



## **Air Force Test Center Overview**

For more than 80 years, Edwards Air Force Base -- home of the Air Force Test Center (AFTC) -- has been the location of more major milestones in flight than any other place on earth. Covering nearly 301,000 acres, Edwards is located in the Mojave Desert, adjacent to the largest dry lakebed in North America -- Rogers Dry Lake.

The AFTC assists in the Air Force's overall mission, defending the United States and protecting its interests through aerospace power, by ensuring current and future airmen have proven equipment and battle-ready weapons systems when operating in harm's way.

The AFTC is the Air Force Materiel Command center of excellence for research, development, and test and evaluation of aerospace systems for the United States and its allies. To support testing, the AFTC operates the Edwards Flight Test Range, which is comprised of 20,000 square miles of airspace, including three supersonic corridors and four aircraft spin areas. Besides flight test capabilities, Edwards has an array of ground test facilities. One of these facilities, the massive Benefield Anechoic Facility, allows for complete testing of a fully integrated avionics suite in a simulated flight environment, including electronic threats and computer software checkout.

The AFTC is hiring top engineers to test the most advanced technology in the world. Test the future as a federal employee with competitive performance based salaries, recruitment bonuses and many other perks!

## **Job Title**

Electro-optical Systems Flight Test Engineer

## **Job Description**

Electro-optical Systems Flight Test Engineers are involved in testing cutting edge advanced electro-optics, infrared and laser systems as well as directed energy technology. If hired, the applicant will join the civilian workforce of the Air Force Test Center (AFTC) located at Edwards Air Force Base, California. Engineers working for the AFTC are currently involved in testing various aircraft and systems for the Air Force. The aircraft currently under test include the F-16 Falcon, F-22 Raptor, F-35 Lightning II, B-52 Stratofortress, B-1 Lancer, B-2 Spirit, C-130 Hercules, C-17 Globemaster III, RQ-4 Global Hawk unmanned aerial system and many more. The electro-optical systems currently under test include the SNIPER and LITENING advanced targeting pods, the ROVER portable video downlink system, F-35 Electro-optical Targeting System (EOTS)

and Distributed Aperture System (DAS), RQ-4 MS-177 multi-spectral, Infrared Search and Track, Remote Vision Systems, helmets, displays as well as many other systems.

While employed by the AFTC, engineers receive the best training available and during the first year of employment are assigned a mentor. Engineers will learn to perform/master some or all of the following tasks:

- A) Research the system under test.
- B) Author test plans, safety packages, test reports, and flight cards.
- C) Perform ground tests while sitting in the aircraft
- D) Learn specific aircraft flight characteristics via high fidelity aircraft simulators (think video games on steroids)
- E) Conduct and/or monitor flight test missions from a mission control room (think Apollo 11)
- F) Participate in career specific and career broadening training
- G) Travel in the course of their duties
- H) Work with contractors, military personnel, and other government employees to develop the most efficient and effective test procedures and products
- I) Develop and operate custom data analysis tools, primarily in MatLab and Python, to analyze the data collected on test flights
- J) Develop and conduct lab testing
- K) Develop and conduct modeling and simulation
- L) Become familiar with and use statistics for data collection, analysis, inference and summaries
- M) Report on results
- N) Innovate and improve best practices for the future

This position is only open to US citizens and is geared more towards engineers with degrees in Optical, Electrical, Computer or Systems Engineering. Aerospace, Mechanical and Materials Science Engineering majors along with Physics and Applied Mathematics will be considered if they have aviation and/or military interest or background and are also interested in working with avionics and sensors.

This position consists of testing and evaluating contractor designed and manufactured systems. Though we don't design the systems, we do design the test and custom tools to analyze the data gathered from the test. It is however, very important to understand as much about the design and environmental physics as possible to better test and evaluate the system. Our engineers find working with the final system as integrated on its host aircraft as a near end-product challenging and rewarding. The job requires a great deal of interaction with aircrew and learning about how the system is used in combat. Our engineers are challenged with a great deal of responsibility early on including understanding the system and its requirements/specifications, designing a test within the trade space/constraints, deciding how to test and evaluate, analyzing the data and reporting on the results. In addition, creatively innovating with new ways of testing and evaluating through an innovation committee is highly encouraged for each engineer. We are currently building a state-of-the-art electro-optics/infrared/laser laboratory, acquiring complex modeling and simulation tools as well a large-scale optical field targets and custom in-flight infrared truth measurement systems for cutting edge test and evaluation techniques utilizing digital engineering. We also have a flying program so engineers can experience what aircrew experience in an actual back-seat flight(s) to better understand the unique flight environment of system operation/performance! Every day you will make a difference for your country! If you like to be challenged, want to be on the cutting edge of aviation and electro-optical/infrared systems, and you want a fun and exciting career, then the AFTC is the place for you.

<http://www.edwardscareers.com/>

<http://www.edwards.af.mil/>

[https://en.wikipedia.org/wiki/Edwards\\_Air\\_Force\\_Base](https://en.wikipedia.org/wiki/Edwards_Air_Force_Base)

## **Pay**

Here at Edwards AFB, we are not on the GS-scale. We are under a program called acquisition demo which is a contribution-based system that allows managers a lot more flexibility and responsiveness regarding employee pay over the GS system. Instead of grades and steps like the GS system, we have “broadband” categories for our engineers.

