FLIGHT TEST NEWS

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Seattle SFTE Celebrates 50th Anniversary

The Seattle Chapter announces our chapter's 50th anniversary celebration at the Museum of Flight on June 1 and 2. The Society was founded in 1968 by engineers working on the flight test program of the original 747-100, and we will be honoring our legacy during this two-day event. Friday's schedule will include a local symposium of presentations and workshops celebrating our past and looking toward our future, as well as a cocktail reception. Saturday's schedule will include a public panel discussion about flight test engineering, as well as tours of the museum's four flight test airplanes: the first 747, the first 727 (newly restored), the third 787, and the original 737 prototype, not normally open to the public. Attendees of Friday's Symposium will get free admission to the Museum all day Saturday. On Saturday night we will host an Alumni Dinner to celebrate our founding members. Contact the Event Chairman, Kevin Welch (kevin.d.welch@boeing.com).

Flight Test News

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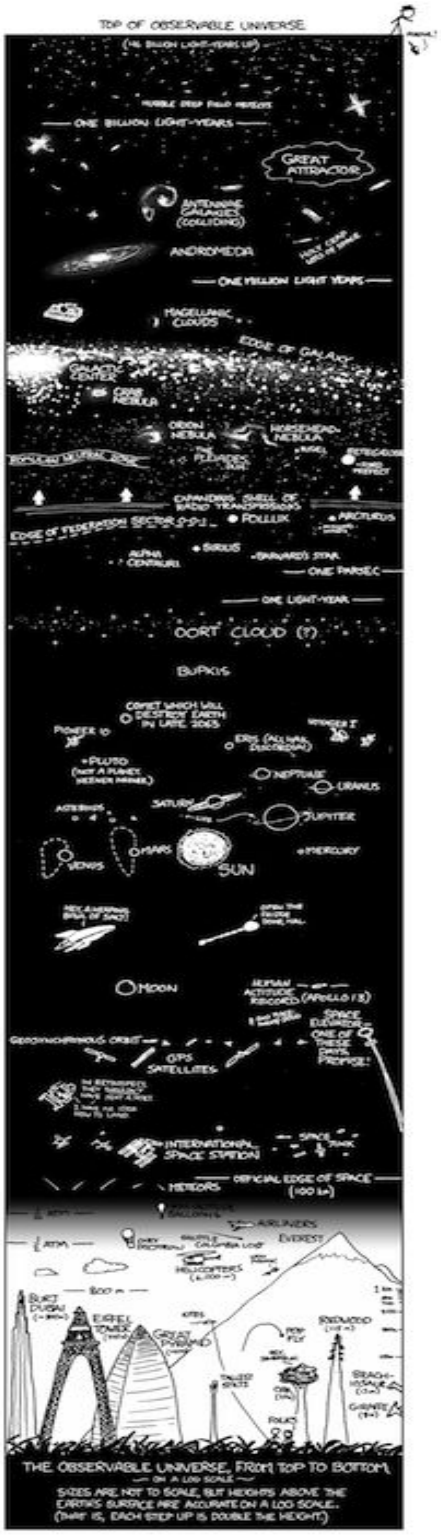
Imagine the Infographic

In 1968, a small group of FTEs in Seattle officially formed the Society of Flight Test Engineers. Less than a year later, man landed on the moon. Is this a coincidence? Yes, it probably is, but it highlights an important point. Woven into the fabric of SFTE history is a series of profound changes in our profession, technology, and the world. We want our upcoming anthology to illustrate this with an infographic.

An infographic depicts factual information in a visually compelling way. The word infographic may not mean the same thing to everyone, so what I'll do is draw your attention to the image at right. The artist created a log-scale plot showing the height of objects ranging from the human scale to the intergalactic scale. If you visit the website, a more reasonably sized image is available there: https://xkcd.com/482/. Follow the link and really soak in the creative ability and informational content of the image. Start at the bottom of the image, at the human scale and work your way up. It is amazing, beautiful, and nerdy. Another appears later in the article: https://xkcd.com/688/.

