



Society of Allied Weight Engineers, Incorporated

Aerospace • Marine • Offshore • Land Vehicle • Allied Industries

Welcome to the SAWE Southeast Region



**A Proud Chapter of the
Society of Allied Weight Engineers**



Who is SAWE?

- **We are an International Organization of Mass Properties Engineers founded in 1939**
- **Our Purpose:**
 - To promote the Mass Properties discipline
 - To provide a medium for exchanging recommended practices based on experience and innovation
 - To foster technical excellence and superior quality in mass properties prediction, control and validation
- **22 Chapters in the US, Canada, South America, UK and Europe**
- **15 Corporate Members and Partners**



Industries Served by SAWE

- Initially - Society of Aeronautical Weight Engineers
- 1973 - Renamed Society of Allied Weight Engineers to include:
 - Aerospace – aircraft, missiles, space, electronics, ...
 - Marine – surface, cargo, submarines, ...
 - Land Vehicles – automotive, armored, construction, ...
 - Offshore Platforms – oil and gas, launch/landing, ...





SAWE Leadership

Position	Officer	Organization
President	Bill Boze	Huntington Ingalls Industries
Executive VP	Clint Stephenson	S&K Global Solutions
Senior VP	Ruben González-González	Airbus
VP Publications	Nicholas Marickovich	Huntington Ingalls Industries
VP Technical	Robert Zimmerman	Lockheed Martin - Retired
VP Training	Dan Rowley	Northrop Grumman
VP Vendor Relations	Paul Kennedy	Space Electronics
VP Internet	Andrew Brooks	Lockheed Martin Aeronautics
VP Standards & Practices	Andreas Schuster	SBM Offshore - Retired
VP Academic Affairs	Dr. Donna Gerren	University of Colorado Boulder
Executive Director	Ron Fox	SAWE, Inc.



SAWE Southeast Region Chapter

- **1982 - Began as Atlanta Chapter**
 - Primarily Lockheed Martin and Delta Airlines
- **2011 – Renamed Southeast Region Chapter**
 - Focal point moved to Savannah
 - Includes SE region of USA for those not affiliated with other Chapters
 - Georgia, South Carolina, North Carolina
 - Members from Gulfstream, Boeing, Lockheed Martin, and Shipwright





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SAWE Southeast Region Chapter

OFFICERS

Our Current Leadership Team



Damian Yanez
International Director



Farid Farizy
President



Tom Tanner
Vice President



Luis Alberto Lopez
Secretary



Dell Ruff
Treasurer





Why is Mass Properties Control important?

