VERTICAL AVIATION INTERNATIONAL

POWER UP

Rick Kenin

VAI Chairman Aims for New Heights

JUN 2025

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FEATURES

50

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DEPARTMENTS

On the Cover

Katie Reilly, Photographer

Rick Kenin stands at Boston MedFlight headquarters at Hanscom Field (KBED) in Bedford, Massachusetts, on Apr. 11, 2025. Behind him, pilot in command Matt Koerber conducts his daily start-of-shift preflight inspection and hover checks in one of the company's seven Airbus H145s. Read about VAI's new chairman and his vision for VAI on p. 28.

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POWER UP MAGAZINE

June 2025 | Vol. 1 No. 4
A Quarterly Publication of Vertical Aviation International

Advertising Sales: Contact Sales@verticalavi.org or call 352-388-7031.

Postmaster: Send all address changes and correspondence to:
POWER UP Magazine
1920 Ballenger Ave., 4th Flr., Alexandria, VA 22314-2898
703-683-4646 | Info@verticalavi.org | verticalavi.org

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POWERING UP

Reflection and Anticipation

Our work in this past year sets up our future success.

By Mark A. Schlaefli

AS MY ONE-YEAR TERM AS CHAIR of the Board of Directors of Vertical Aviation International (VAI) draws to a close, it's natural to pause and reflect on the journey we've taken together, as a community and as an association. This past year has been transformational, marked by significant milestones, renewed connections, and resilient progress.

Our industry has long been shaped by innovation, adaptability, and collaboration, and over the past 12 months, these qualities have been at the forefront of everything we've done. From our award-winning rebranding efforts to critical policy discussions shaping the future of vertical flight integration, VAI stands at the nexus of progress and industry evolution.

A standout moment this year was our very first VERTICON, in Dallas, Texas—a city with strong ties to our industry, making it the perfect location for this event. VERTICON 2025 brought together under a single roof industry leaders, pilots, aviation mechanics and engineers, manufacturers and suppliers, and enthusiasts, revealing an industry running at pre-pandemic levels of activity. With nearly 15,000 attendees and hundreds of exhibitors from across the globe, VERTICON reaffirmed its status as the world's largest, most dynamic vertical aviation conference and trade show.

Our year wasn't without change, which so often is the catalyst for growth. With James Viola departing in March to become president and CEO of the General Aviation Manufacturers Association (GAMA), VAI was given an opportunity to identify the next leader who will guide the staff in their work to advocate, promote, and protect vertical aviation. And in the tight-knit community of general aviation, having a rotorhead such as James leading GAMA is an overall positive for our industry.

After we learned of James's impending departure, the Board

MARK A. SCHLAEFLI, the owner and operator of Dakota Rotors, a Part 135/133 operator in the Upper Midwest and Mountain West, began his one-year term as chair of the VAI Board of Directors on Jul. 1, 2024. Mark holds an ATP rotorcraft certificate as well as instrument, CFI, and CFII ratings.

of Director's Search Committee in January initiated the process for selecting his successor. We started by developing a comprehensive proposal that summarized the role's responsibilities and the desired qualities of the winning candidate, and then selected a top-notch recruiting firm to assist in the process. We're now interviewing outstanding candidates and are looking forward to having the right person in place in the near future.

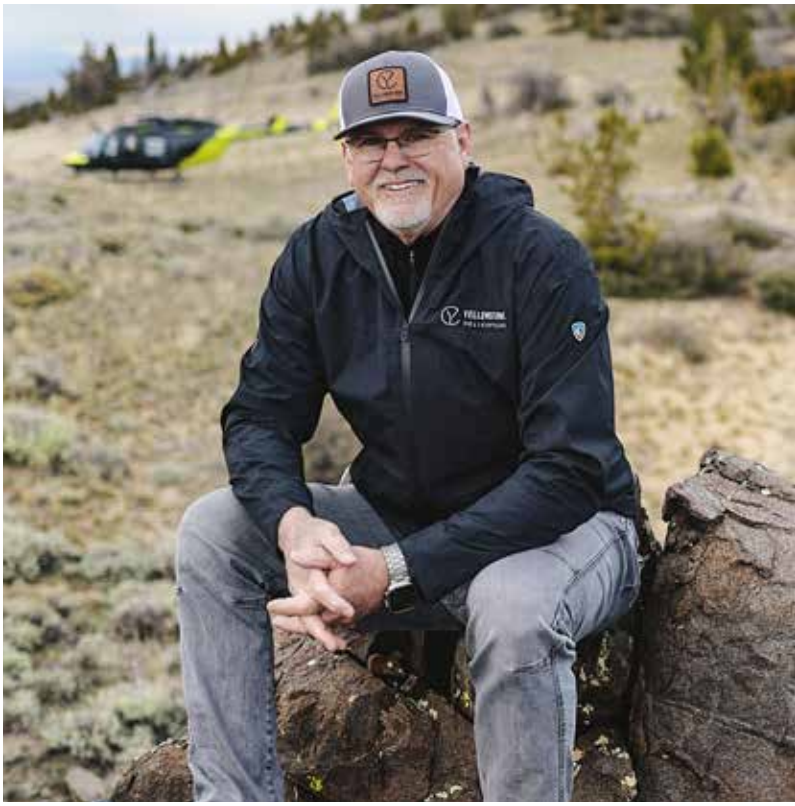
Once in place, the new president and CEO will be tasked with continuing to drive our strategy to unite the industry and bring exceptional value to our members. The individual selected for this role will be ably assisted by VAI's talented staff, all leaders in their respective positions but accustomed to working as one team, with efficiency and proficiency, to accomplish the association's purpose.

VAI continues to improve its value for members, launching new benefits and services and growing our list of education and networking opportunities. We now have six providers who can help you meet the FAA 2027 mandate for safety management systems, and we're working diligently to create new workforce development programs, such as mentorship initiatives and expanded industry pipelines. As various groups come up with new tactics to limit our access to airspace, the VAI Government Affairs team ensures we stay informed and flying.

VAI stands at the nexus of progress and industry evolution.

Perhaps most importantly, this year reminded us of the resilience that defines the vertical aviation community. Whether responding to natural disasters, supporting wildfire suppression efforts, or delivering critical care via air ambulance services, we rose to the occasion time and time again. Behind every flight is a team of professionals—dispatchers, mechanics and engineers, and pilots—working tirelessly under pressure to ensure safety and success while providing enormous benefit to society.

Although challenges remain, the future of vertical flight is quite bright. VAI is proud to lead the global vertical aviation community—not only as an advocate, educator, and gathering place but as a champion for every individual and



organization working to elevate the standards of flight.

Looking ahead, we are more committed than ever to fostering innovation, strengthening our community, and leading the way into a new era of vertical aviation. Here's to a year well lived—and to an even more ambitious and inspired year to come.

As I wrap up my last column for POWER UP as chair, I want to pass the torch to the incoming chairman of the VAI Board of Directors, Rick Kenin of Boston MedFlight. Rick was elected to the position, along with the rest of the board's officers, at our board meeting during VERTICON 2025 (see "Jul. 1 Sees New Board, Officers" on p. 12).

Our association will be in great hands with Rick, and I'm excited to see him flourish in the role of guiding our strategy and furthering our initiatives in support of our membership. Thank you, Rick, for your willingness to serve and guide the Board of Directors, the association, and the industry.

As for me, while I've been humbled by the experience of leading the association, it was also a great joy to serve our community of vertical aviators. I will be forever grateful for this opportunity granted to me by you, the VAI members.

Some Positive Signs

Despite challenges, much federal, state activity in first half of year supports helicopter operations.

By Cade Clark, Theresa Marr, and Katia Veraza

WITH ALL 50 US STATE LEGISLATURES IN SESSION and the federal government busy as well, the first half of 2025 has been exceptionally active for the VAI Government Affairs team. The team has tracked and analyzed nearly 150 aviation-related bills across the country during the period. Below are key highlights of those efforts, including both challenges the association overcame and legislation we strongly supported.

Key Legislative Wins and Challenges

Hawaii: Defending Federal Preemption

- **H.B.810** sought to create a private right of action allowing individuals to sue helicopter operators for alleged sound violations of federal aviation law—an overreach that conflicted with federal preemption. VAI successfully opposed the bill, which was ultimately withdrawn following direct outreach to state legislators and the bill sponsor.
- **S.B.1197** would have imposed excessive state-level insurance requirements on tour aircraft operators, another area preempted by the FAA. After the bill nearly passed in 2024, VAI mobilized early in 2025 to stop the legislation through targeted advocacy and engagement, resulting in its defeat.

