LUNEUS

PROPULSION ENGINEERS IN TEXAS REPORT

2025

THE LACK OF MID LEVEL PROPULSION ENGINEERS IN TEXAS

What We Are Noticing

Companies are reporting a severe shortage of mid-level propulsion engineers (5–15 years' experience), which are the exact profiles needed to lead subsystems, run hot-fire tests, and mentor junior teams.

Many seasoned experts from the Shuttle era have retired, and it takes years to rebuild that expertise. This is resulting in **a gap in propulsion experience** which is ultimately slowing down projects across the US Space sector.

Key Takeaways You Need to Know

You can't hire what you didn't grow

It takes 5–10 years of engine and test experience to reach mid-level capability. Companies that don't invest in early career pipelines are forced to buy the talent that everyone else is chasing.

The "missing middle" is slowing program

Texas propulsion teams are short on engineers with 5–15 years' experience, the layer that drives testing, integration, and mentoring. Without them, projects bottleneck and schedules slip.

Attrition is accelerating the crisis

With aerospace attrition approaching 14% annually, mid-level propulsion engineers are being poached faster than companies can replace them. This disrupts team continuity and slows critical projects.

HOW THIS AFFECTS YOU

Symptoms of the market

Propulsion hiring in Texas is hitting a breaking point:

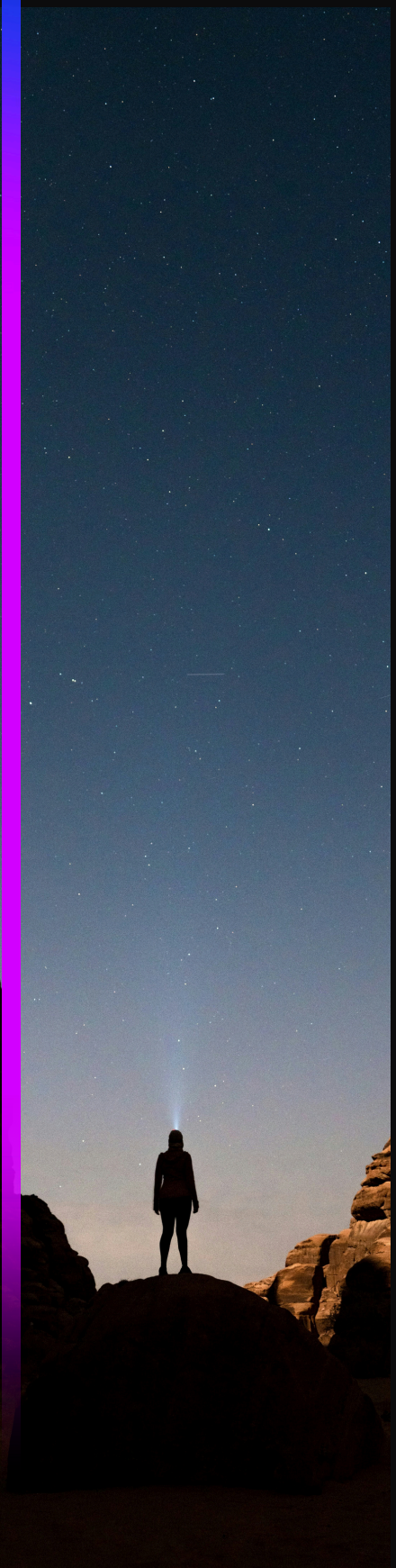
- Roles stay open for months. Engineering roles in the Energy and Defense sectors now take 67+ days on average to fill, according to Corporate Navigators' 2024 Recruiting Trends Report.
- Senior engineers are covering too much ground.
- Mid-level staff are being poached by defense programs offering clearance and pay premiums. Defense hiring has risen over 20% since 2022 (Deloitte, 2024).

Senior engineers are juggling tests, mentoring, and schedule slips, while juniors remain under-trained. Hiring managers say they feel "permanently behind" as roles stay open and workloads pile up.

Direct quotes from clients we are helping

- "Critical tests are sliding because we don't have enough experienced engineers on the floor. It's hurting delivery."
- "Our senior propulsion teams are drowning in design reviews, test plans, mentoring grads. They're burned out and projects are slipping."
- "We've had a propulsion opening live for seven months. We're bleeding schedule while defense seems to pick off every good candidate."

MARKET ANALYSIS



1

Defense driven hiring surges are draining the talent pool. With 14% attrition (as per Mckinsey & Company report), clearance restrictions, and defense contracts fueling demand in Texas propulsion hubs, workforce growth can't keep pace. Space and defense programs now compete for the same mid-level engineers, leaving commercial teams understaffed.