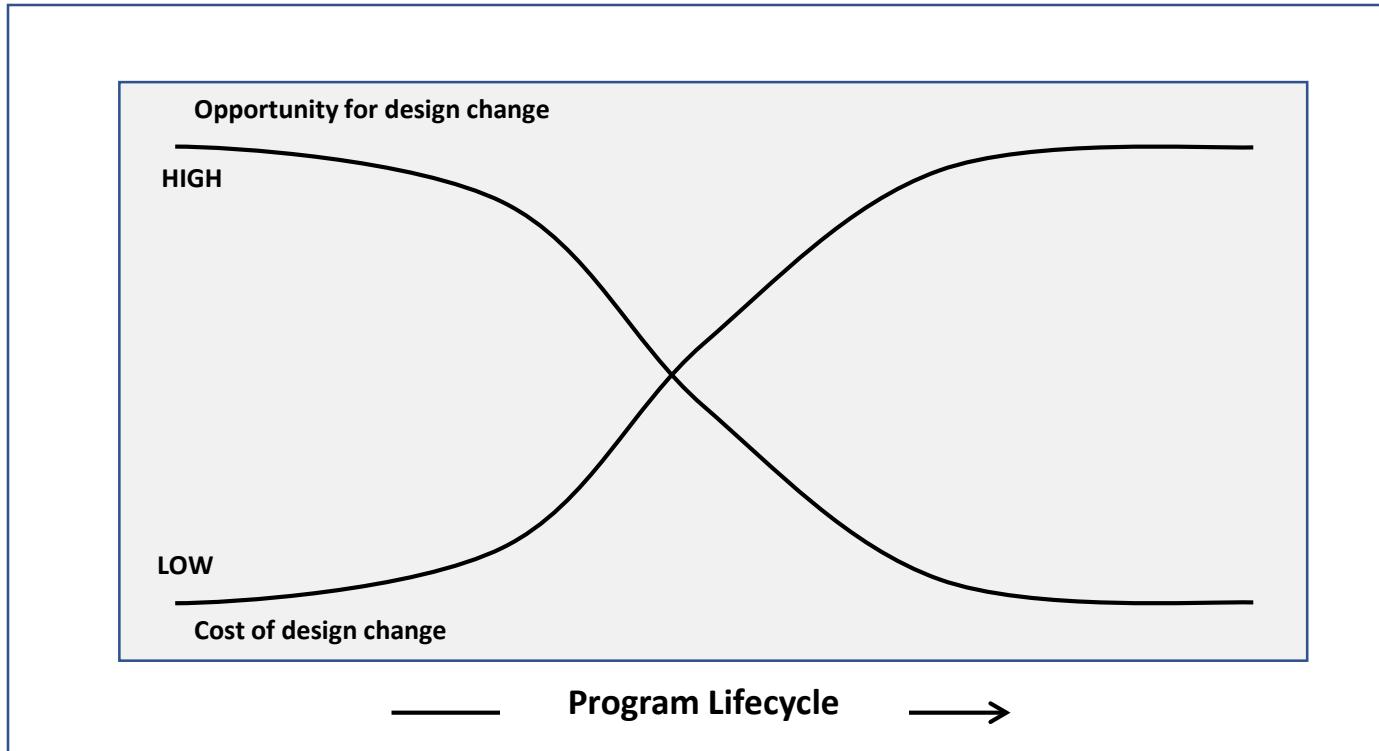
- Weight, Center of Gravity, Moments and Products of Inertia are **critical** for vehicle safety and performance





Why is Mass Properties Control important?

- Cost of weight growth and balance issues increases dramatically as your programs progress





Why is SAWE important?

- **Mass Properties discipline often overlooked**
 - Not specifically in college curriculum even though it is integral to every product and system
 - Company Management mistakenly thinks CAD can do it all
 - Inadequate staffing/skills increases program risk
 - Aging workforce in this crucial discipline
- **SAWE provides:**
 - Proven processes for mass properties control
 - Educational resources for ensuring a skilled workforce
 - International collaboration between industry and governments
 - Venue for sharing and discovering new methods and lessons learned



Why should I be a Member?

- **Networking**

- Collaborate with peers at chapter meetings and regional and international conferences
- Mentor the next generation and learn from experts
- Discover career opportunities
- Make lifelong friendships

NORFOLK, VIRGINIA

SOCIETY OF ALLIED WEIGHT ENGINEERS, INC.

Aerospace • Marine • Offshore • Land Vehicle • Allied Industries

THE HAMPTON ROADS CHAPTER OF THE SAWE INVITES MEMBERS, INDUSTRY, & ACADEMIA TO THE

FALL REGIONAL (SEPT 13 - 15, 2018) &

78TH INTERNATIONAL (MAY 18 - 23, 2019)

CONFERENCES ON MASS PROPERTIES ENGINEERING

NORFOLK, VA HILTON NORFOLK – “THE MAIN”

HAMBURG, GERMANY

SOCIETY OF ALLIED WEIGHT ENGINEERS, INC.

79TH INTERNATIONAL CONFERENCE ON
MASS PROPERTIES ENGINEERING
MAY 2020



Why should I be a Member?

- Publications

- Members Only access to the premier source for Mass Properties literature
- Extensive Library of over 3000 Technical Papers *
- 3 issues of Weight Engineering Journal per year
- SAWE Blog
- Discounts for all SAWE publications and textbooks
- Free SAWE Handbook (digital) plus updates

* 10 free downloads/year





Why should I be a Member?

- **Training**

- Variety of courses from analytical methods to measurement techniques taught by experts online, onsite, or at conferences
- Improve your technical capabilities and skills



Classroom



Hands on



Why should I be a Member?

