# National Test Pilot School

# **Operational Test and Evaluation Short Course**



# **Joining Instructions**

January 2019

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#### INTRODUCTION

Welcome to the National Test Pilot School! These notes will help you prepare to attend the Operational Test and Evaluation (OT&E) Course at the National Test Pilot School in Mojave, California. These notes are more specific than the General Information page on the NTPS website (www.ntps.edu) and take precedence. If you have any questions not answered by these notes, feel free to contact the school administration:

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### **Course Description**

The three-week Operational Test & Evaluation (OT&E) Course is designed to provide an understanding of how OT&E fits into the acquisition process, the interrelationships between Developmental Test & Evaluation (DT&E) and OT&E, and those concepts and issues specific to OT&E testing. The NTPS philosophy behind the OT&E course is to provide a fundamental knowledge and practical understanding of:

- How DT&E and OT&E fits into the weapon system acquisition/engineering processes
- DT&E and OT&E test processes
- Key differences between DT&E and OT&E requirements, planning and execution
- Overview of OT&E flight test theory and flight test techniques
- Emphasis on User and Operational Requirements
- Conduct, procedures and techniques of OT&E testing
- All aspects of OT&E test planning, execution, analysis, and reporting (PEAR)
- All aspects of test flight planning and mission execution
- Tools for effective OT&E test planning
- Generic flight test processes, concepts and practices
- OT&E Flight and Test Safety Processes and Lessons Learned

The course consists of classroom lectures, activities, and flight/ground test sorties that cover: basic flight test principles, processes, practices and concepts; demonstrations and project flights; flight simulation training to reinforce flight test techniques; logistics exercise to reinforce classroom instruction and provide "hands-on" logistics test experience; a student final project to further reinforce classroom instruction, and to logically carry a flight test scenario from requirements analysis to test planning to test conduct to data analysis to a final test report. During the OT&E final project exercise, the students plan, flight test, collect data, and report on aircraft system performance in meeting the stated user operational requirements/capabilities. During the 3-week course, student teams will plan/fly three flight test sorties and conduct two ground test activities, supervised by an NTPS instructor pilot.

Bottomline: The NTPS OT&E Course provides the tools, and prepares the student to plan, execute, analyze, and report on operational test events at their home station.

#### **Course Dates**

Your class will commence and end on the dates shown on the NTPS web site. The course begins at 8:00am Pacific Time on the first Monday and ends at 12:30pm on the Friday of the third week.

### **Training Standards**

The academic and flight instruction standards of the National Test Pilot School are set very high. Our instructors have an average of twenty-two years experience in flight testing of military and civilian aircraft (many have over 30 years of experience), and are well versed in classroom, aircraft, and flight instruction. NTPS insists our academic instructors are also experienced flight testers. This insures the DT&E and OT&E flight test experience is brought directly into the classroom. The NTPS academic subjects are taught towards the goal of practical applications in DT&E/OT&E flight testing and certification of aircraft and aircraft systems. The majority of the NTPS staff (pilots and flight test engineers) are graduates of a military test pilot school, bringing to NTPS a wide breadth of flight test and engineering experience.

#### STUDENT PREPARATION

### Language

English is used exclusively at the National Test Pilot School. The student must be proficient in speaking, understanding, reading, and writing in the English language. There is no time allocated during the course for enhancing a student's ability to use English. If English is a second language for the student, every effort should be made prior to arrival to ensure that language will not be an obstacle for the student. There are no pre-course preparation or "pre-reading" requirements for the NTPS OT&E Course.

#### **MISCELLANEOUS ITEMS**

#### Lodging

Students are responsible for arranging their own lodging, and a complete list of hotels is available on the NTPS web site (<a href="https://www.ntps.edu/information/general-information-a-lodging.html">https://www.ntps.edu/information/general-information-a-lodging.html</a>). Based on past experience, the school **highly recommends** staying in the city of Palmdale where the hotels are more closely grouped and are near multiple dining, shopping, social, and theater areas. This will **simplify** student homework exercises/ project test planning during the evenings and on weekends. Student feedback indicates there are no suitable hotels in Mojave, CA or Rosamond, CA that meet minimal lodging standards.

Four suite hotels (all rated highly by past students) may offer military rates or special rates to NTPS students. When making a reservation, ask for the "National Test Pilot School

Group Rate" – there is no guarantee of these rates. These hotels have also honored the "government rate" with past students. It is best to check directly with the hotel before booking your rooms.

**Embassy Suites,** 39375 5th Street West, Palmdale, CA 93551, Phone: (661) 266-3756. Suite with small fridge, free breakfast and free dinner snacks and reception. Check website for current rates.

**Staybridge Suites**, 420 West Park Drive, Palmdale, CA, (661) 947-9300 Suite with small kitchen and one queen bed. Check website for current rates.

**Oxford Suites**, 1651 W Avenue K, Lancaster, CA, (661) 949-3423. Suite with small kitchen and one queen bed. Check website for current rates.

