of deliverables you may be required to produce, and provide guidance on how to achieve these requirements.

Designing the Aircraft of the Future

Andy Walker – SAWE Fellow – Lockheed Martin Aeronautical Systems

This two-day class presents the principles of weight engineering in new Aircraft Design as described in the SAWE Aircraft Weight Engineering Textbook.

Course topics include: Requirements Development, Aircraft Performance, Conceptual Aircraft Design Weight Estimates & Optimization, Weight Trades, Engine Selection, Vendor Weight Selection, Establishing Target Weights, Operational Weight, Preliminary Design Studies, Detail Design and Database Management. The class will use the issues that occur with future trainer aircraft as an example of applied Weight Engineering.

Students attending the class will receive a copy of the Aircraft Weight Engineering Textbook.

Aircraft Fuel System Calibration

Rod VanDyk – SAWE Fellow – Safran Landing Systems

This four-hour class outlines the basic fuel usage process, including how fuel quantities are measured, fuel system calibration techniques, understanding terminology such as usable and unusable fuel, and all aspects of fuel usage that can be determined on the ground.

Mass Properties Engineers are often requested to either participate in or generate a fuel system calibration and verification process for new aircraft in development or for aircraft whose fuel systems have been modified, since it involves having the aircraft supported on scales. This course gives all the pertinent steps to ensure that this process is completed in a safe, successful, and timely manner.



Advanced Mass Properties Measurement

Robert Cipolli – Raptor Scientific

This course provides training in the measurement of moment of inertia, center of gravity, and product of inertia, with emphasis on the various measurement methods used in industry. This class begins with a review of the definitions and continues with the principles of mass properties measurement. Students will learn about the relationship between MOI and POI and receive instruction on the MOI method to determine POI.

Topics include:

- Discussion of balancing applications
 - Sources of measurement error and uncertainty
 - Fixturing best-practices
-

Developing Basic Parametric Methods

Andy Walker – SAWE Fellow – Lockheed Martin Aeronautical Systems

Have you ever been asked to predict the future? With a little information, you can explore the solution space around the problems you encounter on the job as a Mass Properties engineer. The course will cover:

- Parametric estimation and rapid aircraft mass properties assessments.
- Feasibility studies on detail design projects.
- Conceptual trade studies based on very limited information.
- Quantify predictive and descriptive uncertainty around your predictions.
- Calculate the benefits of next generation technologies.

Agenda items will include basic statistical terminology, statistical correlation processes, parametric estimation pitfalls, and a parametric fighter aircraft wing weight correlation example.

Structural Weight Optimization for Mass Properties Engineers

Raj Bishnoi – Altair

This one-day class will enable Mass Properties Engineers to identify and realize weight reduction opportunities through application of finite element analysis based structural optimization. The course will cover the topics key to successful application of structural optimization which include (i) fundamentals of finite element analysis, (ii) fundamentals of structural optimization, (iii) identification of optimization opportunities, (iv) formulation of structural optimization problem, (v) design interpretation, (vi) design validation, and (vii) practical engineering aspects of structural optimization. Classroom instructions on these topics will be consolidated using hands-on exercises.



Aircraft Weight & Balance Course

Errol Oguzhan – SAWE Honorary Fellow – Lockheed Martin Corporation

This two-day course combines classroom and hands-on instruction to demonstrate and teach proper procedures for weighing aircraft and the “pitfalls” that may be encountered during these measurements. A basic knowledge of weight and balance is assumed. This class will also provide the student with an understanding of the weight and balance system used within the United States Air Force and how to properly complete the associated forms.

Students should bring basic calculators, paper, and pens/pencils for use in examples and exercises. Students should also dress appropriately for the trip to the aircraft hangar on day two and wear rubber-soled, closed-toed shoes.

Automated Weight and Balance System (AWBS) Version 11 Software Training

Harold Smoot – SAWE Honorary Fellow – Lockheed Martin

This one-day class focuses on Automated Weight and Balance System (AWBS) Version 11, providing comprehensive instruction through hands-on exercises. It covers detailed explanations of the charts and forms (Chart A, Form B, Chart C, and Form F) mandated by the Joint Service Technical Manual (NAVAIR 01-1B-50, AIR FORCE TO 1-1B-50, COAST GUARD TO 1-1B-50, and ARMY TM 55-1500-342-23) for conducting operational weight and balance of military aircraft. Both new and experienced AWBS users will benefit from the course. The instructor will demonstrate software features, interspersed with exercises designed to enhance student understanding and will also allow time to address specific AWBS needs and questions of the students.

