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Chair Chat

St. Louis Section Chair - Jim Guglielmo

Welcome to the April issue of the St. Louis AIAA Section newsletter. Due to the current COVID-19 Coronavirus pandemic, this is definitely a very challenging time, from both a health as well as economic perspective, and I sincerely hope you and your families are staying safe and doing well. Our AIAA St. Louis Section is following the guidance from the CDC and government agencies, and we have postponed our remaining Spring events. This includes our monthly Technical Specialist meetings, Dinner meetings, and our first family picnic. The May Awards Banquet and family picnic will be re-scheduled for late summer or early fall, pending the COVID-19 status at that time. I thank you for your patience and understanding during this difficult time.

One unusual side effect of the COVID-19 virus was the setting of a new aviation world record. On March 14, 2020, French airline Air Tahiti Nui flew the longest scheduled passenger flight in terms of distance traveled, from Papeete, in Tahiti, French Polynesia, to Paris' Charles de Gaulle airport. Flight TN064, on a Boeing 787-9, was airborne for just under 16 hours and traveled 9,765 miles to set the new record. Typically the flight would have had a scheduled stopover at Los Angeles International Airport, but due to the coronavirus-induced



 ${\it https://www.cnn.com/travel/article/coronavirus-worlds-longest-flight/index.html}$

US travel restrictions, it flew with its partially filled cabin straight from Tahiti to France. The previous record of 9,534 miles was held by Singapore Airlines, for passenger service between Singapore and Newark.

As noted later in this newsletter, please consider applying for a membership upgrade to Associate Fellow or Fellow, or nominating a colleague for an AIAA St. Louis Section Award. And please take a few minutes to cast your ballot for the 2020-2021 AIAA St. Louis Section officer elections, which are running through May 15th.

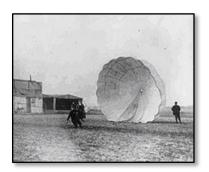
As always, if you have any questions, please email me at <u>james.j.guglielmo@boeing.com</u>, or call 314-452-1271. Thanks!

Tim Guglielmo

History in Aviation: March and April

Historian - Colin Thiele

- **1 March 1912 -** US Army Capt. Albert Berry successfully completes the first parachute jump in the United States from 1,500 ft. over Jefferson Barracks in St. Louis.
- 2 March 1969 Concorde prototype 001 takes it first flight, with pilot André Turcat at the helm.





First Parachute Jump from Capt. Berry

Concorde Supersonic Airline

- **25 March 1993** Barbara Harmer, the first female Concorde pilot, makes her first flight as First Officer on the daily Heathrow JFK Concorde route.
- **28 March 1936** NACA commences operational use of the 8-ft. high speed tunnel at the Langley Memorial Aeronautical Lab. It can test up to 577 mph (Mach 0.75).
- **6 April 1967 -** Trans World Airlines (TWA) is the first US airline to operate an all jet fleet, retiring its last Lockheed Constellation.



TWA Advertisement



Gagarin's Historic Flight

- **10 April 1926 -** Charles Lindbergh is assigned the Chief Pilot role of the St. Louis Chicago air mail route for Robertson Aircraft Corporation.
- 12 April 1961 Flight-Major Yuri Gagarin becomes the first human in space, onboard the Soviet spacecraft Vostok 1. The flight lasted 108 minutes and included an 89-minute orbit of Earth.

Aerospace Link of the Month



British Airways has moved a number of its planes to Bournemouth Airport

https://www.bbc.com/news/uk-england-london-52089046

On 3/16/2020, the Center for Aviation (CAPA) warned that the travel restrictions imposed as a response to the CAVID19 pandemic could drive most airlines into bankruptcy, and called for governments to coordinate action to mitigate this economic risk.

https://thehill.com/policy/transportation/487752-aviation-group-coronavirus-could-bankrupt-most-airlines-worldwide-by

CAPA is part of the Aviation Week Network. It describes itself as "one of the world's most trusted sources of market intelligence for the aviation and travel industry" with "unrivalled reputation for independence and integrity. https://centreforaviation.com/about

Featured Council Member of the Month!

Membership Co-Chair- Alex Friedman



Alex Friedman is a Level 1 Mechanical Design/Analysis engineer with The Boeing Company. This past year, he's supported the GBSD proposal, T-7, F-15, and F-18 programs in engineering design and development of ground support equipment for the Global Services Division.

Alex received a BSME in 2018 from UMSL, where he did research on nanocoatings and plasmonics, and is currently taking courses to become a TRIZ practitioner. Before Boeing, he worked for the U.S. Navy Reserve in the Seabees.

He enjoys the challenges presented by mechanical design and research, but is also interested in materials science and additive manufacturing.

St. Louis Section Executive Council Election!

Secretary - Ben Reuter

The polls are officially open to elect the Section Officers for 2020–2021! Positions up for election include Chair, Vice Chair, Treasurer, Secretary, Region V Representative, and four Advisors. Two Advisors will be elected to serve a 1-year term and two will be elected to serve a 2-year term. Cast your votes via the online survey using the following link: https://form.jotform.com/201113298328047

The voting period will close on *Friday, May 15, 2020* at 5:00 PM CDT. After completion of the balloting period the Tellers Committee will compile the ballots and notify the Section of the results.