New York: Protecting Access and Uniformity

- **A.2583/S.1140,** which proposed a noise tax on nonessential helicopter and seaplane operations in cities with populations over 1 million, made it to the state's appropriations bill. VAI, working with legislative partners, successfully removed this language from the final appropriations bill.
- **New York City Council Int. 0026-A** significantly restricts nonessential helicopter operations at city-managed heliports, with the eventual aim to allow only fully electric aircraft. VAI led a coalition of aviation organizations—including the Aircraft Owners and Pilots Association, Eastern Region Helicopter Council, General Aviation Manufacturers Association, National Air Transportation Association, and National Business Aviation Association—to secure amendments preserving limited operations and enabling continued infrastructure development. The law remains problematic, underscoring the need for reaffirmation of federal authority over airspace.

Washington: Opposing Harmful Taxes

- **S.B.5801** imposes a 10% tax on noncommercial aircraft sales over $500,000, effective April 2026. VAI and others argued that the bill misclassifies essential aircraft as luxury items, threatening access and economic activity. A coalition including VAI urged Gov. Bob Ferguson to veto the measure, but it became law in May. VAI and the broader aviation community will continue efforts to repeal or revise the tax in the next legislative session.

Legislation VAI Supports

Montana: Protecting ADS-B Data Use

- **H.B.571** prohibits the use of ADS-B data by state agencies or private entities to calculate or impose fees on aircraft owners or operators flying in Montana. VAI supports this bill for preserving the original safety intent of ADS-B technology and preventing misuse that could burden operators.

Utah: Advancing AAM Integration

- **S.B.96,** signed into law, directs the Utah Department of Transportation to launch a statewide public education campaign about advanced air mobility (AAM). The bill updates state aeronautics law, defines AAM terms, and requires the development of a tool kit with model ordinances and best practices for local adoption. This effort positions Utah as a national leader in AAM readiness and public engagement.

A modernized, efficient, and unified ATC network is essential to ensuring continued safety, economic competitiveness, and operational resilience in the national airspace.

VAI continues to monitor state legislation daily to ensure that policies support aviation growth while addressing community concerns.

We encourage our members to stay involved—if you're aware of any legislation in your state that may affect vertical flight, or if you have questions about specific bills, please contact Katia Veraza, assistant director of government affairs and regional relations, at KatiaV@verticalavi.org.

Your feedback strengthens our advocacy endeavors and ensures that state policies support the safe and innovative future of vertical aviation.

In the federal arena, the new Congress and administration have spurred exceptional levels of activity so far this year. Congress is working through a number of issues, but one especially worth highlighting is the Trump administration's work on modernizing the country's air traffic control (ATC) system.

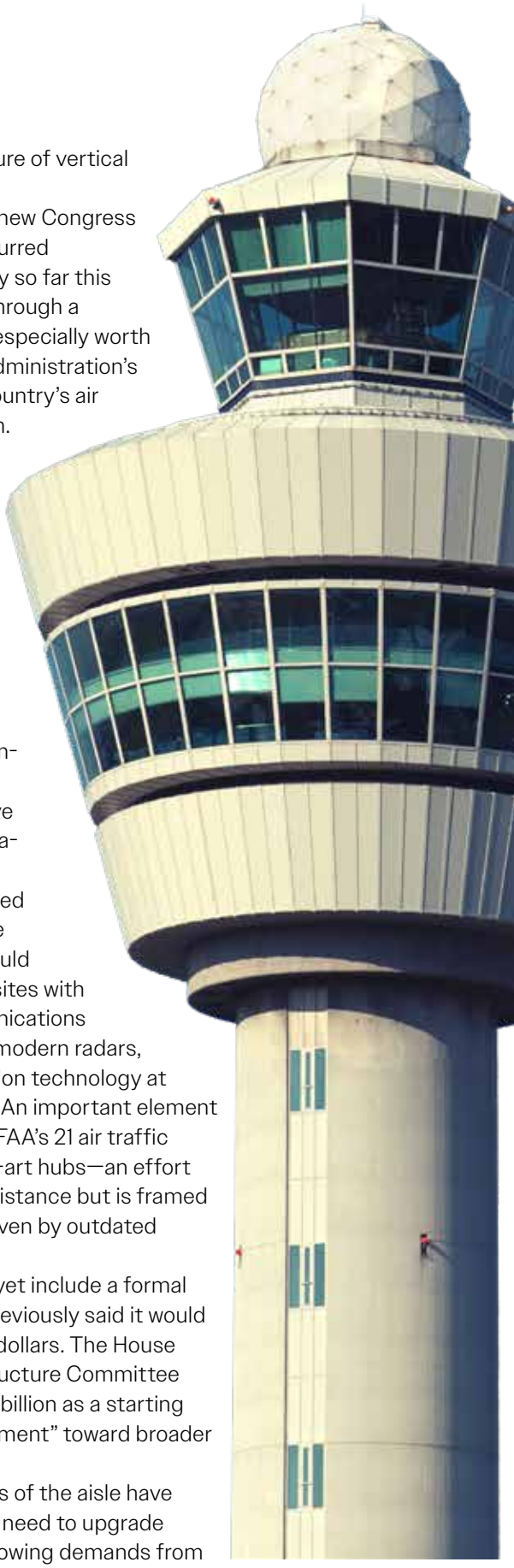
ATC Modernization Plans Unveiled

Transportation Secretary Sean Duffy recently unveiled a sweeping proposal to overhaul the nation's aging ATC infrastructure, urging Congress to approve full funding up front and streamline permitting processes to avoid the delays that have plagued previous modernization efforts.

The plan, which is intended to be implemented over the next three to four years, would upgrade more than 4,500 sites with new radios and telecommunications systems, deploy over 600 modern radars, and expand surface detection technology at airports to enhance safety. An important element includes consolidating the FAA's 21 air traffic centers into 6 state-of-the-art hubs—an effort that could face regional resistance but is framed as a technical necessity driven by outdated infrastructure.

While the plan does not yet include a formal cost estimate, Duffy has previously said it would require "tens of billions" of dollars. The House Transportation and Infrastructure Committee has already approved $12.5 billion as a starting point, calling it a "down payment" toward broader modernization.

Lawmakers on both sides of the aisle have long recognized the urgent need to upgrade ATC systems to support growing demands from



traditional aviation and emerging technologies such as drones and advanced air mobility. As the aviation industry evolves, a modernized, efficient, and unified ATC network is essential to ensuring continued safety, economic competitiveness, and operational resilience in the National Airspace System.

Furthermore, the FAA intends to replace more than 25,000 aging radios and nearly 800 voice switches—many of which are over 30 years old—with modern digital systems that meet current cybersecurity and interoperability standards. Without accelerated funding, these existing components would remain into the 2030s, threatening system stability and the safe integration of new airspace users such as drones and AAM aircraft.

In addition to infrastructure upgrades, the FAA plan proposes deploying Surface Awareness Initiative (SAI) technology at 200 additional airports, especially those currently lacking surface surveillance tools. This follows close-call incidents that highlight the need for real-time situational awareness on airport surfaces to prevent runway incursions.

The FAA also plans to streamline and replace outdated automation platforms such as STARS (Standard Terminal Automation Replacement System) and ERAM (En Route Automation Modernization) with a unified system capable of handling growing traffic volumes and emerging-technology integration.

Modern Skies Coalition Supports ATC Upgrade

VAI is a member of the Modern Skies Coalition, an organization that advocates to Congress on the need to modernize the US ATC system. In early May, VAI joined nearly 60 aviation organizations in signing the Modern Skies Coalition letter supporting Secretary Duffy's plan.

The coalition has outlined three goals:

- Replace the antiquated technology that runs the US ATC system, which will require significant investment from the federal government, while upholding the highest standards of safety.
- Divest old and outdated technologies and facilities to reduce costs and inefficiencies while strengthening the industry's competitiveness.
- Foster understanding that it is paramount for Congress, the administration, and the aviation community to come together to embrace bold, decisive action that ensures we don't squander this opportunity to enhance aviation safety.

The letter also applauded the work of House Transportation and Infrastructure Committee Chairman Sam Graves (R-Mo.-06) in moving forward the $12.5 billion "down payment" to address systemic, ongoing problems.