All students are required to bring their own laptop computer running Microsoft Windows 10 or 11 with an approved version of AWBS 11 training software installed. An account on the DoD or Lockheed Martin AWBS Website is also required. Please contact the instructor at harold.r.smoot@lmco.com with any questions or concerns regarding these prerequisites before registering.

All training class attendees will receive a course completion certificate with associated Professional Development Hours (PDH) to assist them in satisfying any professional development requirements they must meet. See **Training Registration** for more information on signing up for these excellent courses.



For more information visit

[SAWE Training](#)

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


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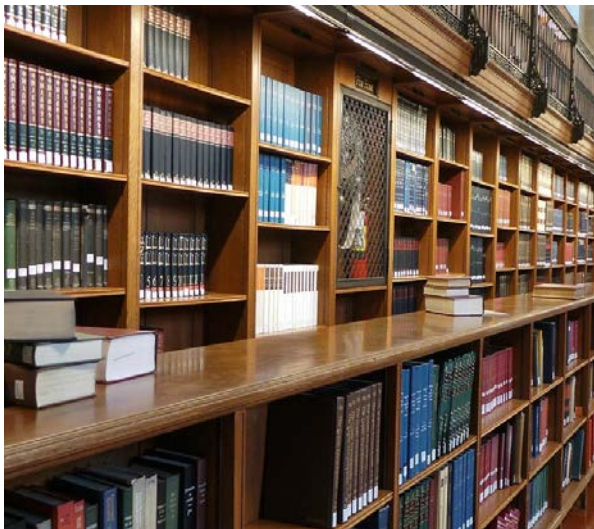


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MassTrack / ShipWeight User Group Meeting



MassTrack



ShipWeight

The 16th MassTrack/ShipWeight User Group meeting will be held on Monday, May 19, 2025, in conjunction with the 84th SAWE International Conference on Mass Properties Engineering (May 18-23, 2025 in Albuquerque, New Mexico). The meeting will be of interest to active users of MassTrack and ShipWeight as well as those who are considering acquiring it.

The meeting is also an opportunity to meet other users in an informal setting for exchanging experiences and discussions on best practices. Last, but not least, it is a great opportunity to provide feedback to the developers and participate in making priorities for future development of the software.

Key Information	
Where	The Clyde Hotel, Albuquerque, New Mexico
When	Monday, May 19, 2025, from 8:30 am – 5:00 pm
Registration	Click Here to Register , and select Training Attendee/ Training Monday 19th or by email office@ba-software.com
Cost	\$30 - Morning and afternoon refreshments will be provided, and lunch will be on your own.
Registration deadline	Per SAWE General Conference Registration

MassTrack/ShipWeight User Meeting – Tentative Schedule*	
May 19, 2025	
8:30 am – 8:40 am	Welcome
8:40 am – 10:00 am	Overview of New Functionality
10:00 am – 10:30 am	Coffee break
10:30 am – 11:30 am	Parametric Estimation
11:30 am – 12:00 pm	MassTrack/ShipWeight Web Solution
12:00 pm – 1:30 pm	Lunch
1:30 pm – 2:00 pm	User Presentation (TBD)
2:00 pm – 3:00 pm	Reports
3:00 pm – 3:30 pm	Coffee break
3:30 pm – 4:30 pm	Handling Configurations, Loading Conditions and Phase Codes
4:30 pm – 5:00 pm	Questions and Answers/Discussions

* We reserve the right to change the agenda.