- Scholarships*

- SAWE Scholarship - \$1000 (2 awarded/year typically)
 - Applicants must be high school seniors or graduates who plan to enroll or students who are already enrolled in a full-time undergraduate course of study at an accredited four- year college or university.
- Frank Fong Memorial Scholarship - \$1000 (1 awarded/year)
 - Same requirements as above, but applicant must be majoring in a scientific field (e.g. engineering, physics, mathematics, computer sciences, etc.)
- Annual Conference Scholarship - \$1000 (1 awarded/year)
- Chapter Scholarships
 - Amount determined by individual Chapter

*For student members and children or grandchildren of members active for at least 1 year





Why should I be a Member?

- **Recognition**

- Awards for advancing the Mass Properties discipline
 - Best Student Paper Award
 - Ed Payne Young Engineer Award
 - L. R. “Mike” Hackney Best Paper Award
 - Special Merit Award
 - SAWE Fellow
 - SAWE Honorary Fellow
 - SAWE Richard Boynton Lifetime Achievement Award





Why should I be a Member?

- **Leadership Development**

- SAWE helps you:

- Innovate
 - Create
 - Solve problems
 - Make a difference locally and globally!

- Numerous opportunities to get involved and lead

- Local Chapter Positions
 - International Officer Positions
 - Committee Chairs





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Aerospace • Marine • Offshore • Land Vehicle • Allied Industries

Why should I be a Member?

• Standards

- Gain access to proven recommended practices created through years of SAWE, industry and government collaboration
- Help shape these standards

 SOCIETY OF ALLIED WEIGHT ENGINEERS, INC. Serving the Aerospace • Shipbuilding • Land Vehicle Executive Director P.O. Box 60024, Terminal Annex Los Angeles, CA 90060	RECOMMENDED PRACTICE NUMBER <u>7</u> Date Issued <u>May 18, 2004</u>
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MASS PROPERTIES MANAGEMENT AND CONTROL FOR MILITARY AIRCRAFT

Revision Letter D

Prepared by
Government - Industry Workshop
Society of Allied Weight Engineers, Inc.

All SAWE technical reports, including standards applied and practices recommended, are advisory only. Their use by anyone engaged in industry or trade is entirely voluntary. There is no agreement to adhere to any SAWE standard or recommended practice. The Society of Allied Weight Engineers, Inc. (SAWE) does not guarantee the accuracy of any information contained in any report. In formulating and acquiring technical reports, the SAWE will not investigate or consider patents which may apply to the subject matter. Prospective users of the report are responsible for protecting themselves against liability for infringement of any patent. Discrepancies between the recommendations and the recommended practice incorporated into a contract, if any, shall be binding to the extent specified in the contract.

SAWE RECOMMENDED PRACTICE

 SOCIETY OF ALLIED WEIGHT ENGINEERS, INC. Aerospace • Marine • Offshore • Land Vehicle • Allied Industries Executive Secretary P.O. Box 60024, Terminal Annex Los Angeles, CA 90060	RECOMMENDED PRACTICE NUMBER <u>8/A-7</u> Date Issued <u>July 1, 2015</u>
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Weight and Balance Data Reporting Forms for Aircraft (including Rotorcraft and Air-Breathing Unmanned Aerial Vehicles)

Revision B

Prepared by
Standards and Practices Committee
Society of Allied Weight Engineers

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S.A.W.E. RECOMMENDED PRACTICE

 SOCIETY OF ALLIED WEIGHT ENGINEERS, INC. Serving the aerospace – Shipbuilding • Land Vehicle and Allied Industries Executive Director P.O. Box 60024, Terminal Annex Los Angeles, CA 90060	RECOMMENDED PRACTICE NUMBER <u>9</u> Date Issued <u>03-June-2000</u>
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INTERNATIONAL WEIGHT AND BALANCE CONTROL FOR GUIDED MISSILES

Prepared by
Government - Industry Workshop
Society of Allied Weight Engineers, Inc.