**TownePlace Suites**, 2024 W. Ave J-8, Lancaster, CA, (661) 723-6709 Suite with small kitchen and one queen bed. Check website for current rates.

# **Dress Requirements**

The majority of NTPS students are active duty military or government personnel. Daily classes may be attended in your service's flight suit, service/utility uniform, or informal civilian clothing ("business casual"). Students are encouraged to bring/wear their service flight suit or their service utility uniform; however, this is **not** a school requirement. Non-military students may also wear their flight suit or utility uniform. Students are also encouraged to bring a set of cloths that can get dirty during the RML&A "remove and replace" maintenance exercise (flight suit or utility uniform is OK for this exercise).

# **Computers**

It is <u>strongly recommended</u> that students bring their personal laptop computer or tablet for use in class and their quarters, as well as a thumb drive. Course notes and test planning templates will be provided to the students on an NTPS thumb drive and a CD-ROM. NTPS has "loaner computers" available for students, but we've found most students prefer to bring their own personal computer. Students may also bring their government issued computer per their local security rules. NTPS has a robust wifi system that provides the students with connectivity with home or work.

#### Other

It is **highly recommended** to bring a digital camera (smart phone is OK) and pilot kneeboard. Although the school has kneeboards and cameras for the students' use, many aircrew prefer their own kneeboard and associated flying gear. NTPS will furnish headsets for each flight. You may bring your own flight headset, but your connections may not work in NTPS aircraft. You will not need to bring your flight helmet.

#### PERSONAL ITEMS

# **Passports and Visas**

For non-U.S. students, a visitor/training visa and passport is sufficient for the three-week course. Please use your country's standard process for obtaining a US visa – if required.

## ARRIVAL, CLASS START, and DEPARTURE

#### Arrival

Driving directions from Los Angeles International (LAX) to Palmdale/Lancaster: From the airport, take Interstate 405 north. I-405 will end and merge with I-5 North. Continue north 2-3 miles, taking the exit for Hwy 14 North to Palmdale. Lancaster is 5-6 miles further north from Palmdale on Hwy 14. Driving time is about 2 hours in moderate traffic, and longer during heavy traffic out of LA. See map below.

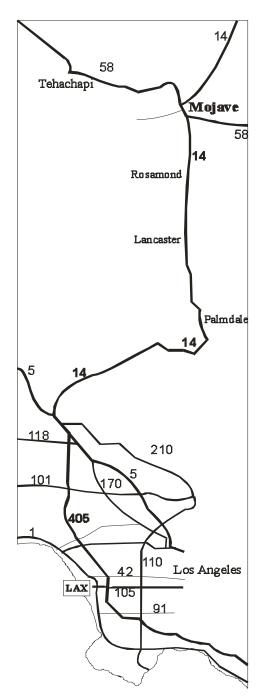
Direction to NTPS in Mojave, CA (allow 30-40 minutes) from Palmdale/Lancaster: Proceed north on Hwy 14 to Mojave – you will pass through the town of Rosamond, CA. Once in Mojave, turn right on Highway 58; proceed one mile and turn left onto the airport (you will see a NASA Convair-880 and F-4 at the airport entrance). At the first stop sign turn right and go to the end of the road; turn left and the school is the large brown hangar at the end (Bldg #72). A map with the school location and directions from LAX is on the following page.

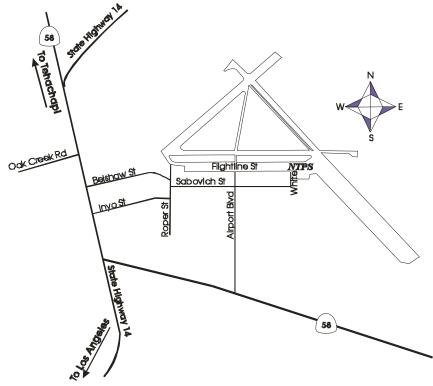
## **Class Start**

The first day of the course begins at 8:00am Pacific Time. After that, class days commence at 0800 hours and end at approximately 1700 hours. During courses in July and August, class days commence at 0700 and end at approximately 1600 Pacific Time.

### Departure

The course ends at 12:30 noon on Friday of the final week. Students need to be aware of severe highway congestion in the Los Angeles area and around LAX Airport on Friday afternoons and schedule their return flights according. Worst case planning scenario if you wish to fly home on Friday: it may take up to 4 hours to drive from NTPS to LAX on Friday afternoon, turn in your rental car and arrive at the terminal.





# **Driving directions from LAX are as follows:** From the airport, take Interstate 405 north. I-

405 will end and merge with I-5. Continue north, taking the exit for Highway 14 north to Palmdale/Lancaster. Total distance is approximately 100 miles. Driving time is about two hours except in heavy traffic periods.

Directions to Mojave: Continue north on Hwy 14 approximately 20 miles until arriving in Mojave. Turn right on Highway 58; go about one mile and turn left onto the airport. At the first stop sign turn right, and go to the end; turn left and the school is the large brown building #72 at the end.