



Society for the
Advancement of
Material and Process
Engineering

SAMPE Los Angeles Chapter News and Information



September
2019

L.A. CHAPTER MEETING

September 19, 2019 (Thursday) at 2:00 PM

NORTHROP GRUMMAN INTEGRATED ASSEMBLY LINE IN PALMDALE, CA



ADDRESS:

Northrop Grumman
3520 E. Avenue M
Palmdale, CA 93550

PARKING:

See enclosed map and instructions below:
At gate entrance, proceed straight and follow
Visitor Parking signs. Parking will be located
near building 405. Check in with the
receptionist in the lobby. Visitors will need to
provide a current driver's license or a
government provided photo ID, e.g. unexpired
passport.

TIME:

2:00 PM – Start program (please come early)

RESERVATIONS:

Please [RSVP](#) by email to

eric.ehlers@canyoncomposites.com

Include the following (NO EXCEPTIONS):

- Full name.
- Date of birth.
- Unexpired U.S. Driver's license number, state,
and expiration date or Passport number and
expiration date.
- Country of Citizenship and Dual Citizenship.
U.S. Citizenship Required.

The F-35 Lightning II Joint Strike Fighter

The Pentagon's F-35 Lightning II has completed its development program and begun deploying overseas. About 300 have been delivered, and that number will double by the end of 2020. The U.S. military plans to buy 2,443 of the stealthy aircraft in three distinct variants tailored to the needs of the Air Force, Navy and Marine Corps.

To date, public discussion of F-35 has focused mainly on what the fighter can do for U.S. warfighters, and at what cost. But there is another dimension to the F-35 story, and that is the positive impact the plane will have on America's trade balance as overseas friends and allies acquire well over a thousand of the fighters, mainly to replace aging F-16s bought during the Cold War.

The F-35 program from its inception has had eight partner countries that helped pay for its development and now are poised to purchase over 600 of the planes. But that is just the beginning of the program's trade impact. An additional 800 planes are expected to be bought by other countries through the Foreign Military Sales program. That process has already begun, with Israel, Japan and South Korea signing on before development was even completed.

Other potential customers currently include Belgium, Finland, Germany, Singapore, Spain, Switzerland and the United Arab Emirates. Over the longer term, virtually every military power that might one day need to contemplate coalition warfare with America will want to take a look, because (1) no other tactical aircraft will be as survivable, (2) no other tactical aircraft will be as versatile, (3) no other tactical aircraft will be as cost-effective, and (4) no other tactical aircraft will mesh as seamlessly with U.S. air power.

I suppose this would be a good point at which to note that F-35 prime contractor Lockheed Martin is both a contributor to my think tank and a consulting client. If I had made the above four claims a few years ago, you might rightly have questioned my objectivity. But not now. After 9,000 flight tests, F-35 has demonstrated all of the performance features expected of it, including the ability to avoid being tracked by adversaries.

The Integrated Assembly Line



Northrop Grumman Corporation has completed the 500th center fuselage for the F-35 Lightning II – ahead of schedule.

Designated AU-18, the 500th F-35 center fuselage is for a conventional takeoff and landing variant for the Royal Australian Air Force. Northrop Grumman began production on the AU-18 center fuselage in June 2018 and completed work on Feb. 21. Northrop Grumman has been producing center fuselages for all three F-35 variants since May 2004.

A core structure of the F-35 aircraft, the center fuselage is designed and produced on Northrop Grumman's integrated assembly line, a state-of-the-art facility supported by technologies exclusive to or pioneered by Northrop Grumman bringing together robotics, autonomous systems, virtual 3D and predictive automation to the forefront of center fuselage production.