VAI continues to engage directly with congressional leaders and administration officials to ensure that low-altitude and vertical flight operations are fully represented and prioritized throughout the modernization process.

As always, we welcome your questions and concerns at Advocacy@verticalavi.org.

Cade Clark *is VAI's chief government affairs officer.* ***Theresa Marr*** *is VAI's director of government affairs.* ***Katia Veraza*** *is VAI's assistant director of state government affairs and regional relations.*

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VAI BRIEFS

Jul. 1 Sees New Board, Officers

VAI IS USHERING IN A NEW ERA OF LEADERSHIP and governance designed to reflect the full breadth of the global vertical aviation industry. Recently, the association announced sweeping updates to its board of directors—through both newly elected officers and the implementation of a new governance framework.

These changes mark the first board elections under VAI's restructured bylaws, which expand board membership to ensure balanced representation of vertical aviation operators of all sizes and mission types, including government and public-service organizations.

Complementing this board structure is the announcement of the 2025–26 Executive Committee, which will provide strategic leadership for the association during the coming year. The Executive Committee and newly elected directors will assume their roles on Jul. 1, 2025. Please see the page opposite for the full list of the VAI Board of Directors for 2025–26.

Executive Committee

Rick Kenin, Chairman. Kenin currently serves as COO of Boston MedFlight, a nonprofit emergency and critical-care medical transport organization based in Bedford, Massachusetts. You can read more about his career and plans for VAI in "Rick Kenin: Taking VAI to New Heights," on p. 28.

Brian Jorgenson, Vice Chairman. Jorgenson is the COO and co-owner of Timberline Helicopters in Sandpoint, Idaho. Since founding the company in 2004 with a single Kaman K-Max, he and his wife, Ammy, have grown Timberline into a prominent utility operator with a diverse fleet that includes MD 500s and Sikorsky UH-60 Black Hawks. With more than 19,000 flight hours, Jorgenson brings deep operational and business expertise to the board.

David McColl, Treasurer. McColl is with LiveWire Aviation in Homosassa, Florida, which specializes in external-load operations. His aviation journey began at Bristow Academy in Florida, where he began flight training in 2009. McColl brings a safety-first perspective shaped by years of real-world utility aviation operations.

Mark Schlaefli, Assistant Treasurer. Schlaefli, who will complete his term as 2024–25 VAI chair on Jun. 30, is the owner and operator of Dakota Rotors, a Part 135/133 operator in the Upper Midwest and Mountain West United States. Mark is assuming the role of assistant treasurer of the board to fill in for former board member Paul Gottwig, who has taken a position with a nongovernment service operator and thus could no longer represent that sector on the board.

"These board officers represent the best of vertical aviation—leadership, vision, and a deep commitment to safety and innovation," says Mike Hertzendorf, VAI COO. "They will be instrumental in executing VAI's strategic priorities and ensuring our industry's continued growth and resilience."

In keeping with its commitment to ensuring that the board echoes the composition of VAI's operator members, the association's operator members *(Continued on p. 14)*

Vertical Aviation International 2025–26 Board of Directors

CHAIRMAN
Rick Kenin
Boston MedFlight
Bedford, Massachusetts, USA
Large Commercial/Private Operator

VICE CHAIRMAN
Brian Jorgenson
Timberline Helicopters
Sandpoint, Idaho, USA
Medium Commercial/Private Operator

TREASURER
David McColl
LiveWire Aviation
Homosassa, Florida, USA
Medium Commercial/Private Operator

ASSISTANT TREASURER
Mark A. Schlaefli
Dakota Rotors
Custer, South Dakota, USA
Large Commercial/Private Operator

DIRECTOR
Nicole Battjes
Rainbow Helicopters
Honolulu, Hawaii, USA
Large Commercial/Private Operator

DIRECTOR
Chris Baur
Hughes Aerospace Corp.
Houston, Texas, USA
Small Commercial/Private Operator

DIRECTOR
Jan Becker
Swashplate
Yandina Creek, Queensland, Australia
Small Commercial/Private Operator

DIRECTOR
Stephen Lee
National Aeronautics and Space Administration
Kennedy Space Center, Florida, USA
Government Service Operator

DIRECTOR
Brandi Rector
Semper Fly Helicopters
Norman, Oklahoma, USA
Medium Commercial/Private Operator

DIRECTOR
Randy Rowles
Helicopter Institute
Fort Worth, Texas, USA
Large Commercial/Private Operator

DIRECTOR
Mark Wegele
Salt River Project
Phoenix, Arizona, USA
Government Service Operator

DIRECTOR, CORPORATE AFFAIRS & CORPORATE SECRETARY
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Vertical Aviation International
Alexandria, Virginia, USA

SPECIAL ADVISOR – EMERGING TECHNOLOGY
Michael Romanowski
Slate Run Strategies
Nokesville, Virginia, USA

SPECIAL ADVISOR – INTERNATIONAL
François Lassale
SGI
Denpasar Selatan, Bali, Indonesia

LEGAL ADVISOR
Sarah E. Mooney
Webster, Chamberlain & Bean
Washington, D.C., USA

elected four new directors to three-year terms that begin Jul. 1, 2025:

Director, Small Commercial/ Private Operator

Jan Becker (Swashplate, Yandina Creek, Queensland, Australia) is CEO of Swashplate, a boutique helicopter company. She began her career as a midwife and later also became an accomplished pilot and business owner at Becker Helicopters Pilot Academy. Becker previously served on the board for six years and in 2019 was elected board chair, the first woman to hold that position in more than 30 years (but not the last).

"As an international member of the VAI Board, I'm proud to bring a global perspective to our work," says Becker. "The challenges and opportunities in vertical aviation are shared across borders, and I'm committed to contributing fresh ideas and practical insights that reflect the diverse needs of operators worldwide."

Chris Baur, FRAeS (Hughes Aerospace Corp., Houston, Texas) is president and CEO of the largest non-FAA provider of global instrument flight procedures for helicopters, airplanes, and electric vertical takeoff and landing aircraft. A pioneer in the global Performance-Based Navigation (PBN) movement, Baur is an ATP-rated pilot with over 45 years of experience spanning military, law enforcement, Part 135, and Part 121 operations. He currently flies Robinson R66, Boeing 787, and TBM turboprop aircraft.

"One of my top priorities is strengthening VAI's advocacy," Baur notes. "With an engaged membership, we must leverage our collective expertise to shape policies that benefit both our members and the broader aviation industry." In addition to his role at Hughes Aerospace, Baur serves as the industry cochairman of the US Helicopter Safety Team.

Director, Medium Commercial/ Private Operator

Brandi Rector (Semper Fly Helicopters, Norman, Oklahoma), a US Marine Corps veteran and aviation professional, brings over 17 years of experience in aviation operations, maintenance, flight training, and business management. As owner and CEO of Semper Fly Helicopters—a female veteran–owned FAA Part 141 helicopter flight school—she is committed to advancing pilot development, safety, and training excellence in the rotorcraft industry. Rector plans to focus on education, workforce development, and veteran integration into the industry during her tenure on the VAI Board.

> **This is more than an election—it's a reflection of who we are becoming as an industry.**
> *– Mike Hertzendorf*

Director, Government Service Operator

Stephen Lee (National Aeronautics and Space Administration, Kennedy Space Center, Florida) has more than 20 years of experience in vertical aviation, serving concurrently as a pilot and maintainer. His roles have included pilot in command, air mission commander, supervisory maintenance test pilot, functional check pilot, aircraft flight instructor, and airframe and powerplant mechanic with inspection authorization. He currently serves as chief of aviation maintenance at the National Aeronautics and Space Administration's Kennedy Space Center.

"I will represent the government service position professionally and give back wherever I can. Having the unique perspective of both a mechanic and a pilot, I believe I can translate the importance of both roles to the future of vertical aviation," Lee says.

Mark Wegele (Salt River Project, Phoenix, Arizona) will be completing the remainder of Gottwig's term as a director representing the government service operator sector. Wegele, who will serve from July 2025 to June 2026, has led the Flight Department at Salt River Project (SRP) since 2019, overseeing and expanding aviation operations that support the utility's vital electric power and water services across Arizona. With over 20 years of diverse aviation experience, he has held key leadership roles at SRP and Erickson Incorporated and on US government contracts with the Departments of State and Defense. Throughout his career, Wegele has managed complex aviation operations, led global maintenance teams, and driven innovation in high-stakes, compliance-focused environments. As a board member of VAI, he will be dedicated to representing and actively advocating for the interests of vertical aviation.