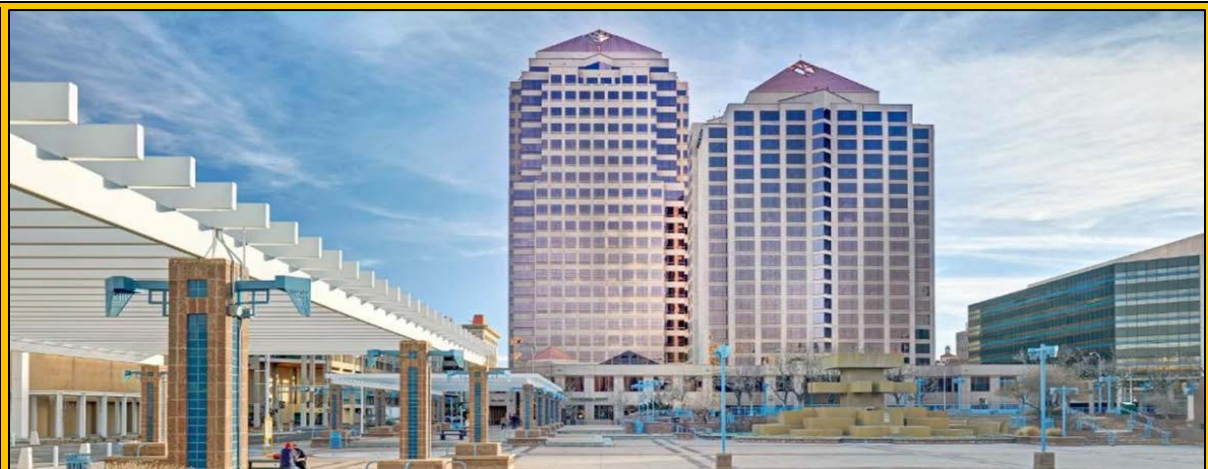


Conference Committee

Position	Name	Affiliation
Co-Chair	Errol Oguzhan	Lockheed Martin Corp.
Co-Chair	Chris Wandell	Northrop Grumman Corp.
Budget/Finance	Fred Brown	HII NNS
Technical Papers	Amanda Cutright	NASA Langley
Student Coordinator	Dr. Donna Gerren	University of Colorado Boulder - Retired
Training Coordinator	Darren Gamble	Spirit Aerosystems
Exhibitor Coordinator	Clint Stephenson	The Boeing Company
Facilities	Bill Boze	HII NNS - Retired
Publications	Alyx Stubbers	Gulfstream Aerospace Corp.
Events Coordinator	Errol Oguzhan	Lockheed Martin Corp.
Registration	Aleni Burcham	US Air Force
IT	Greg Ray	The Boeing Company
Program	Damian Yañez	Gulfstream Aerospace Corp.
Photography	Karla Greg	Northrop Grumman Corp.
Hospitality	Clint Stephenson	The Boeing Company