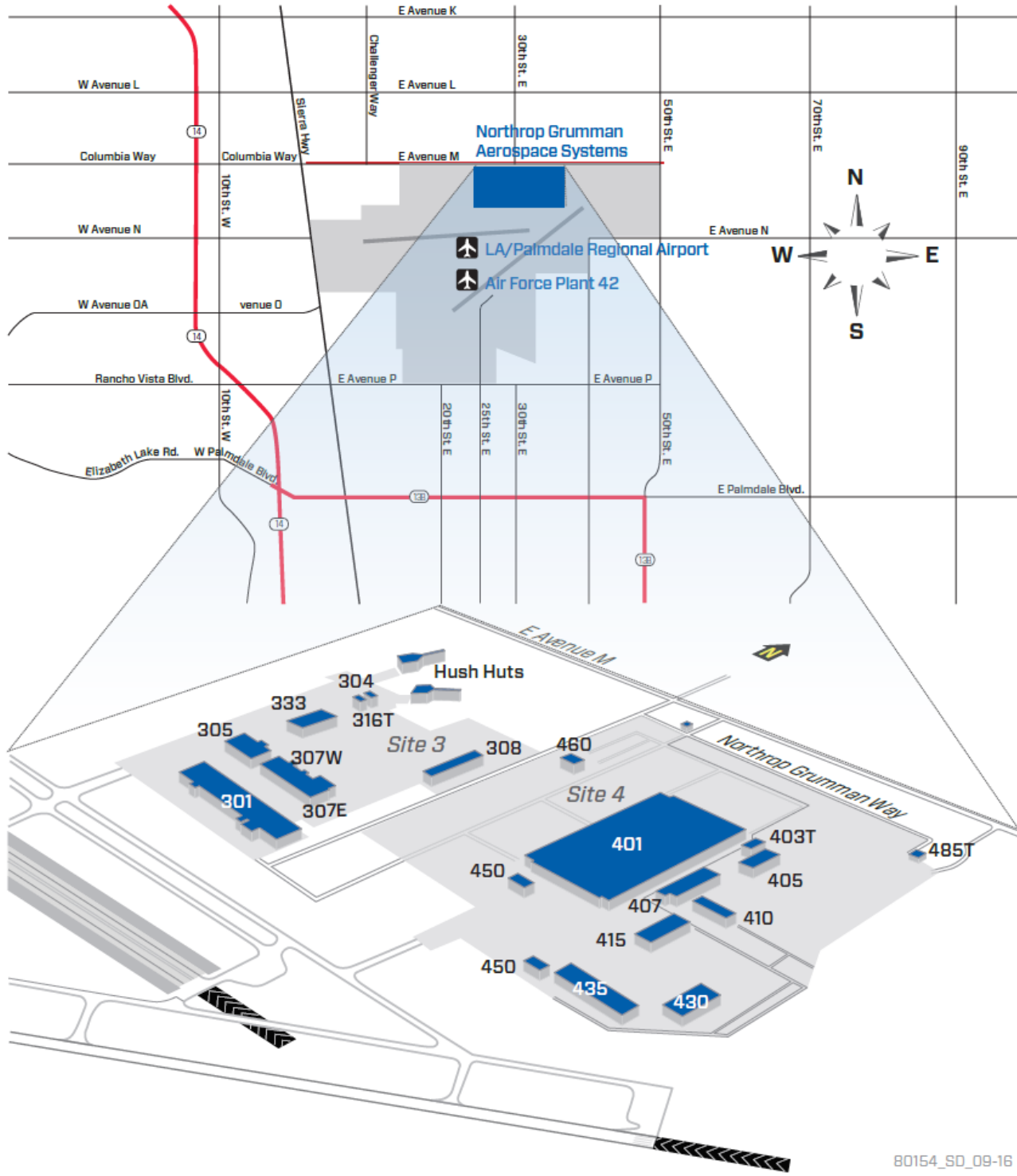
Lockheed Martin is the industry lead for the F-35 program and Northrop Grumman plays a key role in the development, modernization, sustainment and production of the F-35. In addition to producing the center fuselage and wing skins for the aircraft, the company develops, produces and maintains several sensor systems, avionics, mission systems and mission-planning software, pilot and maintainer training systems courseware, electronic warfare simulation test capability, and low-observable technologies.