Representing a Diverse Industry

The new board structure reflects VAI's vision to be the membership association leading the global evolution and expansion of vertical flight.

"This is more than an election—it's a reflection of who we are becoming as an industry," Hertzendorf says. "Our governance reforms empower a broader cross section of the industry to have a say in our future, ensuring we remain aligned with the needs of our members."

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VAI BRIEFS

VAI Southeast Asia Aviation Safety Conference Planned

VERTICAL AVIATION INTERNATIONAL (VAI) IS expanding its engagement with the global industry with a planned inaugural VAI Southeast Asia Aviation Safety Conference (SAASC). This landmark event, scheduled for May 27–29, 2026, in Bali, Indonesia, represents a proactive step in delivering critical safety support to regions historically lacking easy access to VAI-hosted or -supported events such as VERTICON, EUROPEAN ROTORS, and the Aerial Work Safety Conference.

Southeast Asia is home to one of the fastest-growing vertical aviation markets, yet it faces persistent safety challenges: limited access to training, inconsistent regulatory oversight, and a lack of structure for knowledge sharing. The SAASC directly addresses these gaps by offering a collaborative platform for operators, regulators, OEMs, insurers, and end users to come together and elevate the region's safety posture.

Modeled after the successful Air Tour Safety Conference held in Hawaii in 2024, VAI's Southeast Asia Aviation Safety Conference will serve as a hub for learning, sharing best practices, and showcasing innovations across all sectors of vertical aviation.

This new initiative reflects VAI's commitment to global advocacy and its mission to create safer skies through partnerships that transcend traditional borders. As François Lassale, VAI's special advisor for international programs, noted during VERTICON 2025, "We're not here to compete with local organizations—we're here to support them, bring structure, and create a trusted forum for industrywide collaboration."

The multiday event will feature keynote speakers, targeted training events, and an open forum for exchanging operational knowledge. Most important, it aims to build trust and legitimacy by connecting all stakeholders—large and small—with one purpose: advancing safety through shared understanding.

With Southeast Asia as the starting point, the SAASC serves as a model for future regional safety forums in underserved areas around the world. As the vertical aviation community grows globally, so must its commitment to safety—and this event marks a decisive step in that direction.

Stay tuned for more details as VAI prepares to roll out this transformative initiative. In the meantime, we welcome those who wish to be part of this journey and support the elevation of safety in the Southeast Asia vertical aviation community to reach out and connect with us.

For more information, contact Info@Verticalavi.org.

VAI to Host Annual Air Tour Safety Conference

FOLLOWING A SUCCESSFUL 2024 EVENT in Honolulu, Hawaii, the VAI Air Tour Safety Conference this year will be held in Las Vegas, Nevada, Oct. 21–22.

Designed specifically for air tour operators, the conference provides actionable safety strategies and practical tools to improve operational standards across the industry. Tour operators, pilots, and aviation mechanics/engineers, as well as regulators, safety experts, and technology providers, are again expected to attend this year, continuing the momentum built at the 2024 gathering.

This year's conference will spotlight high-priority topics such as advanced flight-data tools, weather integration, and FAA policy updates. With the FAA's safety management system (SMS) compliance deadline less than two years away, sessions focusing on SMS implementation will help operators get ahead of the curve.

In addition, the US National Transportation Safety Board has been invited to present the results of an accident investigation, providing attendees with in-depth analysis of the challenges to operational safety.

VAI's goal for the 2025 Air Tour Safety Conference is clear: elevate safety culture through real-world insights, expert panels, and industry collaboration.

Registration details and hotel accommodations will be available soon at verticalavi.org/atsc.

VAI EVENTS

AIR TOUR SAFETY CONFERENCE

2025 / 21–22 OCT / LAS VEGAS

WATCH
VAI's award-winning video

VAI BRIEFS

VAI Honored with TRENDY Award for Best Video

VAI RECEIVED A BRONZE TRENDY AWARD IN the "Best Video" category at the 45th Annual Salute to Association Excellence ceremony, hosted by Association Trends, Mar. 13 in Washington, D.C.

HAI: 75 Years of Service (youtu.be/koahG7kWN3A) chronicles the history of VAI, formerly known as Helicopter Association International (HAI), and its role as the leading voice for the vertical aviation industry.

The TRENDY Awards recognize the most creative and effective marketing and communications campaigns produced by professional and trade associations across the United States. This year's competition featured more than 200 entries submitted by over 80 associations, each competing for top honors across 25 categories.

VAI's winning entry was produced as part of the association's 75th anniversary celebration in 2023. The video premiered at the association's 2024 annual meeting and coincided with VAI's rebrand. According to the judges, the video stood out for its dynamic storytelling, crisp visuals, and clear articulation of VAI's commitment to safety, innovation, and advocacy.

VAI Wins Award for Outstanding Rebrand

VAI HAS BEEN NAMED THE WINNER OF the 2025 Gold Circle Award for Rebranding Campaign by the American Society of Association Executives (ASAE). The award was presented May 12 during ASAE's Marketing, Membership, Communications + Tech Conference in Washington, D.C.

The Gold Circle Awards honor associations that demonstrate exceptional creativity and impact in marketing, membership, and communications. VAI's winning entry was recognized for its bold transformation, strategic execution, and commitment to innovation and industry alignment.

VAI, formerly HAI, Helicopter Association International, introduced its new name and identity at HAI HELI-EXPO 2024 in Anaheim, California, to better reflect the full spectrum of vertical flight. The forward-looking rebrand connects the most widely used form of vertical aviation—helicopters—with the powered-lift aircraft, tiltrotors, and other aircraft in development. More than a visual overhaul, the rebrand redefined the association's mission to represent all forms of vertical aviation.

VAI's rebrand campaign included a new name and logo, an updated color palette, refreshed messaging, accessible digital platforms, print materials, and video storytelling—all strategically designed to broaden engagement and unify the vertical aviation community. Inclusive imagery, clear and accessible design standards, and member-driven messaging ensured all voices and aircraft types were represented.

Winning the Gold Circle Award affirms VAI's decision to adopt an identity that reflects the evolving aviation landscape. Most important, it highlights the rebrand's benefits to our members, as it enhances VAI's ability to deliver comprehensive advocacy, education, safety, and support programs across a broader industry base—connecting members through a shared purpose and a stronger collective voice.

"This honor is more than recognition—it's momentum," says Michael Hertzendorf, VAI's chief operating officer. "We're proud to receive the Gold Circle Award, and even prouder of what it represents: a united community of professionals who keep the world turning and flying."

Gina Kvitkovich (right), VAI senior director of communications, accepts the ASAE Gold Circle Award for the association's rebranding campaign. "It's an honor to accept this award on behalf of the many people who contributed to this effort, including the VAI Board of Directors, staff, and our branding agency," says Kvitkovich. *(ASAE Photo)*

More than a visual overhaul, the rebrand redefined the association's mission to represent all forms of vertical aviation.

VAI MEMBER BENEFIT OF THE MONTH

VAI Member Online Community

Web-based platform lets aviation pros network, collaborate.

ONE OF VAI'S NEWEST member benefits, the VAI Member Online Community offers members an exclusive way to connect with peers and vertical aviation experts to network and share knowledge. Participants can also join special interest groups to problem-solve and discuss industry challenges and hot topics, including:

- Aerial firefighting and natural resources
- Emerging professionals
- Safety
- Small-business operations
- Technical and maintenance issues
- Tour operations
- Unmanned aircraft systems
- Workforce development.

It's easy to log in to the VAI Member Online Community, which is free to VAI members. Just go to https://community.verticalavi.org.

Other benefits of the community include the chance to:

- **Grow professionally:** Stay informed about industry issues
- **Engage the community:** Start a conversation, ask and answer questions, debate issues, build consensus, and exchange ideas
- **Expand knowledge:** Share best practices with and learn from your peers
- **Advocate:** Raise the visibility of a topic that's important to you
- **Offer your skills:** Volunteer your time or resources to help a cause
- **Show support:** Send a shout-out to another community member
- **Stay up to date on VAI:** Learn about new initiatives and talk with VAI staff
- **Build your network:** Search the Community Member Directory to find specific participants.

Miss a discussion? No problem! The platform's Discussion Posts section lets you view past conversations and questions and start a new thread. Wondering where to find a particular part or vendor? Ask your fellow community members! There's also a daily digest email that summarizes all the activity from each day, so even if you don't get a chance to log in, you won't miss news that's important to you.