Our flight test engineering infographic should include the span of the existence of SFTE, and the world events and technological changes that took place. But a simple timeline may not be the most compelling or creative way to present this information. That's where you come in: **We want you to submit your ideas!**

What do you think a flight test engineering-themed infographic might look like? (continued next page)



Infographic (continued)

Will it include a mini-icon of the Wright flyer? A tick mark showing SFTE's inception? A Lunar Module graphic shortly thereafter. What else? What are the key historical events? The background or x-axis of the scale doesn't have to be something boring like a timeline. The historical data could be presented on the outline of an airplane or the profile of a flight or the surface of a Moebius strip. How we present each milestone is also part of the creative design.

In addition to the art layout, we need to collectively decide which milestones should be included. I'd like to start with 50 or so that we can whittle down to the most distinctive and important. To help you grasp some of these events, Al Lawless, Lee Bell, and I have put together the following list, in no particular order.

1903 - Wright Flyer
Concorde
9/11
first oscillograph, magnetic tape, hard drive recording
first use of telemetry
Internet
Smartphones
First use of ailerons
First aircraft carrier takeoff/landing
First documented mention of FTE-ing
First flight of jet a/c, rocket a/c, helicopter, etc
First FTE technical paper (make it a contest to find)
1947 Breaking Mach 1 Breaking Mach 2,3,4,5
First jet airliner enters service
1967 1st multiple aerial refueling (KC-135 to A-3 to F-8: MacKay)
1968 SFTE founded
1968 First flight supersonic airliner (TU-144)
1969 Moon landing
1975 First supersonic airliner enters service (Concorde)
1976 SR-71A (3 absolute records)
1977 MiG-25 absolute altitude record 37,650 m (123,525 ft)
1986 Rutan Voyager non-stop around the world flight records! supported by FTEs Bob Hoey et al
First flight of first trash hauler with a stick (C-17)

2004 Space Ship One (first commercial manned launch vehicle)

Perlan 2 glider altitude record (worthy of inclusion if it wins Collier)

The link below includes many more examples of infographics: https://www.visualnews.com/2016/04/18/100-best-infographics-last-decade/.

SFTE Call for Annual Award Nominations

Every year, the SFTE Board of Directors requests your nominations for our annual awards program. Nominations for all Awards, including Fellows and Scholarships, are due to the International Headquarters in Lancaster, CA by Monday, July 30, 2018. We have three significant SFTE Annual Awards: Kelly Johnson Award for individual achievement, James S. McDonnell award for team achievement, and the Director's Award for service to the Society. All members are welcome to submit nominations for other SFTE members, with the exception of the Director's Award, as only a Chapter or Member of the Board of Directors may submit this nomination.

We also solicit nominations for SFTE Fellow, the highest level of membership in the Society. Candidates for all awards/Fellows may be nominated by individual society members or SFTE chapters. Nominations should be in the form of a one-to-two-page narrative and we strongly encourage including a resume and letter of recommendation.

Last, we are accepting applications for Scholarships. Further Scholarship Information and the application are available on our website.

Register for the Flight Test Safety Workshop

1-3 May 2018 at the Sheraton Arlington Hotel - (817) 261-8200.

The theme of the workshop is "Risk Management – extracting test program risk through detailed planning: hazard identification and risk mitigation – what worked, what didn't, or what we missed in execution of test."

The purpose of this Safety Workshop is to gain further knowledge and competence into flight test risk management through academic tutorial, moderated group exercise, and industry briefings. A primary goal of this workshop is for attendees to return to their respective test organizations with relevant and useful risk management tools and methods that can contribute to thorough test hazard identification, risk mitigation, and improved test readiness.

Tragically, the flight test community has experienced far too many mishaps in the last several years, highlighting the critical importance of shared learning and incorporation of best practices to avoid needless loss of life and damage/loss of critical test assets.

The workshop format is changing in 2018 to a more immersive and interactive discussion and debate, with deliverables of comprehensive risk management references, analysis tools and hazard analysis templates that will be available individually and community-wide.

CLICK HERE TO REGISTER!

