International Society of Automation
Cleveland Section

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# MARCH PROGRAM

## NASA Propulsion Systems Laboratory Tour

**Wednesday, March 6, 2024**
**Registration Required by Noon Monday March 4, 2024**
**See Registration details below**

**Badge in at NASA March 6 before 2:45**
**Program: 3:15 – 5:00 PM**
**Dinner at The Aviator 5:30 PM**

**Tour Organizer: Debashis Sadhukhan, P.E.**
**NASA Glenn Branch Chief**

**Technical Development Hours: 1 PDH.**

## Registration Details

Tour: NASA Glenn Research Center (GRC) Propulsion Systems Laboratory (PSL) Facility

Date: Wednesday, March 6, 2024

**Must Register by 12:00 pm on Monday March 4, 2024.**
**There is a 40 person limit for this tour.**

**Meet at NASA Glenn Research Visitor Center (Brookpark Road west of the I-480 exits) after you obtain your Badge at the Commercial Vehicle Inspection Station at GRC no later than 2:45 PM. You will not be allowed to join the tour if you arrive past 3:00 pm.**

**Must be US Citizen with one form of current government-issued photo identification:**

- Driver's license or ID card issued by a state. Driver's licenses that do not have photos cannot be used for photo identification.
- U.S. Passport or U.S. Passport Card
- ID card issued by a U.S. federal, state or local government agency or entity provided it contains a photo and name (e.g., U.S. Military ID card, PIV badge)

**All vehicles entering NASA Glenn will be subject to a security inspection.** Prohibited items include any item prohibited by any and all applicable federal, state, local and tribal law and/or ordinance; as well as firearms, dangerous weapons, explosives or other destructive devices (including their individual parts or components) designed, redesigned, used, intended for use or readily converted to cause injury, death or property damage. By registering for and attending this tour, you are responsible for knowing the contents of your vehicle when driving on federal property.

Under federal law, 18 United States Code Section 930, it is illegal to have a firearm in a building or part of a building owned or leased by the federal government where federal employees are regularly present to perform their duties. Therefore, **Concealed Carry permits cannot be honored**.

Due to safety concerns, regulations and speed limits are strictly enforced. The use of all hand-held wireless communication devices are prohibited while driving on NASA property. This includes cell phones (talking and texting), UHF radios, and other hand-held wireless communication devices.

Detailed NASA Visitor Requirements

Video introduction: 3:15-3:45 PM

Tour PSL: 4:00-5:00 PM

Dinner: The Aviator 5:30 PM; 20920 Brookpark Rd, Cleveland, OH 44135
Individual Checks from The Aviator menu.

**Reservations:** Please make your reservation at https://www.isacle.org with your name, email address, no later than Noon Monday March 4, 2024.
**Important: List your employer's company name, and the company's country of origin in the Additional Comments section of the reservation.**

## About the Tour:

Propulsion Systems Laboratory (PSL) Facility

NASA’s only ground-based test facility that can provide true flight simulation for experimental research on air-breathing propulsion, the Propulsion Systems Laboratory (PSL) can simulate altitudes to 90,000 feet and speeds up to Mach 6. The PSL is equipped to conduct full-scale and component testing for base research, advanced aircraft, space transportation, and general-aviation and hypersonic propulsion.

Using onsite compressors, exhausters, and heating and cooling systems, the PSL can accurately create temperature and pressure-inlet conditions that propulsion systems experience in high-speed, high-altitude flight. Of the facility’s two test chambers, the PSL–3 is used primarily for military class turbine engines and explores all facets of advanced aircraft research. The PSL–4, incorporates a high-temperature-and-pressure inlet plenum, addressing high-speed and altitude-propulsion-system research for both aviation and space applications. The PSL has also recently added the capability to simulate clouds of ice crystals and liquid water droplets.

Unique concepts engine testing at altitude have been pioneered and perfected in the PSL, including multi-axis thrust measurement, vectored and reverse exhaust gas collection, infrared imaging at altitude, aeroelastic measurements, transient pressure and/or temperature distortion simulation, and flight-transient simulation.

The PSL has supported such aircraft programs as the SR–71, the F–16, the F–15 STOL and the B52 bomber.