

FEEDING THE PIPELINE

DEVELOPING VIRGINIA'S AVIATION AND AEROSPACE WORKFORCE



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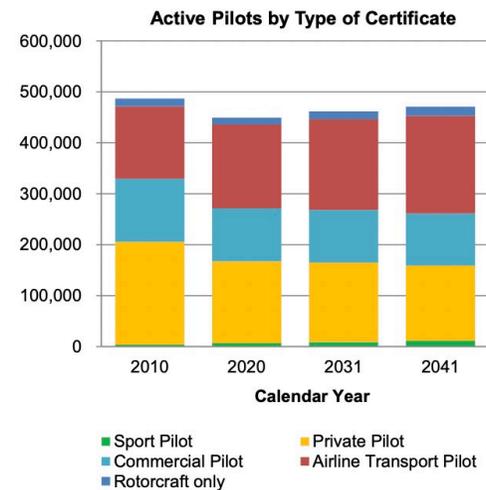
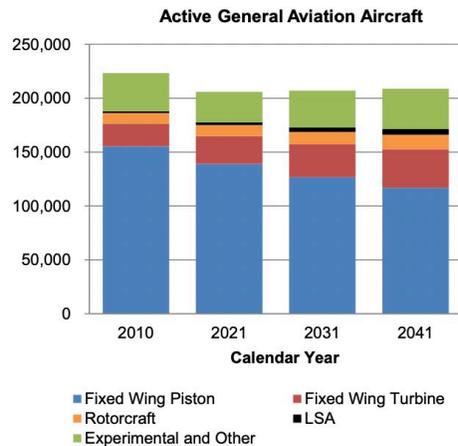
- Communities **large and small** across Virginia are supported by aviation and aerospace
 - Commercial Service, Reliever Airports, General Aviation – Regional & Community, and Local Service
- Opportunities
 - Growing Virginia's **infrastructure** and regional airports
 - Supporting continued improvement of airport and **flight safety** operations
- Challenges
 - **Pro-actively** meeting demand for **mechanics, pilots, and unmanned system pilots**
- Key: Funding Programs that **enhance workforce** and **attract Virginia's youth** toward aviation and aerospace careers, both of which are critical to the future success of the industry.



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- National Workforce Demand
 - Total active general aviation fleet by 2041 estimated to be **208,790** aircrafts
 - Total number of **general aviation hours flown** is predicted to increase in line with aircraft growth
 - Active general aviation pilots is projected to be around **470,000** by 2041
 - **More investment in workforce and training** is required to meet this demand



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- Communities **large and small** across Virginia are supported by aviation and aerospace
 - Virginia's **nine Commercial Service airports** create over **140,000 jobs** in the Commonwealth and **\$21.8 billion** in economic activity.
 - Virginia's **eight Reliever airports** contribute over **3,200 jobs** and nearly **\$700 million** in economic activity.
 - Virginia's **21 General Aviation Regional airports** generate over **1,400 jobs** and **\$160 million** in activity
 - Virginia's **14 General Aviation Community airports** create about **650 jobs** and over **\$70 million** in activity.
 - Virginia's **14 Local Service airports** contribute nearly **800 jobs** and over **\$160 million** in output.
- Opportunities
 - Growing Virginia's maintenance and avionics **infrastructure at** regional airports.
 - Supporting continued improvement of airport and **flight safety** operations.
 - Enhanced R&D, design and manufacture of unmanned aerial systems at Virginia's smaller airports.
- Challenges
 - **Pro-actively** meeting demand for **mechanics, pilots, and unmanned system pilots**

Key: Funding Programs that **enhance workforce** and **attract Virginia's youth** toward aviation and aerospace careers, both of which are critical to the future success of the industry.

Increased emphasis on STEM programs with a focus on aviation and aerospace in K-12, especially in grades 6 – 9.



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- Recovering from a Significant COVID Impact
 - Declines in commercial passenger traffic have caused increases in both unmanned areal systems and general aviation aircraft usage.
 - **Ripple effects** from losses in commercial air services has created an unparalled increase in use of drones and private aircraft for business use.
 - The aging of the mechanic workforce coupled with a surge in anticipated retirements is occurring at a time the industry prepares to accommodate a larger, newer, and more technologically advanced fleet of aircraft.
 - According to a recent Oliver Wyman survey, sixty-four percent of the surveyed executives expect their companies to hire mechanics over the next 3 years to expand the workforce; another 23 percent say they will hire simply to maintain their numbers. And 72 percent of those surveyed expect the search for qualified candidates to get much harder.