Hotel Information



The Clyde Hotel

330 Tijeras Ave NW
Albuquerque, NM 87102
505-539-7298

<https://www.clydehotel.com/>

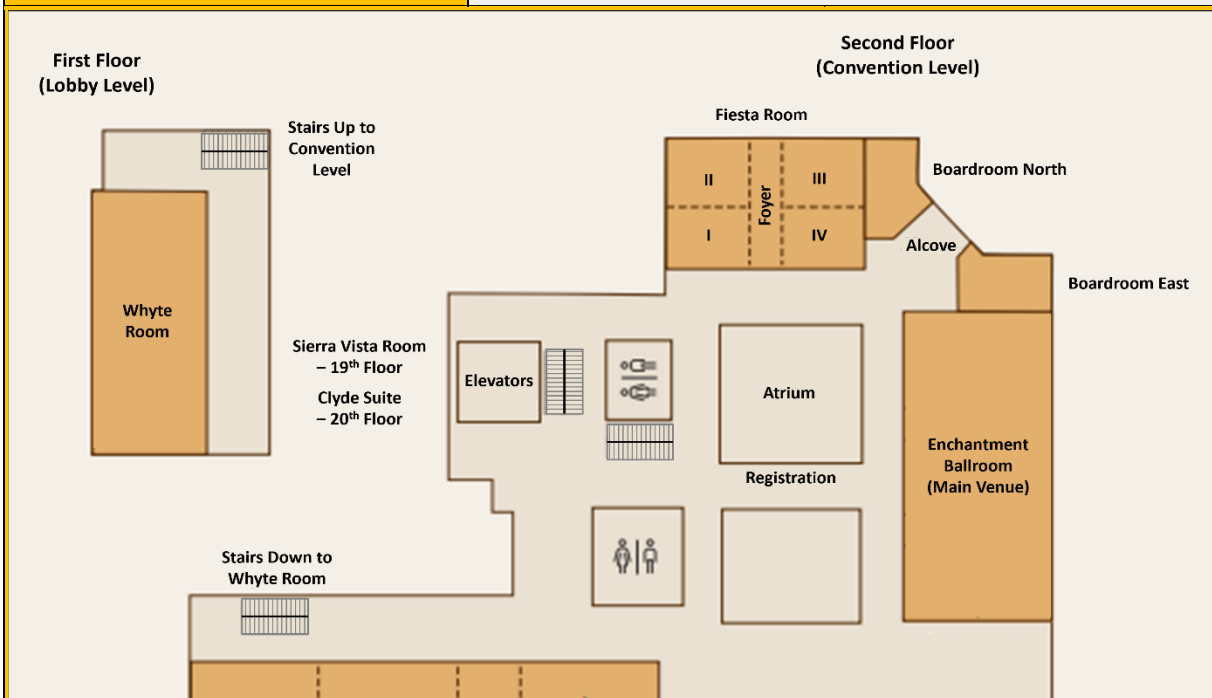
SAWE Room Rate

\$179/night + tax & fees
(available 3 days before & after)

Reservations:

[SAWE Room Block](#)
(Code: 2505INENGs)

Rate guaranteed until
11:59 PM EDT, Apr 18, 2025





Transportation

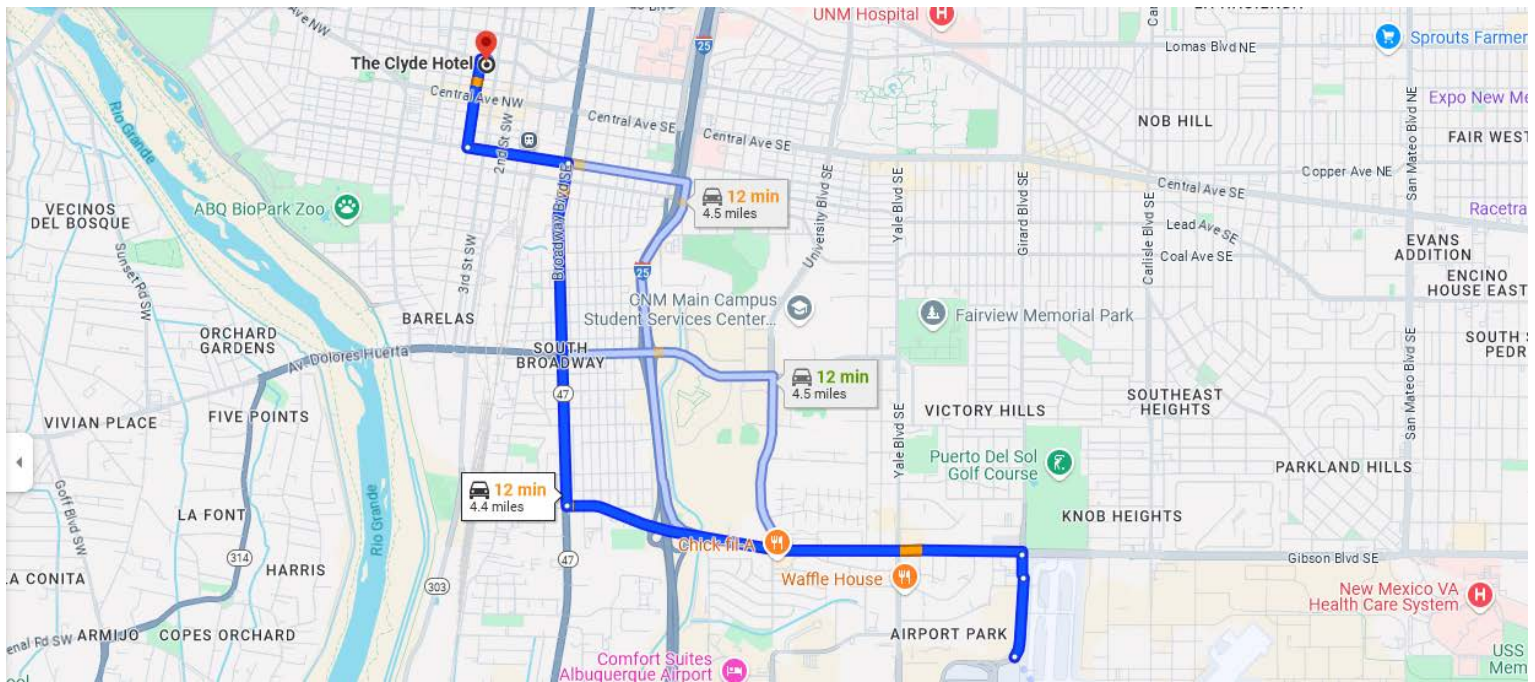
Airport: Albuquerque International Sunport (ABQ)

Airlines: Advanced Air, Alaska, American Airlines, Delta, JetBlue, Southwest, Spirit, Sun Country Airlines, United

Ground: Uber / Lyft / Taxi - \$25 - \$45 one way, 12 minutes / 4.5 miles to the hotel. Prices subject to change.

