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FLIER

LONG ISLAND SECTION

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Note from the Chairman

This is FLIER announces meetings and reminds you of meetings previously announced.

We continue Section meetings in Zoom format. Please see meeting announcements on the next pages and sign up. We are considering resuming in-person meetings in June.

We are planning additional meetings in April through June. Please check future FLIER issues for information.

We would appreciate your suggestions for future section meetings. Please send suggestions for topics and/or speakers to davidsparis@twc.com or to any other member of the Long Island Section Council.

Thank you,

Dave Paris, 516-458-8593 davidsparis@twc.com

EVENTS CALENDAR

March 20, AIAA Niagara Frontier Section Webinar, John Blanton, “The History of the World’s Most Successful Aircraft Engine Program – The CFM56.” Details on page 3.

March 22, AIAA Long Island Section Zoom meeting. Jim Cavera. “Future Propulsion: Nuclear Fission, Fusion, and Beyond.” Discussion on page 2.

March 26, Tri-state Engineering Expo. At White Plains High School. Details on page 4.

April 27, Plans for our next meeting are in progress.

April 30, Deadline for submission of student-written essays for the 2023 AIAA Essay Contest. Essays must be written by the student. Computer-generated essays are not acceptable. Details on page 5.

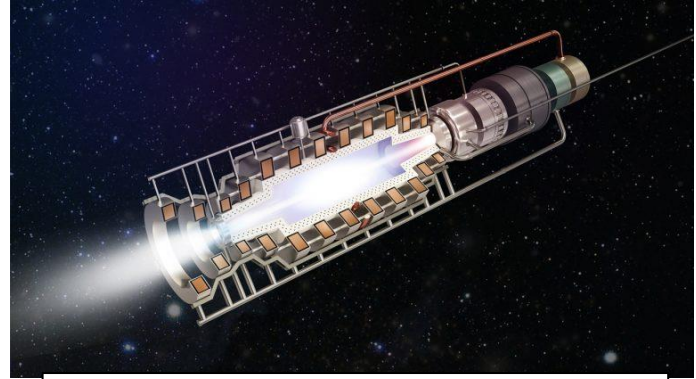
Watch this space for news of future meetings.

The James Webb and Hubble Space Telescopes and orbiting spacecraft continue to reveal new information about our universe. Juno continues to take revealing pictures of Jupiter’s moons and will provide even better pictures of Io (from just 930 miles) before the end of this year.

The Perseverance rover on Mars is storing capsules of Mars soil for a future mission that will bring these samples to Earth.



NASA conceptual nuclear thermal propulsion spacecraft



NASA concept fusion reaction propulsion spacecraft

AIAA/SWE/ASME/ISA/IEEE (AESS)
Joint Zoom
Section Meeting

Wednesday, Mar. 22, 2023

Mr. Jim Cavera
AIAA Distinguished Speaker
Senior Engineer
Blue Origin

“Future Propulsion: Nuclear Fission, Fusion, and Beyond”

Location: Zoom Meeting online
Link will be sent to those who register

Time: 6:30 PM Social Time
7:00 PM Presentation

RESERVATIONS REQUIRED
RSVP BY March 21, 2023
davidsparis@twc.com
or (516) 458-8593

Nuclear propulsion promises performance many orders of magnitude better than chemical propulsion. Chemical propulsion can give us the moon, but nuclear propulsion can give us the solar system and even the stars. In this talk, the theoretical underpinnings of nuclear propulsion, the historical experiments, and the prospects for the future will be discussed.

Jim Cavera is a senior engineer with Blue Origin. He has undergraduate degrees in optical engineering and physics, and his graduate work was in nuclear engineering and aerospace engineering, during which he explored the use of dense plasma focus devices for interstellar travel. He has served for many years on AIAA's Nuclear and Future Flight Technical Committee and is currently its vice chair. His current research is in neutronics and MHD codes for fusion device simulation.

Directions: Click on the link in the meeting invitation you will receive after signing up for the meeting.



