Press Release

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VFS Releases Report on Vertical Flight Workforce:
“Diversity, Equity & Inclusion is Vital”

Fairfax, Virginia, Oct. 11, 2022 — The Vertical Flight Society (VFS) has today published the results of a groundbreaking study, “2022 Vertical Flight Workforce Report: Diversity, Equity & Inclusion is Vital.” The study was conducted for VFS by HYSKY Society, both of which are 501(c)(3) educational non-profit organizations. The 28-page report is available at www.vtol.org/workforce.

The results of a VFS workforce analysis in January 2020 indicated that the vertical takeoff and landing (VTOL) technology workforce is at a critical juncture. At the same time that the US Department of Defense has kicked off several multi-billion dollar rotorcraft acquisition efforts under the Future Vertical Lift (FVL) initiative, and traditional aerospace and defense (A&D) companies struggle to fill hundreds of vacancies seeking talented VTOL engineers, the “Electric VTOL Revolution” also requires thousands of engineers. The most expedient way to achieve the needed increase in VTOL talent is by transforming the current workforce through purposeful diversity, equity and inclusion (DEI) initiatives.

“This report by HYSKY is the first time that the aerospace and defense sector has officially discussed intersectionality — how different experiences overlap — which is essential to capturing data and identifying a root cause,” said VFS Executive Director Mike Hirschberg. “We hope that this study will help to focus attention on how the VTOL industry can improve its ability to attract and retain top talent.”

VFS estimates that each clean-sheet civil VTOL aircraft development requires on the order of $1B, a decade of development, and 1,000 employees to get to certification. While several eVTOL companies have been working for several years, many additional developments are also underway. Military rotorcraft developments typically require significant more time, money and employees. VFS forecasts 10,000 additional engineers (over and above the current workforce level) are needed in the next decade to support planned military and civil rotorcraft developments, as well the burgeoning eVTOL/advanced air mobility (AAM) market.

Key findings from the report include:

- Significant additional funding for academia is needed to train enough highly skilled engineers to meet industry demands.
- Training new engineers is not enough. New engineers must also be attracted and retained.
- The most impactful metric to predict employee retention is whether or not employees feel valued and appreciated at work. An employee’s perceived value is more important than their salary amount.
- It costs a company about $1M to replace 1 highly skilled engineer, so high attrition rates can be detrimental.
The legacy Aerospace and Defense (A&D) industry has 2x the attrition rates than that of the national average. The Advanced Air Mobility (AAM) sector has 4x attrition rates of the national average. Workplace ostracism is likely a major cause.

Workplace ostracism, or “social death,” is the number one predictor of attrition rates. If it can be predicted, it can be mitigated.

Successful programs exist to mitigate workforce ostracism.

Workforce ostracism could result in a threat to national security.

A&D companies that have equitable representation at the highest level will be the most competitive and most likely to succeed in the coming years. Conversely, companies without equitable representation at the highest levels will likely atrophy and die.

Examining the challenges of the future vertical workforce is not about being “woke,” it’s about collecting and analyzing data to understand what causes someone to be attracted to a company, feel valued, and want to stay.

“The greatest threat to the A&D industry is the lack of DEI in the workforce, especially in executive and leadership positions,” said Danielle McLean, CEO of HYSKY. “Lack of diversity leads to underrepresented groups experiencing workplace ostracism, which is the most harmful type of workplace mistreatment and most detrimental to a company’s bottom line. The good news is that workforce ostracism is predictable, measurable and preventable, so addressing DEI challenges aggressively is key to maintaining a strong A&D industry.”

About the Vertical Flight Society:

VFS was founded as the American Helicopter Society in 1943 by the visionaries of the early helicopter industry, who believed that technological cooperation and collaboration were essential to support this new type of aircraft. Today, history is repeating itself, with VFS playing a similar role helping to advance today’s revolutionary eVTOL aircraft and advocating for the vertical flight profession.

Since VFS began supporting the Electric VTOL Revolution in 2013, the Society has been the leading voice for the eVTOL community in industry, academia and government. VFS hosted the world’s first eVTOL technical meeting in 2014, launched the world’s first eVTOL eNewsletter in 2016, world’s first dedicated eVTOL website in 2017, the world’s first eVTOL short course in 2018, and North America’s first hydrogen aviation symposium in March 2022.

VFS is @VTOLsociety on social media: Facebook, Instagram, LinkedIn, Twitter, Vimeo and YouTube.

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