Presentation Schedule will be posted soon. For more information, visit http://flighttestsafety.org/workshops.

A limited block of rooms is reserved. Please **CLICK HERE** to reserve your room.

FTN visits 586th FLTS

The NM chapter met with the editor of the FTN on Friday, March 30th. The 586th Flight Test Squadron's mission is to conduct and enable agile weapons, avionics and survivability testing for the joint warfighter. Flight test services are provided for Department of Defense and commercial customers across the full spectrum of program size and complexity. The squadron's low cost per flight test hour enables technology development programs to move beyond the laboratory environment, while working within a small test budget. On the other end of the spectrum, the squadron offers larger and more complex programs and specific flight test solutions required for a major acquisition program. Agility is maintained due to the small size of the organization, resident review and approval, authorities for safety, airworthiness and the rapid ability to accommodate evolving requirements.

Capabilities:
Flying Test Beds / Avionics Development: C-12F, C-12J and four T-38C.
Target Surrogates: Instrumented T-38C or C-12, Instrumented Towed Targets.
Stores Carriage / Employment: Compatibility Flight Profiles, Airborne Lasing.
Electronic Attack: Advanced Jamming Pods, Countermeasure Dispensing (Chaff/Flare).
Electro-Optical / Infrared (EO/IR): Targeting Pod Test and Sensor Development.
Photo / Safety Chase: High Resolution In-flight Photo and Video, Safety Chase (low or high speed).
Deployed Test Host: Logistics, Ammo / Weapons, Equipment, Ramp, Hangars, Office Facilities, COMSEC, Security, Airfield Liaison.
Test Control: Air to Ground Telemetry, Command and Control, Radio Communication, Range Video and Airborne Tracking.
Airspace / Range: Detachment 1 of the 586th Flight Test Squadron provides range and asset coordination and scheduling for flight test on White Sands Missile Range (WSMR).

The 586th is currently the responsible test organization for the next phase of the Light attack experiment.
http://www.af.mil/News/Article-Display/Article/1431104/air-force-announces-next-steps-in-light-attack-experimentation/

WASHINGTON (AFNS) — Following the Light Attack Experiment conducted in August 2017, the Air Force announced its intention to continue experimenting with two non-developmental aircraft, the Textron Aviation AT-6 Wolverine and the Sierra Nevada/Embraer A-29 Super Tucano, from May to July 2018 at Davis-Monthan Air Force Base, Arizona. "Rather than do a combat demonstration, we have decided to work closely with industry to experiment with maintenance, data networking and sensors with the two most promising light attack aircraft — the AT-6 Wolverine and the A-29 Super Tucano," said Secretary of the Air Force Heather Wilson. "This will let us gather the data needed for a rapid procurement."

Further experimentation will examine logistics and maintenance requirements, weapons and sensor issues, training syllabus validity, networking and future interoperability with partner forces. The Air Force will also experiment with rapidly building and operating an exportable, affordable network to enable aircraft to communicate with joint and multi-national forces, as well as command-and-control nodes.

"This effort to find a lower-cost and exportable aircraft for permissive environments is directly in line with the National Defense Strategy," said Chief of Staff of the Air Force Gen. David Goldfein. "A light attack aircraft would not only provide relief to our 4th and 5th generation aircraft, but also bolster our interoperability, so we can more effectively employ airpower as an international team."

The light attack effort supports our nation's defense strategy to counter violent extremism on a global scale, alongside allies and partners. A light attack capability could sustain competence in irregular warfare, maximize capability from financial investment, and harness existing, innovative technologies. A light attack aircraft option not only offers additional value and flexibility, but also accelerates modernization of current and potential partner forces who do not require advanced fighter aircraft.

Five international partners observed the first phase of the Light Attack Experiment, and the Air Force plans to invite additional international partners to observe this second phase of experimentation.

The Air Force expects to have the information it needs to potentially buy light attack aircraft in a future competition, without conducting a combat demonstration, based on data collected during the first round of the experiment and future data anticipated to be collected in the next phase of experimentation.

(US Air Force News Service)