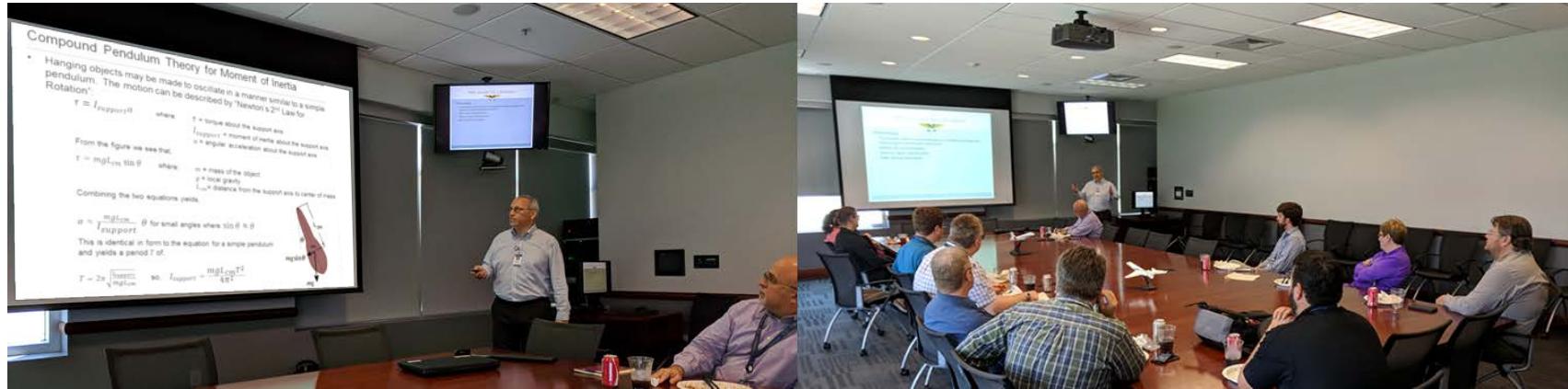
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Why should I be a Member?

- **Skilled Workforce**

- Mass Properties Engineers properly trained with access to the latest knowledge base
- Program risk reduced through proper application of proven processes
- Lessons learned passed on to younger generation starting at the college level





How much does it cost?

Level	Cost
Individual	
• New Member	\$30/1st year
• Member	\$60/year
• Retired Member	\$30/year
• Student Member	Free (pending verification)
• Lifetime	\$900

Special Deal - Gulfstream reimburses half of annual dues
for employees!



Where can I learn more?

- <http://sersawe.org> and <https://www.sawe.org>





Where can I learn more?

- <https://www.sawe.org/students/>

The screenshot shows a web browser window displaying the 'SAWE Students' page. The title bar reads 'SAWE Students - Society'. The main content area features a large photograph of a man speaking at a podium to a seated audience. Below the photo, a yellow box contains the text 'FEATURED Join the SAWE' and 'Join today for FREE!'. A link 'Check out the [MEMBERSHIP PAGE](#) for more information.' is also present. At the bottom of the page, there is a search bar and the SAWE logo.

SAWE Students
SOCIETY OF ALLIED WEIGHT ENGINEERS

Home Mass Properties Conferences Membership Scholarships

FEATURED

Join the SAWE

Membership

Join today for **FREE!**

Check out the [MEMBERSHIP PAGE](#) for more information.

Search ...

https://www.sawe.org/students/design-your-future-in-mass-properties-engineering/



How do I join?

The screenshot shows a web browser window for the SAWE Southeast Region website at <http://sersawe.org/>. The page has a black header with yellow text: "SAWE Southeast Region", "ABOUT", "EVENTS", "NEWS", "MEMBERSHIP" (which is highlighted in yellow), "OFFICERS", and "CONTACT". Below the header, the main content area has a large title "MEMBERSHIP" and a subtitle "Build your knowledge! Improve your skills! Advance your career!". There are three yellow circular icons with white icons: a shopping cart for "E-Store", a laptop for "Blog Site", and a person for "Join/Renew". A large blue arrow points down from the "MEMBERSHIP" button in the header towards the "Join/Renew" icon.

MEMBERSHIP

Build your knowledge! Improve your skills! Advance your career!

E-Store

Download technical papers and publications from the SAWE International Website.

Blog Site

Join the conversation at the SAWE International Blog Site.

Join/Renew

Update your membership information, and pay your annual dues at the SAWE International Website.



Come and Join Us!

- We encourage you to join us at our quarterly meetings
- Help us keep our critical discipline alive and well
 - Write a paper, attend a conference, help with chapter projects



Help Us Help YOU!