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- Since COVID, drones are now appearing in many different industries, including inspections, construction, real estate, filmmaking, and advertising.
- In Virginia, Companies such as Amazon and Google are testing ways to deliver packages via drone in the future.
- Companies such as Textron and Boeing are designing large scale unmanned aircraft for civilian and defense in the above 50-pound category.
- Some cities are moving to restrict drone use.
- A 2013 report released by a trade group, the Association for Unmanned Vehicle Systems International, projected more than 100,000 new jobs in unmanned aircraft by 2025.
- Now projections show more than 800,000 new jobs by 2030.



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- According to Boeing's [pilot and technician outlook report](#), the aviation industry is facing a demand of 769,000 A&P mechanics by 2038. This number is worldwide, but North America alone will have a demand for 193,000 mechanics.
- A&P Mechanics are needed to maintain aircraft and make sure they're safe
- More jobs are available than ever before
- More people are retiring than are entering the field
- As the aviation industry grows, so does the demand for mechanics

National estimates for Aircraft Mechanics and Service Technicians:

Employment estimate and mean wage estimates for Aircraft Mechanics and Service Technicians:

Employment (1)	Mean hourly wage	Mean annual wage (2)
128,300	\$ 33.19	\$ 69,040



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- According to the Bureau of Labor Statistics, overall employment of airline and commercial pilots is projected to grow 13 percent from 2020 to 2030, faster than the average for all occupations. This does not account for the increased number of private citizens learning to fly in support of individual business demands.
- About 14,500 openings for airline and commercial pilots are projected each year, on average, over the decade. Many of those openings are expected to result from the need to replace workers who transfer to different occupations or exit the labor force, such as to retire.

According to Oliver Wyman there is a global gap of 34,000 pilots by 2025. This could be as high as 50,000 in the most extreme scenarios. Pre-pandemic estimates noted a demand as high as 400,000 pilots by 2030.



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- **Retail Sales and Use Tax Exemption**

- **HB 462 (Austin) Sales and use tax exemption; aircraft components. Eliminates the sunset date for the sales and use tax exemption for parts, engines, and supplies used for maintaining, repairing, or reconditioning aircraft or any aircraft's avionics system, engine, or component parts.**

- **[02/08/22 House: VOTE: Block Vote Passage #2 \(99-Y 0-N\)](#)**

- **[02/17/22 Senate: Passed Senate with amendment](#)**

- **SB 701(Kiggans) Sales and use tax exemption; aircraft components. Eliminates the sunset date for the sales and use tax exemption for parts, engines, and supplies used for maintaining, repairing, or reconditioning aircraft or any aircraft's avionics system, engine, or component parts.**

- **[02/04/22 Senate: Read third time and passed Senate \(39-Y 0-N\)](#)**



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- **VABA Budget Requests**

- Budget Item 0#8s (Kiggans) **Retail Sales and Use Tax Exemption** - Eliminates Sunset Date for Aircraft Components (language only)
- Budget Item 142 #12s (Kiggans) **Virginia Space Grant Consortium - Pathways Expansion** \$200,000 GF; Budget Item 142 #17h (Sickles) SCHEV - JCOTS Pathways Flight Academies \$200,000 GF
- Budget Item 179 #2s (Kiggans) \$337,200 GF; Budget Item 142 #13h (Sickles) SCHEV - JCOTS Aviation and Aerospace Portal \$29 **Virginia Space Grant Consortium - Online Workforce Portal** 0,000 GF
- Budget Item 179 #3s (Kiggans) **Virginia Space Grant Consortium - Program Expansion** \$340,000 GF; Budget Item 142 #15h (Sickles) SCHEV - JCOTS Virginia Aviation Scholars Program \$340,000 GF
- Budget Item 179 #4s **Virginia Space Grant Consortium - Internship Expansion** \$264,000 GF; Item 142 #14h (Sickles) SCHEV - JCOTS Aviation and Aerospace Internships \$264,000 GF
- Budget Item 179 #5s **Virginia Space Grant Consortium - Program Expansion** \$168,000 GF; Budget Item 142 #16h (Sickles) SCHEV - JCOTS Expand BLAST \$168,000 GF



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