<https://www.opm.gov/policy-data-oversight/pay-leave/salaries-wages/salary-tables/pdf/2022/LA.pdf>

<http://acqdemo.dau.mil/>

Approximate 2023 Broadbands including Locality Pay

- NH-II (Entry level): \$80k - \$97k
- NH-III (Journeyman/Senior Engineers): \$90k - \$148k
- NH-IV (Technical Experts/Engineering Leadership): \$135k - \$183k+

Potential for recruitment incentives

Your placement in the NH-II band will be based on your GPA, work experience and other factors.

**Promotion to the NH-III band (6-10% increase) at 1 year.**

## **Benefits**

***Work Hours (combine all of these and you have serious work-life balance)***

- Work-life balance
- Flexible work schedule
- Telework
- Mon-Fri, rarely on Saturdays
- Overtime/credit hours for directed work (anything over 80 hours in 2 weeks)
  - Compensated for every hour worked
- Paid travel time to/from off-site duty locations
- Paid travel expenses/per diem for official travel
- Can take leave in conjunction with official travel! (Stay a week longer at no extra charge to you for travel, just take leave!)

***Paid Time Off (Leave)***

<https://www.opm.gov/policy-data-oversight/pay-leave/leave-administration/fact-sheets/annual-leave/>

<https://www.opm.gov/policy-data-oversight/pay-leave/leave-administration/fact-sheets/sick-leave-general-information/>

<https://www.opm.gov/policy-data-oversight/snow-dismissal-procedures/federal-holidays/#url=2015>

- Fitness/Wellness/Academics Time Paid (3 hrs/wk)
- 11 paid holidays per year
- 13 days paid sick leave per year (4 hours biweekly)
  - No limit to accumulation

- Paid Annual Leave
  - 13 days, first 3 years (4 hours biweekly)
  - 20 days, 4 - 14 years (6 hours biweekly)
  - 26 days, 15 years and over (8 hours biweekly)
  - Max carry over 240 hrs (30 days)
- 12 weeks paid (do not have to charge leave) upon birth or adoption of a child (paternity and maternity leave). Can be used consecutive or non-consecutive throughout a 1 year period.

### ***Life Insurance***

<https://www.opm.gov/healthcare-insurance/life-insurance/>

- No physical required
- Buyable in annual salary increments
- Costs only about 17 cents per \$1,000 biweekly

### ***Healthcare***

<https://www.opm.gov/healthcare-insurance/healthcare/>

<https://www.opm.gov/healthcare-insurance/dental-vision/>

Choice of 25 health plans

- Full range of premium / benefit tradeoffs
- Health Savings Account (w/ high deductible health insurance)
- Pre-tax employee payment
- **Air Force pays approximately 70% of premium (non-taxed)**
  - **Details Here (HMOs):** <https://www.opm.gov/healthcare-insurance/healthcare/plan-information/premiums/2016/nonpostal-hmo.pdf>
  - **Details Here (FFSs):** <https://www.opm.gov/healthcare-insurance/healthcare/plan-information/premiums/2016/nonpostal-ffs.pdf>

### ***Flexible Spending Accounts***

<https://www.opm.gov/healthcare-insurance/flexible-spending-accounts/>

- Child Care
- Health (dental, co-pays, Rx, glasses)
- Up to \$5K pre-tax per year

### **Continuing Education/Training**

- Long term full time available after 3 years and is competitive (leave for 1-2 years to get a master's/PhD degree full time, salary and tuition paid!)
- Partially paid night classes toward degree
- Leadership and Technical short courses
- Airmanship program
- Student Loan Reimbursement (existing student loans can be reimbursed)

### **Retirement**

<https://www.opm.gov/retirement-services/publications-forms/pamphlets/ri90-1.pdf>

Three-components: Social Security, Pension and Thrift Savings Plan (TSP)

- Retirement eligibility:
  - Full benefits at age 57 with 30 years of service

- Pension monthly payment to end of life (annuity)
- Supplement to replace social security from age 57-62
- Survivor spouse benefits
- 1% of your “high-3” average pay X years of creditable service (1.1% if retire after 62)
- Vested after 5 years of service
- Can continue full medical benefits into and through retirement

Thrift Savings Plan (similar to 401K)

<https://www.tsp.gov/index.html>

- Gov match 5% dollar for dollar
- Employee contribution up to (\$22.5k/yr 2023)
- Pre- or post-tax options (Traditional and/or Roth)
- 5 broad-based bond and stock funds
- Can borrow from accumulated funds
- Can still contribute maximum to external IRA (Roth or traditional) on top of maximum TSP

### **Other Perks**

- Day care available on base (Child Development Center)
- Elementary, middle and high school on base for children of civilian employee
- Potential for flying status and for incentive flight (backseat ride in an F-16)!
- Can get private pilot license on base through the aero club (can sign out general aviation aircraft)

### **Culture**

- Family mentality
- Wingmen take care of wingmen
- Everyone is very helpful with knowledge sharing and advice
- Teambuilding events
- Formal and informal mentoring
- Career guidance
- Awards and recognition (including time off and monetary awards)

### **Job Security and Career Movement**

- Our engineers have the ability to move between projects, disciplines and aircraft here on base, based on mission need and employee career goals
- Most engineers stay in a discipline on an aircraft for 3-5 years, but could be more or less based on mission needs and career goals
- When projects ramp up and down, we move engineers where work is needed here on base to avoid layoffs

### **National Security**

<https://www.opm.gov/investigations/background-investigations/>

- US Citizenship is required
- All engineering positions require a SECRET clearance
- Many require a TOP SECRET clearance
- Many engineers work in secure, isolated compounds with controlled access

- National security is at stake!