2

Government funding triggers talent sprints. Each new NASA or DoD propulsion program sparks immediate hiring surges. Contractors such as SpaceX, Blue Origin, Dynetics, Raytheon, and Northrop Grumman all compete for the same engineers at once to meet delivery deadlines. Over the next 1–3 years, NASA's nuclear propulsion work, Space Force launch initiatives, and new missile programs are expected to drive fresh hiring booms across the sector.

3

Attrition is hollowing out the mid-level layer. Turnover near 15% means experienced propulsion engineers are leaving for higher pay, shorter hours, or cleared defense roles, leaving commercial programs overstretched and behind schedule.

4

Clearance and policy barriers shrink the pipeline. ITAR and security requirements limit many propulsion roles to U.S. citizens, cutting off access to international graduates from universities like UT Austin and Texas A&M and tightening the market even further.

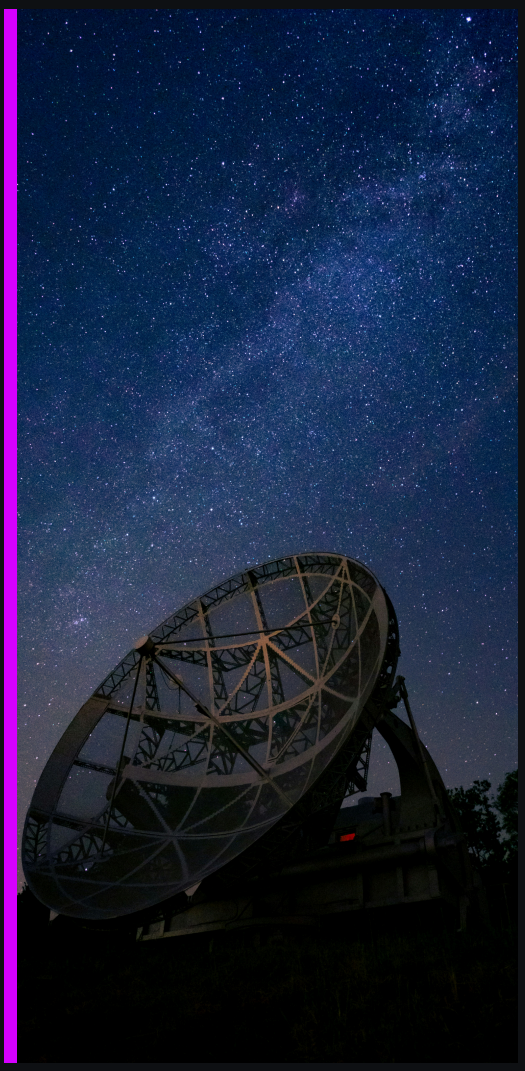
HERE'S WHAT YOU CAN DO

RECRUIT FROM ADJACENT INDUSTRIES AND RESKILL

Don't limit your search to those with "rocket" or "space" on their résumé. Candidates from automotive, turbomachinery, energy, or defense often have transferable skills in thermodynamics, combustion, and CAD. With focused onboarding and mentorship from senior engineers, they can reskill quickly for propulsion and bring valuable new perspectives to your team.

FOCUS ON CRITICAL ROLES FIRST

Identify the make or break positions for your organization (e.g. lead propulsion designer, test director, senior CFD analyst) and prioritize filling those even if it means premium offers. These roles are in short supply and high demand. Less critical roles (or those easier to source, like entry-level engineers or general analysts) can follow. Essentially, triage your recruiting efforts to tackle the scarcest skills first.



UTILIZE TECHNICAL RECRUITERS/PARTNERS WITH INDUSTRY KNOWLEDGE

Engaging a specialized recruiting partner can expand your reach quickly, especially for urgent hiring needs or a batch of roles to fill after a funding round or contract win

For example, **we have a bank of qualified propulsion engineers ready to provide within a week.**

HERE'S WHAT YOU CAN DO

PARTNER WITH UNIVERSITIES

Invest early to avoid the mid-level shortage. Build relationships with key universities through sponsored projects, co-ops, and guest lectures. Bringing engineers in at the junior level and training them through your own pipeline ensures you're creating the mid-level talent everyone else will be fighting for in five years, not chasing it. This also builds your brand and visibility on campus for future talent. From conversations with propulsion engineers, we know they are currently actively seeking co-op in AIT/Test.

TOP TEXAS UNIVERSITIES FOR PROPULSION TALENT YOU SHOULD BE INVOLED WITH

- University of Texas at Austin (Cockrell School of Engineering, Aerospace Engineering)
- Texas A&M University
- University of Texas at Arlington (UTA)
- University of Houston / UH

TIGHTEN YOUR HIRING WINDOW TO 15 DAYS

From conversations we have with propulsion engineers right now, they are all communicating the same issue, the lengthy processes. Candidates are repeatedly citing slow hiring as a top frustration.