All Major Rental Cars available.

Hotel Parking: Self-parking included for SAWE attendees.



A reminder that beginning **May 7, 2025**, every air traveler 18 years of age and older will need a REAL ID-compliant driver's license, state-issued enhanced driver's license, or another [acceptable form of ID](#) to fly within the United States.

(See [REAL ID | Transportation Security Administration \(tsa.gov\)](#) for more details)



Conference Registration

Registration is required for everyone attending or participating in any of the conference proceedings. Only by registering can you obtain a Conference Badge, which is required for admittance to these events. Registration levels and fees are listed in the table on the following page. The Welcome Reception, Standards and Practices Luncheon, and the Awards Banquet are included in your registration, however, we ask that you indicate which meals you will attend and your food choices during the registration process to ensure proper headcounts. Registered attendees will also have access to electronic copies of all SAWE papers presented at the conference following the event.

Various discounts are available as shown in the second table on the following page. SAWE Members in good standing will receive an automatic \$100 discount, so **it pays to be a member**.

(Note: be sure to register using your member login email address to get the discount.)

Authors and Presenters also will receive a discount code of \$400 for Professionals and \$150 for Students (which makes registration free for student authors and presenters). Corporate Partners will receive free registration discount codes depending on their Corporate Partner membership level, so we encourage your company to become a Corporate Partner at the Silver or Gold level. Research Access Members and Exhibitors will also receive two registration discount codes.

Those individuals who select “Training Only”, pay only for their chosen training courses. If you plan to take some training and attend the conference, your Professional registration fee will be automatically reduced by \$400 for each class that conflicts with the general conference proceedings.

Online registration via credit card in advance of arrival is strongly advised. If you need to provide an invoice to your employer for business travel approval, registration may be completed with a billable invoice for later payment which must be coordinated with the conference registration chairperson.

IMPORTANT:

- **All applicable registration fees must be paid in full prior to or at the time of obtaining your badge and conference materials at the conference registration desk. NO exceptions will be allowed, including exhibitor representatives.**
- **Cancellation requests received prior to May 1, 2025 will be refunded less a 10% administrative fee. After this date, no refunds will be possible.**
- **Conference registration prices will increase by \$50 on May 1, 2025.**

[Click here to Register](#)



Conference Registration Fees

Registration Type	Fee (USD)	Description
Professional	\$1,200	Attendees who desire full 3-day access to conference proceedings, meal events, and networking venues.
Retiree	\$250	
Student	\$150	
Guest	\$125	Guests of attendees who desire access to the welcome reception, awards banquet, and hospitality suite.
Single Day Pass	\$400	Includes single-day access to the conference, including scheduled conference proceedings and the vendor hall.
Training Only	Class Fees Vary	Those only participating in training classes — <i>excludes access to conference proceedings, meal events, and networking venues.</i> (Conference meal events are available as add-ons).

Available Conference Registration Discounts

Discount	Amount (USD)	Description
SAWE Member	-\$100	Login to the website to receive this automatic discount for Members in good standing.
Author/Presenter Professional	-\$400	Discount code to be issued to verified individuals via email. *
Author/Presenter Retiree	-\$250	Equivalent to free registration for the entire conference. Discount code to be issued to verified individuals via email. *
Author/Presenter Student	-\$150	Equivalent to free registration for the entire conference. Discount code to be issued to verified individuals via email. *
Corporate Partner/Exhibitor	-\$1,200	Equivalent to free registration for the entire conference. Discount code to be issued to verified individuals via email. (Quantity dependent on Partner level.) *
Training	-\$400	For each day that a conference attendee has a conflicting training class, \$400 is automatically deducted from the registration fee.

*Don't forget to enter your discounts during the registration process.