Questions? Contact Info@verticalavi.org.

VAI/Noah Falklind Photo

5 DOS AND DON'TS

How to Ace Your FAA Medical Exam

Preparation and transparency are key.

By Dan Monlux

YOUR FAA MEDICAL EXAM ISN'T JUST ANOTHER DOCTOR'S VISIT—it's your ticket to the cockpit. Although over 94% of pilot applicants obtain their certificates, small mistakes can create big delays in the process. Here are five dos and don'ts to help ensure your exam goes smoothly.

1 **DO prepare like it's a checkride.** Treat your aviation medical examiner (AME) appointment like you're adding a new rating with a designated pilot examiner. Show up organized, bring relevant documents (especially if you have a medical condition), and know what your AME expects. If you have *any* medical condition, make sure you understand how it will affect your medical certification *before* you schedule your AME exam. And if you're flying under a special issuance or CACI (conditions AMEs can issue), have every required piece of paperwork ready. A well-prepped pilot makes the AME's job easier—and improves your chances of medical certification.

2 **DON'T lie or omit information.** Lying or "forgetting" something on your application is a surefire way to land in trouble. Your AME may give you the benefit of the doubt once. After that, your credibility fades quickly. Always be honest—your flying future depends on it. Avoid careless errors, communicate with your examiner, and respect the process.

3 **DO prepare in advance if you have a known condition.** Many medical conditions, such as hypertension or asthma, fall under the CACI program, which allows AMEs to issue your certificate if you provide the right medical documentation. With the right preparation, even a heart attack or insulin-dependent diabetes doesn't have to ground you forever. Know what's required, and bring it all to your exam. With proper due diligence, you'll keep your certificate in hand or—at the very worst—minimize the time you spend grounded.

4 **DON'T show up sick, injured, or without your glasses.** It sounds obvious, but pilots still forget. Your AME evaluates you as you are on exam day. Show up with a fever, limping, or without reading glasses? You're not getting certified. Reschedule if needed—days lost are better than months lost.

5 **DO take your doctor's advice seriously.** If you're managing a condition, ignoring your doctor's recommendations can raise red flags. The FAA cares less about the condition and more about how you manage it. Well-documented, stable treatment makes for a smoother path to certification.

Dan Monlux, MD, *is an FAA senior HIMS (human intervention motivation study) AME. As the medical director at Wingman Med, he specializes in helping pilots navigate the FAA medical certification process. A US Navy veteran, he holds an ATP certificate and is a CFI for single-engine, multi-engine, and instrument flight.*

IN THE SPOTLIGHT

Melissa McCaffrey, Head of Government Affairs, Archer

AAM company's lead lobbyist discusses what's next.

By Mark Huber

ARCHER AVIATION IS ONE OF THE LEADING companies in the electric vertical takeoff and landing (eVTOL) industry. With a market capitalization estimated at $3.98 billion in late April, Archer has made significant progress in recent years:

- Obtained commitments from United Airlines and Japan Airlines for up to $2 billion in aircraft sales
- Allied with global automaker Stellantis for serial production and construction of a large final assembly plant in the US state of Georgia
- Obtained various FAA certificates, including Part 135 air carrier, Part 145 repair station, and Part 141 flight school
- Formed a defense division and delivered aircraft to the US Air Force
- Announced air taxi networks in India, the United Arab Emirates (UAE), and the US cities of Los Angeles, New York, and San Francisco
- Successfully completed hundreds of hours of test flights of its Midnight aircraft.

Melissa McCaffrey joined Archer last year as head of government affairs. McCaffrey previously led Overair's government affairs division and prior to that, she spent a decade at the Aircraft Owners and Pilots Association. She holds a bachelor's degree in air traffic management from Embry-Riddle Aeronautical University and has been a licensed pilot for over 20 years. POWER UP recently discussed the road ahead for Archer and the advanced air mobility (AAM) sector.

This interview has been lightly edited.

POWER UP: ***How do you leverage your supplier and customer coalition to navigate the regulatory and legislative environment?***

McCaffrey: We've been very intentional about building a global partner network. It gives us the flexibility to adapt to different regulatory landscapes.

Our goal is to launch service in the UAE later this year, and we'll bring that experience to our work with the FAA and other regulators to move toward commercial service in the United States.

So that data will expedite the spread of AAM service?

It's going to be really valuable data. Our service in the UAE will be a game changer, and I think it's going to be an accelerator for US operations.

You formed Archer Defense last year. Is sustained government financial support necessary for AAM to achieve its full potential?

Yes. There's a very long history of defense shaping civil aviation. Just think of GPS. That was originally developed for the

Major airlines have committed to ordering more than $2 billion worth of Archer's Midnight eVTOLs. *(Archer Aviation Photo)*

military, and now we use it for precision navigation and instrument approaches.

We're able to move away from ground-based navigation systems like VOR and NDB, which have clear limitations on accuracy and coverage areas. Learning from the defense world and applying it to commercial operations will be a key to AAM success.

What's Archer's strategy for building state and local support for AAM, especially in markets such as New York and Los Angeles, where there is perennial political hostility in some quarters toward vertical aviation?

You have to be good neighbors and community partners. Trust isn't earned overnight, which is why we've been working closely with city leaders, local communities, and elected officials to show them how different our aircraft is and the positive impacts it will have.

We're quieter than a helicopter, which is a major unlock, as we're looking to serve communities. Some of these areas may not have been able to access aviation because of noise, safety, or environmental concerns. When we come into the mix, we're creating local jobs, expanding workforce opportunity, and supporting new infrastructure—all lasting benefits.

Each new Congress and administration brings different policy nuances. What signals have you received from Capitol Hill and the White House regarding continued support for AAM?

There's strong bipartisan, bicameral support for AAM, and that enables us to hit major regulatory milestones with fewer issues, whether it be FAA reauthorization, the SFAR [Special Federal Aviation Regulations] that created the new powered-lift category of aircraft and the framework for pilot training certification and operations, or the development of vertiport guidance.

Lawmakers on both sides of the aisle recognize the potential for leadership in this space and its potential to create jobs. This support is critical as we enter into the next year. The groundwork that was laid is really going to come to fruition and move this industry forward.

Archer has already received several FAA certification approvals. How do you maintain a smooth relationship with the agency?

We've taken a collaborative approach, and we have a very good team that's respected within Washington. We had a lot of early engagement, and we've built trust. It's positioned us as a leader in the space and as an AAM resource, so it's been great. But it's taken a lot of work to get to this point.

AAM could require substantial infrastructure investment. How is this concern being addressed?

The FAA reauthorization act has some very critical pieces for infrastructure. We want to ensure they're funded and that people follow through—that those items become reality. There's also a lot of underused aviation infrastructure across the United States. We're focused on educating and helping local governments plan to make the most of this infrastructure.

Along this line, we've been very thoughtful with planning and execution. Our electric charging system is an example. We use the CCS charging standard, which is the universal charging standard. This will allow us to integrate into existing systems without any major changes. We also work with existing airport master plans and talk to airport authorities all the time. We have close, thoughtful discussions with them.

The states don't want to fall behind. They want to be part of this industry. Multiple jurisdictions are making statewide plans, figuring out the next step, bringing the right people to the table, and having the hard conversations about what they need. It's a multilayer effort when it comes to government, and everybody is trying to make sure it aligns, that there isn't a patchwork of regulation or different ideas.

It's an exciting moment in aviation. We're not just building aircraft—we're shaping a new mode of transportation.