You need to understand what factors propulsion engineers consider when looking for their next role.

Read on for our breakdown of salaries, hiring trends, industry trends and more.

WHAT YOU NEED TO KNOW

SALARY BREAKDOWNS

Texas propulsion engineers earn an average of ~$117,000, with most offers ranging between $107,000 and $129,000, and upper-end roles approaching $140,000.
Base pay is rising, but engineers consistently cite challenge, ownership, and culture as stronger motivators than salary alone.

DEMAND GROWTH

The global space propulsion market is projected to nearly double by 2030, growing at a ~11.9% CAGR driven by reusable rockets, satellite constellations, and electric propulsion systems (MarketsandMarkets, "Space Propulsion Market — Global Forecast to 2030").

FUTURE PIPELINE

The resulting mid-level gap will deepen unless companies invest early in university partnerships, co-ops, and internal training programs to build their own propulsion talent pipelines.

MISSION

From our research and qualification of propulsion engineers, we know that mission can often outweigh salary. They want to work on meaningful projects that excite them and keeps them interested.

> **Companies that lead with mission, ownership, and growth, not just pay, consistently attract and retain stronger talent.**

HIRING TRENDS

Engineering roles now take an average of 50+ days to fill, according to Corporate Navigators 2024 Recruiting Trends, and propulsion positions often stretch even longer due to clearance and niche skill requirements. According to Indeed's 'What Candidates Want from Employers' 2023 Survey, over 60% of candidates lose interest or drop out when hiring processes drag beyond two weeks. This underscores the need for faster, more decisive recruitment cycles.

Propulsion hiring is expanding beyond traditional aerospace backgrounds. Automotive, energy, and turbomachinery engineers are now top crossover targets.

INDUSTRY TRENDS

Texas propulsion hubs like McGregor and Houston are competing not only nationally, but against fast-growing clusters in Huntsville and L.A., which are pulling mid-level talent away with higher pay and more stable defense work.

At the same time, propulsion programs report increasing shortages of additive manufacturing engineers, test technicians, and materials specialists as 3D-printed and reusable systems become standard practice.

WHAT YOU NEED TO KNOW

THE CANDIDATE EXPERIENCE AT THE MINUTE

The candidate experience is poor.

Many of the engineers with the right level of experience , those mid-career specialists everyone wants , aren't actively looking on job boards or LinkedIn. The chances of these engineers clicking on a LinkedIn advert are very slim. They're not scrolling through job posts; they're waiting to be approached, informed, and inspired by opportunities that genuinely align with their ambitions.

Meanwhile, those who are searching describe a poor experience. Job descriptions are vague, communication is slow, and feedback is rare, leaving propulsion engineers disengaged and fatigued by the process. As a result, **the most capable candidates are the least visible and the least proactive.**

To reach them, companies must move beyond passive recruiting. It takes consistent, relationship-driven engagement over weeks or months to understand each engineer's motivations, project preferences, and long-term goals. You need to take a pro-active approach however, most internal hiring teams simply don't have the bandwidth or specialized understanding of propulsion engineering to do this effectively.

> **This is why partnering with recruiters who know the sector is becoming essential.**

THE LUNEUS WAY

What we do

With 20+ years in Space, Emerging Tech, and Aerospace, we're a trusted partner across the US. Our network spans across Airbus Defence & Space, Xiphos, Orbex and OHB, positioning us to represent your brand and mission effectively. We deliver embedded hiring solutions that help space start-ups stay on schedule , building teams, onboarding talent, and strengthening processes to keep programs moving.

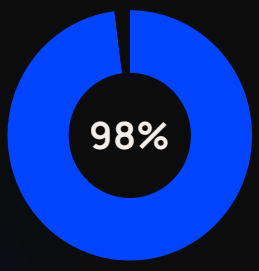
Purpose

We exist to ensure that space advancements are never stopped by a lack of access to the people they need.

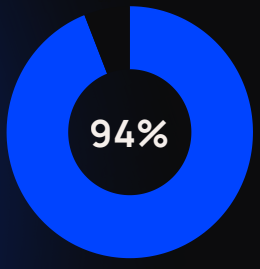
Mission

We're on a mission to partner shoulder to shoulder with space companies, helping to map, attract and secure mission-critical talent, built on data, insights and craft.

HOW OUR CLIENTS RANK US ON PROVIDING SUITABLE CANDIDATES FOR THE ROLE *



HOW OUR CLIENTS RANK US ON PROVIDING CANDIDIATES WITH A DETAILED JOB DESCRIPTION AND SALARY PACKAGE *



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* This data is collected from Recruiter Insider which is a third party benchmarking platform that tracks verified client and candidate feedback for recruitment agencies.