Western and Central New York **Niagara Frontier Section** *Eastern Ontario and Quebec*

Webinar, Monday March 20th, 7:00 PM EDT

John Blanton

The History of the World's Most Successful Aircraft Engine Program – The CFM56



Almost everyone reading these words will have taken a commercial airline flight – probably many – on an aircraft powered by the CFM56, the most successful and ubiquitous aircraft engine in history. This presentation tells the story of how an international partnership between two companies with polar opposite business philosophies led to that engine. Starting with only the idea for an engine with no airplane that needed it, and with the knowledge that the U.S. Government had forbidden the partnership, they forged ahead with the project and eventually overcame every obstacle in their path.

Please join us this month when John Blanton, retired General Electric Chief Consulting Engineer, discusses the development of the engine that powers the vast majority of Boeing 737s and Airbus A320s, the most popular commercial airliners in the world. Dr. Blanton has B.S., M.S. and PhD degrees in Mechanical Engineering from Virginia Tech and continues to teach and consult via his company Classic Engineering, LLC. He is an active leader and passionate supporter of both AIAA and ASME, is a Fellow in both societies, and currently serves as the chairman of the AIAA Carolina Section.

Pre-registration is required. Use this link <https://tinyurl.com/yckp8ax2> to register and receive your invitation to attend on the 20th.



THE AMERICAN INSTITUTE OF AERONAUTICS AND ASTRONAUTICS (AIAA)
& THE AIAA SPACE SYSTEMS TECHNICAL COMMITTEE (SSTC)

& THE AIAA LONG ISLAND SECTION

INVITE YOU TO PARTICIPATE IN THE

2023 SSTC & Long Island Section

STUDENT ESSAY CONTEST

The Long Island Section will judge essays submitted for both 7th and 8th grades together. The best 7th and 8th grade essays will be submitted to the SSTC.

THEME:

"Choose one aspect of the James Webb Space Telescope, describe how it works, and explain why it leads us to new discoveries and to answer important questions about the universe."

REQUIREMENTS:

- Typewritten essay, double-spaced, Times New Roman 12 pt. font, in 500-1,000 words
- Include student name, teacher name, grade, and school name printed at the top of the essay
- Submit essay by e-mail to the Long Island Section at davidsparis@twc.com. Include student name, and teacher name, phone, e-mail, and mailing address, for notification and awards in the body of the e-mail.

JUDGING CRITERIA

1. Originality of ideas presented (30%)
2. Soundness of logic used to develop ideas (30%)
3. Realism of ideas presented (20%)
4. Quality of composition and clarity of expression (20%)

NATIONAL PRIZES:

- 1st place will be awarded \$125.
- 2nd place will be awarded \$75.
- 3rd place will be awarded \$50.

Winners will be publicly announced in the September 2023 issue of Aerospace America magazine.

ELIGIBILITY: Any seventh or eighth grader (or equivalent).

SUBMISSIONS OR QUESTIONS FOR LI SECTION:

E-mail Dave Paris at davidsparis@twc.com

SUBMISSIONS OR QUESTIONS FOR SSTC:

If you wish to avoid the LI contest, submit "at-large" to Jeff Puschell, at jppuschell@raytheon.com.

Send questions about the SSTC contest by Email to
Anthony Shao-Berkery ant.shao@gmail.com
Erica Rodgers erica.rodgers@nasa.gov
Smrithi Keerthivarman smrithik@umich.edu

DEADLINE: Final submission deadline to the Long Island AIAA section is April 30, 2023. Local winners and their teachers will be notified in May 2023. National winners and their teachers will be notified in June.

LONG ISLAND SECTION PRIZES:

Seventh & Eighth Grade essays judged together

- 1st place: \$300 award
- 2nd place: \$200 award
- 3rd place: \$100 award

If the Long Island Section is able to hold an Annual Dinner Meeting, all winners will be invited.



Sunday – March 26, 2023

White Plains High School

550 North Street, White Plains, NY 10605

11:00AM to 3:30PM

Tristate areas largest hands-on engineering sponsored event for High School and Middle Schoolers.

Meet Representatives From

Top Engineering Colleges & Universities

Learn About The Industry From

Top Engineering & Technology Firms

Get Your Questions Answered at

The Young Engineers Panel



Free Admission!

Giveaways!

Contests!

Activities!



The Tri-State Engineering Expo, a NYS Chartered 501(c)(3) corporation. Donations are tax deductible to the maximum extent allowed by law.

Learn more at: **BeAnEngineer.org**