

# Joint Chapter Meeting – October 2021

## INCOSE Chicagoland and AIAA Illinois



CHICAGOLAND



**Topic: Propfan Technology from the 1980's until today**

**Presenter: Tom Fey**

Student of Propulsion Technology

**Presentation Site:** Remote. Online attendance only due to COVID-19.

Date: Thursday, October 21, 2021

Agenda: 6:30 - 7:00 PM CT – Announcements & Introductions  
7:00 - 8:45 PM CT – Feature Presentation and Q&A

### **Abstract**

Aircraft fuel efficiency has become the driving force for profitability in today's airline operations. The current, highly efficient high bypass and geared turbofan engines had their founding technologies developed via joint private and government initiatives of the late 1970's and 1980's. The result was the demonstrator Ultra High Bypass / Un-ducted Fan/Propfan flight engines, the General Electric GE36, Pratt & Whitney / Allison geared 578-DX, and the Russia/Ukraine geared Progress D-27 engines. In response to the current and future demand for ever more efficient engines, the European SAFRAN and partners have created, run, but not yet flown their SAFRAN Open Rotor engine. The history of the founding technologies, developmental partnerships, various design strategies, and challenges of the Open Rotor / Propfan propulsion system will be discussed.

### **About Our Speaker**

Tom Fey is a retired research pharmacologist (drug hunter) from the suburbs of Chicago who has a life-long interest in engines and the automobiles, motorcycles, boats, trains, and aircraft they power. Tom has written articles for air racing newsletters, prototyped semi-scale electric radio-controlled aircraft, and presented talks on engine and propeller technology to the Aircraft Engine Historical Society and Oshkosh Air Venture forums, and EAA Chapter meetings. In addition to restoring WWII gunnery target drone engines to running condition, Tom enjoys researching obscure topics to reveal how they operated and how well, or perhaps how deficiently, these mechanisms performed their intended function.

**Questions?** For more information, go to <http://www.incose.org/Chicagoland/>.

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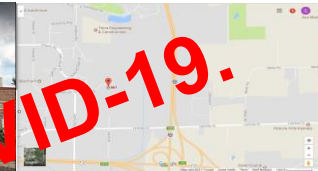
Student of Propulsion Technology

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### INCOSE Chicagoland Sites



Actalent offices  
1501 E. Woodfield Rd. Suite 300N  
Schaumburg, IL 60173  
3rd Floor Conference Room



BB7, 5407 Fen Oak Dr.  
Madison, WI 53718  
Mendota Conference Room



Oshkosh Corp (*Limited to Oshkosh Employees*)  
370 W. Waukau Ave  
Oshkosh, WI 54902

Attend live, on-line! Meeting begins at 6:30 PM CT.

To RSVP and more information, go to:

<https://incosechicagoland-2021-10.eventbrite.com>

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