The F-35 Fighter



MAP TO NORTHROP GRUMMAN IN PALMDALE, CA

Palmdale Site Map



Irene Epstein Scholarship

The Irene Epstein Memorial Scholarship Awards were initiated in 1996 shortly after the death of Irene Epstein, to honor her volunteer efforts on behalf of the Society for the Advancement of Material and Process Engineering (SAMPE), and to recognize her strong desire to assist financially-needy, academically-deserving students at Fairfax High School (Los Angeles) to attend college to study engineering, science, mathematics, or medicine.

The Irene Epstein Memorial Scholarship Awards program was initially funded by contributions from The Aerospace Corporation and SAMPE. It is also supported by the Air Force Space Systems Manufacturing Problem Prevention Program (MP3).

The program is administered by Dr. Howard A. Katzman, Senior Scientist at The Aerospace Corporation, and Education Chairman of the Los Angeles Chapter of SAMPE.

Many individuals and companies have generously contributed to help the fund grow so the amount of the scholarship awards has increased five-fold since it started. In addition, a special Book Awards was introduced three years ago to help selected students in the purchase of their college textbooks. If you would like to make a donation or learn more about the scholarship, please contact Dr. Howard A. Katzman at 310-336-5860 or e-mail him at Howard.A.Katzman@aero.org.

Schedule of Upcoming Events

Event	Location	Date(s)
Aircraft Interiors Expo	Los Angeles, CA	September 10 -12, 2019
Northrop Grumman Integrated Assembly Line Tour	Palmdale, CA	September 19, 2019
CAMX	Anaheim, CA	September 24 -26, 2019
Westec	Long Beach, CA	September 24 -26, 2019
MP3	El Segundo, CA	November 5, 2019
High Desert SAMPE Technical Conference	Lancaster, CA	November 6, 2019

SAMPE-Los Angeles Sponsors

<u>Company</u>	<u>Contact</u>	<u>Phone</u>	<u>E-Mail</u>
Airtech International	Jeff Dahlgren	714 899-8100	jldahlgren@airtechintl.com
Aligned Vision	Scott Blake	978 244-1166	Sb@assemblyguide.com
Element Materials Technology	John Moylan	818 247 4106	John.Moylan@element.com
Hitco Carbon Composites	Les Cohen	310 970-5409	lescohen@aol.com
Laser Technology, Inc.	John Newman	610 631-5043 x14	Jwnewman50@aol.com
Plataine Inc.	Avner BenBassat Avital Dotan	626 486-2629	Avner.BenBassat@plataine.com Avital.Dotan@plataine.com
PMIC	Allen Howard Darrell Oakes	541 753-0607	AllenHoward@pmiclab.com darrelloakes@pmiclab.com
SAMPE Los Angeles Chapter	Clem Hiel	310 650-6938	Hiel.Clement@gmail.com
Shimadzu	Chris Macy	800 477-1227 x1859	cjmacey@SHIMADZU.com
SME	Dave Morton	313 425-3142	dmorton@sme.org
TA Instruments	Steve Hall	302 521-5778	SHall@tainstruments.com
TenCate Advanced Composites USA	Eric Howard	831 607-3851	E.Howard@TCAC-USA.com
Thermal Wave Imaging	Steve Shepard Alan Nusbaum	248 414-3730	Sshepard@thermalwave.com alannusbaum@thermalwave.com
Toray Composites (America)	Nate Monroe	253 320-8958	nmonroe@toraytca.com

Thank you all for your sponsorship and support of SAMPE-LA!!!

Thank you all for your sponsorship and support of SAMPE – LA!!!

Our list of sponsors is growing!!! Sponsors get monthly exposure in our mailing to over 750 members and associates of the local chapters of SAMPE. Sponsors also get a link to their corporate webpage via the SAMPE Los Angeles Chapter website.

For information on being a sponsor, please contact:

Howard A. Katzman

(310)336-5860