Mark Huber *is an aviation journalist with more than two decades of experience in the vertical flight industry.*

Upcoming Events

Jul. 14–18
APSCON Conference/APSCON Unmanned 2025
Airborne Public Safety Association
Phoenix, Arizona, USA
Learn more at publicsafetyaviation.org/apscon
Visit VAI at Booth #1006

Jul. 19–20
19th Annual Electric Aircraft Symposium
Vertical Flight Society
Oshkosh, Wisconsin, USA
Learn more at vtol.org/eas

Jul. 21–27
EAA AirVenture 2025
Experimental Aircraft Association
Oshkosh, Wisconsin, USA
Learn more at eaa.org/airventure
Visit VAI at Booth #363

Sep. 9–11
2025 Global Aerospace Summit
US Chamber of Commerce
Washington, DC, USA
Learn more at uschamber.com/events/global-aerospace-summit

Sep. 20
11th Annual Girls in Aviation Day
Women in Aviation International
Worldwide event
Learn more at wai.org/giad

Oct. 7–9
Vertical MRO Conference
MHM Publishing
Kelowna, British Columbia, Canada
Learn more at verticalmro.com

Oct. 14–16
NBAA Business Aviation Convention & Exhibition (NBAA-BACE)
National Business Aviation Association
Las Vegas, Nevada, USA
Learn more at nbaa.org/events
Visit VAI at Booth #1926

Oct. 20–23
17th International Wildland Fire Safety Summit
International Association of Wildland Fire
Calgary, Alberta, Canada
Learn more at wildfiresummit.org

Oct. 21–22
VAI Air Tour Safety Conference
Vertical Aviation International
Las Vegas, Nevada, USA
Learn more at verticalavi.org/atsc

Oct. 27–29
2025 Air Medical Transport Conference
Association of Air Medical Services
Omaha, Nebraska, USA
Learn more at aams.org/page/events

Nov. 4–6
HAC 30th Annual Conference & Trade Show
Helicopter Association of Canada
Abbotsford, British Columbia, Canada
Learn more at h-a-c.ca/conference.html

Nov. 10–12
Vertical MRO Conference
MHM Publishing
Irving, Texas, USA
Learn more at verticalmro.com

Nov. 17–19
Ag Aviation Expo
National Agricultural Aviation Association
Reno, Nevada, USA
Learn more at agaviation.org/ag-aviation-expo

Nov. 17–20
EUROPEAN ROTORS 2025
European Helicopter Association and European Union Aviation Safety Agency
Cologne, North Rhine-Westphalia, Germany
Learn more at europeanrotors.eu
Visit VAI at Stand #219-B

Dec. 7–9
VAI Aerial Work Safety Conference
Vertical Aviation International
Boise, Idaho, USA
Learn more at verticalavi.org/awsc

Highway 121, McKinney, Texas, USA | Mar. 17, 2025

TruFlight Academy | Guimbal Cabri G2
Pilot: Todd Guison

Photo by Mark Bennett


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RICK KENIN

TAKING VAI TO NEW HEIGHTS

New VAI chairman brings strategic view to industry challenges.

By Christine Knauer

All photos Katie Reilly

RICK KENIN'S CAREER COULD FUEL several fast-paced TV shows. It has all the right elements—lifesaving rescues, tense drug interdictions, and a touch of international diplomacy. The 30-year veteran of the US Coast Guard (USCG) even has an ironic vulnerability: seasickness.

During those 30 years, the new chairman of the VAI Board of Directors traveled the globe, from the Bering Sea to the Caribbean islands and South America, with assignments as diverse as shipboard patrols and the US Senate, and duties ranging from flying USCG jets and rotorcraft to understanding the fine points of Haitian politics.

Today, he serves as COO of transport for Boston MedFlight, a nonprofit, Bedford, Massachusetts–based air ambulance organization. Beginning on Jul. 1, 2025, Rick will bring the strategic perspective gained during this action-packed career to his new, yearlong leadership role at VAI.

Thrilling Adventures

Rick wanted to attend the US Coast Guard Academy from a very young age. While earning an engineering degree there, he eyed a career flying rotorcraft.

"A couple of months into naval flight training, the Coast Guard said, 'We don't need you in helicopters. We need you in jets.' I was crushed. Turns out, it's probably the best thing that ever happened to me, because being a jet pilot in the Coast Guard was rewarding, very fast paced, and honed my airmanship skills. Later in my career, I had the opportunity to transition to helicopters, so it all worked out in the end," says Rick.

He holds an airline transport pilot license for fixed-wing aircraft with multi-engine and jet type ratings, a commercial rotorcraft license with instrument rating, and a single-engine land certificate. He's also an avid general aviation pilot with a total of 6,000 personal and professional flight hours.

For the first 10 years of his career, Rick flew the HU-25

Rick proudly leads aviation and ground operations for Boston MedFlight, a rare nonprofit Part 135 air ambulance program.

Guardian, a modified Dassault Falcon 20 jet. "In the late 1980s and through the 1990s, the Coast Guard started aerial interdiction, a new mission type where we used our jet aircraft to intercept drug smugglers in small aircraft. It's very challenging for a fast swept-wing jet to get behind a Cessna and trail them," says Rick. "I got very good at formation and intercept flying. It was all very exciting."

Flying into the Storm

Those early days also included key lessons for Rick, starting with a mentor at the USCG Aviation Training Center in Mobile, Alabama.

"In the late 1980s, early 1990s, the Coast Guard didn't have a good safety record. It crashed at least one or two helicopters a year and was pretty cavalier about safety. I was fortunate that I had a commanding officer with a background in safety who took me under his wing. He said that after you investigate your first fatal crash and you have to talk to the families, it hits you that there's a better way of doing things," Rick recalls, referring to Vice Admiral Richard Herr, who at one time held the distinguished Ancient Albatross title as senior USCG pilot on active duty.

"You don't think about risk a lot when you're 22 years old. But he really instilled in me the importance of flying safely, and I'm glad he did. Over my 30 years in the Coast Guard, I saw a dramatic change for the positive in how it looked at not just aviation but safety across the board."

During an interservice assignment with the US Navy, Rick flew the carrier-based Grumman E-2C Hawkeye surveillance aircraft for a year before returning to USCG flight duties. He also served as a Coast Guard fellow in the US Senate for two years, working on the staff of Sen. John McCain (R-Ariz.)—an assignment Rick affectionately refers to as a cultural exchange tour.

Proving that rotorcraft aviation is a small community, when Rick learned to fly helicopters at an isolated USCG air station in Oregon, his instructor turned out to be Chris Martino, who now serves as VAI's senior director of operations and international affairs.

"Chris taught me to fly in the wicked northwest Pacific weather, a crucible for any helicopter pilot. Twenty years later, I work with him on a routine basis," says Rick, who spent three tours flying helicopters for the USCG and later held commands in Texas and Florida.

"My second command was Coast Guard Air Station Miami, which has the reputation for being the busiest search-and-rescue unit in the world. It's a very fast-paced operation in South Florida. It was a really exciting time. I loved flying out there.

"My final tour was as chief of staff for Coast Guard District 7, which covers all of the Caribbean and South America," Rick says. "As chief of staff, I interacted with foreign ambassadors and senior government officials,

Rick takes in the moment as he departs the aircraft after his last flight as commander of Coast Guard Air Station Miami (Florida), where he flew the MH-65C Dolphin (AS365). "It was a really exciting time. I loved flying out there," he recalls.

learned about Cuban and Haitian political issues, and oversaw drug interdiction and a lot of search and rescue."

Honing the Air Ambulance Model

In 2014, after Rick retired from the Coast Guard, he landed at Boston MedFlight. Like most air ambulance providers, it operated under a vendor model. For three decades, aviation organizations such as Keystone Aviation, Sikorsky-Ranger Aviation, and ERA Helicopters provided the aircraft, pilots, mechanics, and operating certificate while Boston MedFlight provided the nurses and paramedics.

"Boston MedFlight was ready to become their own air carrier, so they hired me to manage that process. While the company was doing exceptionally well, they wanted more control over everything," Rick says.

Over the next three years, Rick helped Boston MedFlight navigate the rigorous process necessary to earn its Part 135 air carrier certificate for rotorcraft, and then again several years later for fixed-wing aircraft.

"Now the organization, from end to end, is under the Boston MedFlight flag—everyone from the mechanics, pilots, nurses, and paramedics to the communications specialists, administrators, and billing personnel. It's pretty unique in our industry," says Rick, who oversees both ground and air transportation.

"By having our own air carrier certificate, we've been able to develop the culture we want. It's not just about how we fly or train, or how we maintain the aircraft, it's also about how we care for patients," says Rick.

"One of the achievements I'm most proud of is that we didn't just become an air carrier, we also developed a safety culture with very active hazard reporting."

Charlie Blathras, then a paramedic and now part of the leadership team at Boston MedFlight, introduced Rick to the air ambulance world and taught him the value of that holistic approach to safety.