Training Registration

Course registrations must be completed no later than May 1, 2025 to ensure your seat in the class, and to allow for pre-planning by the instructor and preparation of sufficient class materials. Exceptions will be considered ONLY if class space remains after the cutoff date. Class sizes are limited, and enrollment is subject to availability. The SAWE reserves the right to cancel or combine classes if enrollment does not meet the minimum requirements.

Registration Fees must be paid in full prior to the beginning of the class for which the Trainee is registered. No Trainee will be allowed admittance into the class if registration fees are not paid in full. The following fees apply for the classes being offered this year:

Training Class Registration Fees

Class	Cost
Vendor Weight Control	\$700
Designing the Aircraft of the Future	\$1,400
Aircraft Fuel System Calibration	\$350
Advanced Mass Properties Measurement	\$700
Developing Basic Parametric Methods	\$700
Structural Weight Optimization	\$700
Aircraft Weight and Balance	\$1,400
Automated Weight and Balance System(AWBS) Software	\$750

[**Click Here to Register**](#)



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INGALLS SHIPBUILDING | MISSION TECHNOLOGIES | NEWPORT NEWS SHIPBUILDING

Weight Engineering Journal

Download our Society Journal published three times per year containing mass properties related articles, technical papers, forum transcripts, and more.

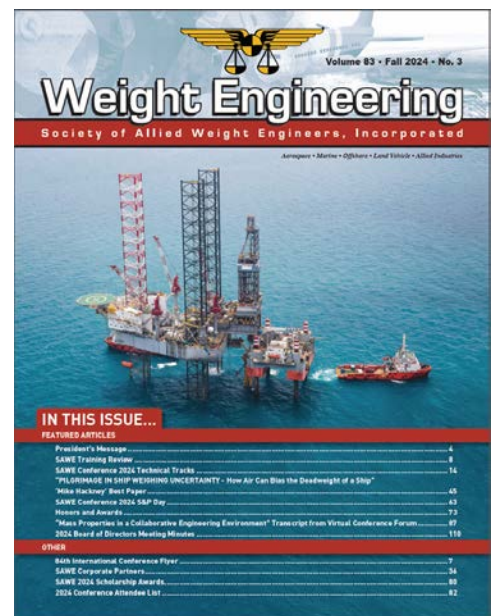
Members receive their copies for free!

For more info visit our store at:

[SAWE Weight Engineering Journals](#)

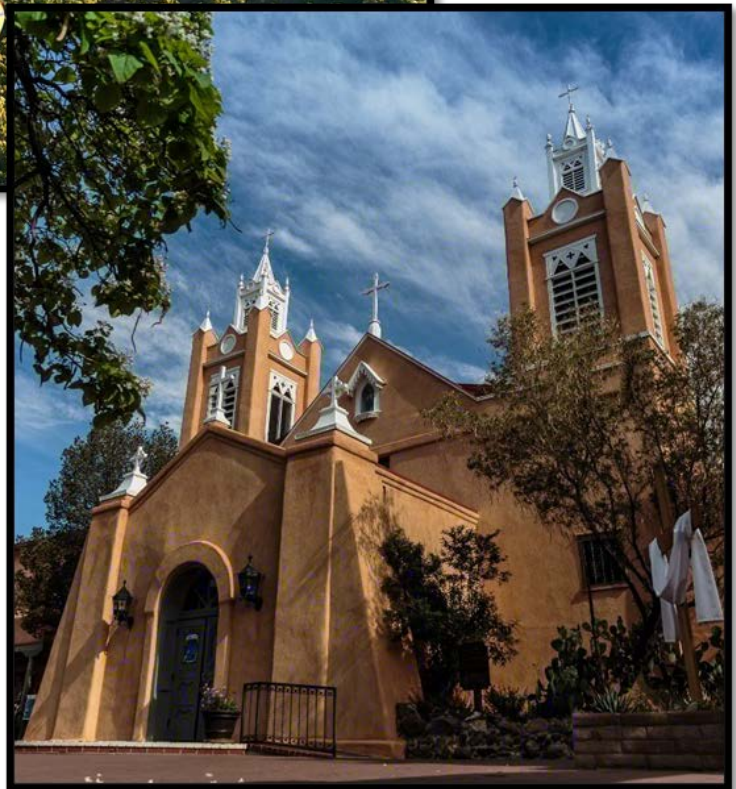
Historical Journals dating from 1962 may also be viewed at:

[SAWE Members – SAWE Historical Journals](#)





Come join us in Albuquerque!



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