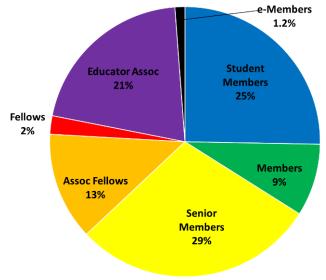


Membership Report

Nic Moffitt, Alex Friedman - Membership Chairs

The Section membership is at 589 members. The distribution breaks down as shown in the table below and the pie chart at the right

Туре	Number
Professional	318
Student	149
Educator Associate	122



If you want to help someone get connected with AIAA events in St Louis, please pass along these contacts:

- <u>@StLAIAA</u> on Twitter
- I Fly St Louis on Facebook
- <u>AIAA St Louis Section</u> on Boeing inSite
- <u>Section Website</u> on AIAA Engage

The Twitter, Facebook, and Boeing inSite groups are free to join and do not require AIAA membership. Please feel free to forward any membership questions to *Nic Moffitt and Alex Friedman*.

Associate Fellow and Fellow Nominations:

AIAA has pushed back the due dates on nominations and references for Associate Fellow and Fellow this year. If you were working on a nomination and just did not have time, the deadlines have been extended by roughly a month. Please see the table below for the new deadlines.

	Nomination Due Date	References Due Date
Associate Fellow Nominations	May 15	June 15
Fellow Nominations	July 15	August 7

New Senior Members:

Professional members can be considered for upgrade to Senior Members when the member has over eight years of professional practice in the arts, sciences, or technology of aeronautics or astronautics. Up to four years of that experience can come from post-graduate work in an aerospace field. This upgrade can happen anytime throughout the year. Senior Membership is required for nomination to Associate Fellow of the Institute.

The St Louis Section Council put together a list of members who meet these qualifications. That list was sent to National for consideration. The members listed in the table on the following page were upgraded to Senior Members at the beginning of April. Please help us congratulate those members.

Name	Organization	Name	Organization
Paul Bent	Boeing	Michael Mueller	Boeing
Steven Broussard	Boeing	Christian Rice	Boeing
Matt Dean	Boeing	Scott Schieferdecker	Boeing
James Dunne	Boeing	David Schwertner	Boeing
Joshua Dustin	Boeing	Daniel Seal	Boeing
John Fussell	Boeing	Tom Seiffertt	Boeing
Daoru Han	Missouri S&T	Yunying Wu	Washington Univ
Randall Marion	Boeing	Terry Yan	Southern Illinois Univ
Nic Moffitt	Boeing		

If you are a Member and meet the qualifications to become a Senior Member, please contact Alex Friedman and Nic Moffitt. They will help you work through the process of getting upgraded.

Technical Specialist Meetings

Technical Specialist Chair- John Schaefer

On March 17, the St. Louis Section was joined by Cory Seidel, a PhD candidate at Washington University in St. Louis. The event was co-sponsored with the Vertical Flight Society, and due to growing public health concerns over COVID-19, attendance was virtual-only. Cory presented his work on inter-rotor coupling in a coaxial rotor system. His approach involved use of the adjoint theorem, as well as a dynamic inflow model which computes the flow above and below each rotor. He discussed a rich variety of dynamic system responses, including analyses of the impacts from the coupling terms, adjoint states, and time delays of the flow on each rotor.

2020 Academy of Science - St. Louis Science E-Fair

The 2020 Academy of Science - St. Louis Science Fair is quickly approaching, with judging for the student projects to be held *virtually* on Wednesday, April 29th. Please see the following website for more information: https://www.sciencefairstl.org/

For the last 10+ years, the St Louis AIAA Section's Service Projects Committee has been proud to review aerospace related projects from students from K-12, and provide nominal monetary awards to those students who have demonstrated thoughtful originality combined with the rigors of proving their aerospace related hypotheses.

Nominations for AIAA St. Louis Section Awards – Due May 15th!

The new deadline for 2020 AIAA St. Louis Section Awards nomination has been extended to May 15th, 2020. The new nomination forms have been simplified to make the nomination process easier for the nominator-with only two questions to answer. If you have already submitted a nomination this year in the original form, there is no need to re-submit, since the reviewers can map the questions and answers from the old form to the simplified new form.

The award categories are as follows:

- Civic Service Award: In recognition of an outstanding contribution to the progress of aerospace activities in the St. Louis area.
- Educator Associate Member Award: In recognition of outstanding contributions to K-12 STEM activities by an AIAA Educator Associate Member.
- Faculty Award: In recognition of a faculty member who has provided outstanding support to an AIAA student branch and individual student members at his/her university, or provided outstanding education to his/her students in the aerospace sciences through innovative curriculum or instructional methods.
- **Lindbergh Award:** In recognition of a distinguished contribution in applying aerospace technology to improving the quality of human life.
- Section Service Award: In recognition of an outstanding contribution to the section's activities by an AIAA section member.
- **Technical Accomplishment Award:** In recognition of outstanding technical research or technical accomplishment in aerospace sciences by an individual or team.
- **Technical Management Award**: In recognition of an outstanding accomplishment in technical management in aerospace sciences.
- Young Professional Award: In recognition of outstanding technical accomplishments of young engineers and scientists in the aerospace disciplines.

Except as noted in the award descriptions above, AIAA membership is not a pre-requisite for award eligibility. Please contact Chelsea Fuller (chelsea.m.fuller@boeing.com) with any comments or questions!

Making a Change?

Are you graduating and moving? Planning to retire soon? Making a career move? If you are leaving the St. Louis Section area, please update your AIAA profile, so you will continue to receive accurate AIAA correspondence.

Go to "My AIAA" (http://www.aiaa.org/myAIAA) and, upon logging in, go to "My Account" and select "Edit Contact Info."

AIAA St. Louis Section Website & Twitter Account

Please see the AIAA St. Louis Section website for more information about upcoming events, announcements, and discussions: https://engage.aiaa.org/stlouis/home

The AIAA St. Louis Section now has a Twitter account! Please follow us at @StLAIAA

AIAA St. Louis Section Council

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If you are interested in joining one of the committees, please contact the AIAA St. Louis Section Chair, Jim Guglielmo, or the committee chairperson.