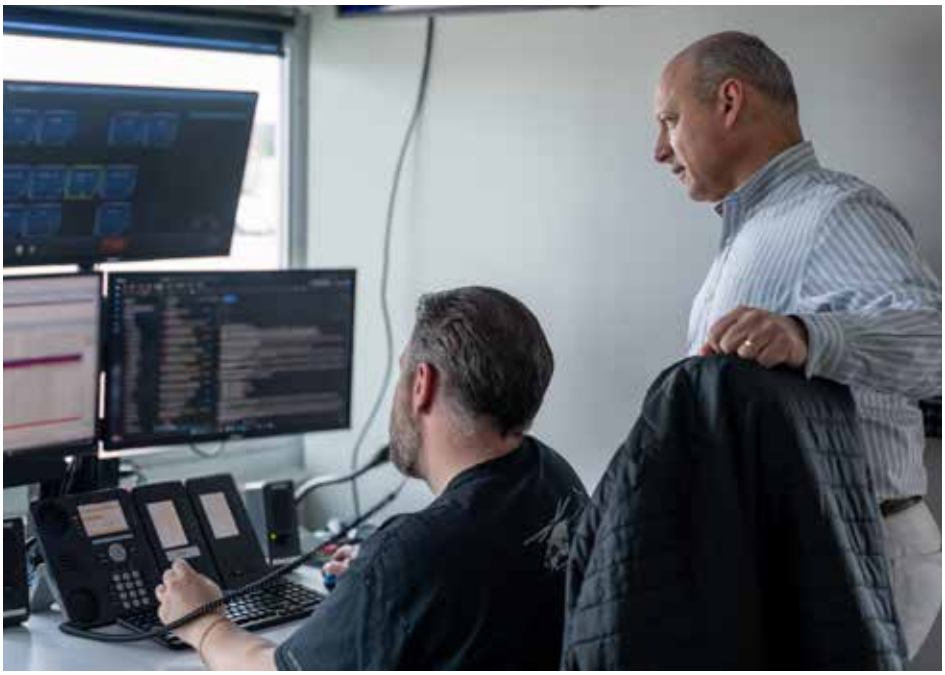
"As a friend and mentor, Charlie helped me transition from the military to commercial aviation and, specifically, the air ambulance world," says Rick. "He explained that the best thing we can do for the patient is get them where they need to go safely and deliver them to the hospital in better condition than when we picked them up."

Fine-Tuning Best Practices

With a firmly rooted safety culture and a skilled management team handling day-to-day tasks at Boston MedFlight, Rick is free to shape the organization's future, from evaluating new projects and programs and ensuring funding is in place, to engaging with regulators, transportation departments, hospitals, and others. He is also active in the air ambulance community, serving on the Air Medical Operators Association's Safety Committee and the Commission on Accreditation of Medical Transport Systems' Standards Committee.

Boston MedFlight also belongs to the North East Air Alliance, a partnership of seven air ambulance programs with 14 air ambulance bases that serve the Northeastern United States. Each member coordinates landing and flight following in their area and provides assistance to the others when transportation capacity is stretched thin.

Rick sees strong partnerships like these as fundamental to operating safely and successfully. "We work together, sharing communication centers and best practices. There's plenty of business in the Northeast for all of us, so we're able to use that to



Managing air ambulance services in New England is a complex task. Rick oversees a team of skilled communications specialists, including Jack Treddin (seated), who ensure that patients get to where they need to go safely and efficiently.

A true Coast Guard family, the Kenins served at 12 duty stations until Rick retired and the family settled in the Boston, Massachusetts, area.

our advantage, working cooperatively instead of competing," he says.

During Rick's tenure, Boston MedFlight has more than doubled in size, increasing from 80 employees and three bases in 2014 to 205 staff members and five bases today. The organization operates seven Airbus H145 helicopters, a Citation CJ4 jet, and a fleet of ground ambulances. While it once served just Massachusetts and then the New England region, Boston MedFlight now flies across the United States, Canada, and to Bermuda, airlifting patients to medical care. Celebrating its 40th anniversary this year, the organization transports some 6,000 patients annually by ground and air.

"When I started in 2014, we had three different types of helicopters and a spare helicopter of a fourth type. It's very difficult to maintain that many types of aircraft, but it's also difficult for the pilots to maintain proficiency in multiple aircraft. When bad things happen, they have to think, 'What aircraft am I in and what emergency procedures do I use?' It's just not a good way to operate. Now, all of our pilots receive the same training, and all of our mechanics go to the Airbus H145 factory school. We know that airframe really well," Rick says.

"To further enhance our proficiency, we're purchasing our own virtual reality simulator for pilot training. We'll be the first operator of an H145 VR simulator in the United States," he says. "It's another example of how we're investing in safety."

An Evolving VAI

In 2015, Rick attended his first HAI HELI-EXPO®, the annual conference and trade show now known as VERTICON. "I was like a kid in a candy store at my first show," says Rick.

That experience kicked off a decade of his growing involvement with the association, including serving as chair of VAI's Safety Committee, now known as the Safety Industry Advisory Council, and since 2020 on the VAI Board of Directors.

"In those early years, I was really focused on the classes. As I moved up in the company and in the association, it became much more of a business-to-business event," says Rick. "When we started buying new helicopters and equipment, it was an opportunity to meet with vendors and talk about the latest technology. I still love going to VERTICON now because I get to see friends

Rick plans to focus the VAI Board's strategic intent on member benefits and advocating for the entire vertical aviation industry.

and, of course, it's a one-stop shop for everything vertical aviation. For the past few years, I've mentored others through the Mil2Civ program, giving back to the military and sharing my experience with veterans starting their second careers."

Rick credits VAI with significantly enhancing its member benefits over the past two years, including providing a variety of low-cost safety management systems. In April, Boston MedFlight began pursuing Bronze accreditation through VAI's industry-leading Operational Risk and Resilience Accreditation (ORRA) program.

"Today, VAI is more than a fantastic trade show. It offers tremendous member benefits with a focus on advocacy and safety, both domestically and internationally. It has really expanded and evolved," says Rick.

Tackling the Challenges

Of the many issues facing the industry, Rick considers expanding into new opportunities, maintaining access, and integrating new technology as critical. He views restrictions on how and where operators fly as affecting the overall safety of the industry.

"One of the biggest issues is the integration of new vertical aviation technologies for advanced air mobility and unmanned aerial systems. We need to figure out how to operate safely in the airspace together," Rick says.

"We have to be willing to invest in the technology for sense and avoid. I have no doubt that there will always be a need for manned helicopters. The things you can do with a helicopter are just so unique, but there is also a future need for unmanned aerial systems and electric vertical takeoff and landing aircraft. Being able to integrate all those together is key."

Managing these issues will be challenging, Rick concedes. With air ambulance, aerial firefighting, and other operators facing tight funding and economic headwinds, the downstream effect may take a toll on investments in safety technology.

He's confident VAI can lead the way.

"The VAI Board is very different from HAI's board. Today, we're much more focused on the strategic future of the association and the industry.

"The VAI staff is spectacular—it's not the job of the board to get involved in their day-to-day operations," Rick continues.

As chair of the Governance Committee, Rick helped review the association's bylaws, recasting the board as a strategic body and integrating new technologies under the vertical aviation umbrella. The revised bylaws, which took effect in 2024, opened the door to new types of member operators, manufacturers, and suppliers.

"VAI is the voice of the vertical aviation industry. Being on the board has opened my eyes to the entire breadth of vertical aviation and its some 44 mission areas," says Rick. He encourages VAI members with strategic planning experience to consider serving on the board.

Rick says he plans to continue the work of his predecessors to enhance VAI's member benefits and grow its membership. "I joined Boston MedFlight with the opportunity to take it to new heights, to be our own Part 135 operator. Similarly, VAI is doing exceptionally well. Our finances are in great shape. Our products, initiatives, and strategic intent are first-rate. As the chairman of the board, I'll continue our work of taking the association to new heights."

Christine Knauer *has written for major aircraft OEMs, MROs, and avionics manufacturers for more than 25 years. She holds a master's degree in aviation safety.*

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VERTICON

Premier global vertical aviation event sees successful debut.

By Jen Boyer

THE FIRST EDITION OF VERTICON CONCLUDED in Dallas, Texas, in March with a record number of exhibitors and cutting-edge innovations. The world's largest vertical aviation trade show and conference featured 686 exhibitors and 14,414 attendees representing 88 countries.

Throughout the event, held at the Kay Bailey Hutchison Convention Center Dallas, there was no shortage of business deals playing out. Both Robinson Helicopter Co. and Airbus Helicopters unveiled new aircraft models, while other OEMs announced aircraft sales daily during the four-day show, which ran Mar. 10–13. Those increased sales, in turn, boosted business for the many vendors supporting the vertical aviation industry's OEMs and operators.

Above: The vertical flight industry converged in Dallas this past March, building momentum with cautious optimism. Inset: A Kern County (California) Fire Department Bell 412EPX arrives at VERTICON 2025. *(All photos VAI/f-stop Photography)*

A Giant Leap for Robinson

One of the many Robinson banners at VERTICON foreshadowed the manufacturer's big model news, proclaiming, "It's Not a Launch. It's a Leap."

Robinson became the talk of the show two days

TAKES OFF

before exhibits opened Mar. 11 when the maker unveiled its newest aircraft type—the two-pilot, eight-passenger, multimission R88, powered by Safran's Arriel 2W engine.

Unlike previous models from Robinson, which were built off the slim R22 design, the R88 resembles a more traditional single-turbine multimission helicopter.

Longtime Robinson VP of Engineering Pete Riedl, who died in January, led the new model's design, building it around Robinson's proven two-bladed teetering rotor system, tall mast, and founder Frank Robinson's high-performance tail rotor. But that's where the obvious similarities end: gone is the T-bar cyclic, replaced by standard, removable floor-mounted cyclics that allow the helicopter to be piloted from either front seat in the roomy, wide cabin. The R88 also features a full glass cockpit with Garmin G500H TXi displays and a four-axis Garmin autopilot standard.

"As we look to the future, we see a clear and compelling need for more," Robinson CEO David Smith said of the R88's development during the unveiling event on Mar. 9. "More capability, more capacity, and more range."

Smith emphasized that the company saw an opportunity with the R88 to fill a void in the industry with "an accessible, highly capable aircraft that positively addresses those demands for pilots and maintainers all over the world in a robust and supportable package."

Robinson was uniquely positioned to meet this need, he said, due to the company's long history of providing helicopters known for their affordability, ease of maintenance, and safety.

Listed for $3.3 million, the versatile R88 is designed to support firefighting, air ambulance, air tour, VIP transport, and utility operations. The model offers features not

HEAR more about the H140

available in the light single-engine helicopter market, Smith emphasized, with a highly reconfigurable flat cabin, high skids, a truck tailgate–like back door for ease of loading, a data recording system, an onboard health and usage monitoring system, dual hydraulics, and certification for optional single-pilot IFR operations. Other standard features include air-conditioning, an inlet barrier filter, impact-resistant windshields, and adjustable seats.

The first R88 could fly as soon as the end of 2025. Smith anticipates type certification between two and a half and four years from that first flight.

Robinson wouldn't specify how many orders it received for the R88 at VERTICON, but the OEM did gain 120 firm orders for aircraft, with the vast majority being for the R88, it noted.

Airbus Expands Light Twin Product Line

Airbus Helicopters launched its light twin-engine H140 at VERTICON during the first day of exhibits. Built off the H135 with key elements of the popular H145, the new aircraft was designed to meet customer demands for improved performance, a larger cabin, and increased comfort, Airbus announced at the unveiling.

The H140 features the H145's bearingless, five-blade main-rotor system, situated 4 inches higher than the H135's for increased clearance, making room for the 10-inch–larger clamshell doors compared with the H135, a common request from the air ambulance sector for patient loading. The cabin is 37 cu. ft. larger than the H135's, allowing for a more comfortable six-passenger configuration, and features larger windows for increased visibility.

The H140 also sports a refined Fenestron tail for improved performance, with a T-tail horizontal stabilizer at the top. The design change, according to Airbus, is intended to move the stabilizer away from the main-rotor downwash for better hover performance.

The onboard FADEC-equipped Safran Arrius 2E engines allow the H140 to produce the increased hot and high performance demanded for European air ambulance operations, in addition to sizable power reserves in situations where one engine is inoperative, compared with the abilities of the Arrius 2B2Plus engines in the H135.

Flight testing for the H140 began in June 2023, and Airbus hopes to achieve European Union Aviation Safety Agency certification in 2028, with FAA validation taking place the following year.

The H140 brings Airbus Helicopters' light twin product line to three aircraft. The company is adamant that increased

sales and demand for light twins have created room for the H140 and that the H135 and H145 will continue to be produced when the H140 is certificated. Commitments for 74 H140s were received during VERTICON, with the majority slated for air ambulance operations.

The Year of New Trim

VERTICON saw several announcements of new trim options for 2025. Enstrom Helicopter Corp. debuted two trim levels for its 480B turbine helicopter. The Elite trim package includes a sleek new paint scheme, interior trims to complement the exterior paint, an all-glass instrument panel, three-axis autopilot, and air-conditioning. The base Signature package offers similar paint and interior trim and comparable avionics; air-conditioning and autopilot are optional.

Robinson unveiled the R66 NxG with three trim levels featuring a refreshed paint scheme, Garmin glass avionics, autopilot, an impact-resistant windshield, and interior trims. The Southwood trim is the entry-level NxG option, with the Palo Verde offering a higher-end interior and avionics. The premium Riviera, a limited edition, increases the autopilot to three-axis and includes higher-end interior materials, light wood flooring, and its own unique paint scheme.

Bell unveiled the Designer Series luxury interiors for its 407GXi that include new color schemes, custom-stitched seats, and leather-wrapped armrests and headliner inserts.

Increased Demand for Aircraft

Despite global economic and political uncertainty, OEMs reported increased demand so far in 2025 for the same period in 2024. The majority of the growth shared at the show revolved around the offshore oil-and-gas, helicopter air ambulance, search-and-rescue, and defense sectors.

"We're seeing more life in the oil-and-gas sector, with increased production and renewed exploration, and also search and rescue," says Roberto Garavaglia, senior VP of strategy and innovation at Leonardo. "At the same time, we're seeing a revamp of the offshore oil-and-gas market where there's a swap of interest from the large helicopters to the super mediums, like the [AW]189. We've [also] been very active in the military market, especially with military variants of commercial airframes."

Bell experienced a similar trend, with the highest commitments in the helicopter air ambulance sector, driven by Air Methods' purchasing agreement for 27 Bell 407GXis. Bell also reported a record-breaking year for the Bell 429 in Latin America, in addition to the OEM's growth in the energy market with Entergy's order for two of the aircraft for power-line patrol.

Previous spread: Robinson attracts a crowd for the unveiling of its new premium R66 trims.

Bell is still awaiting final type certification for its highly anticipated Bell 525, positioned to serve the offshore market. The OEM announced a partnership with Omni Helicopters Guyana to perform an operational evaluation of the aircraft in the field.

Sikorsky highlighted its new S-92 Phase IV main gearbox and redundant lubrication system as part of its S-92A+ variant. In ground tests, the gearbox has exceeded 7.5 hours of operation with a simulated oil-lubrication failure, far longer than the aircraft's previous recorded endurance. Sikorsky anticipates certification for the variant later this year, says Leon Silva, the company's VP of global commercial and military systems.

Airbus Helicopters saw its North American market share continue to grow in 2024, particularly in the helicopter air ambulance space, driven by a 28-helicopter order from Global Medical Response in November 2024. "We saw an increase in North American market share from 2023 to 2024 of about 30%, quite a significant spike," shares Bart Reijnen, president at Airbus Helicopters and head of the company's North America region. "This was our best year in terms of bookings in a decade."

Since Ryan Weeks was promoted last June to president of MD Helicopters from his position as VP of aftermarket service and support, he's refocused the company's energy on aftermarket support. Under Weeks, who in January also assumed the CEO position at MD, the company is seeing many of its long-lead parts come in, which is allowing the manufacturer to make good on its promise of maintaining inventory for all high-demand parts and assemblies.

Weeks says work toward the Super D and MD 530N upgrade supplemental type certificates (STCs) is progressing, and kit deliveries are expected to begin in the third quarter.

"Four of the STCs are expected this year: the 530N with a C30 engine upgrade, the Super D20R, the Super D20B, and the Super D30," Weeks says. "Operators are also asking for a kit that allows them to install the C30 engine in a 500D and 500E ..., which will provide better performance in hot and high conditions, so we plan to release those upgrades after the Super Ds and

Lisa Atherton, Bell president and CEO, shares with VERTICON attendees the next step in the Bell 525's certification.

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the 530N upgrades."

Robinson had a banner sales year in 2024, especially for the R66, CEO Smith says, but key supply-chain issues hindered deliveries. For instance, he says the company could have delivered twice as many R66s in 2024 if not for the shortage of engines, which resulted from difficulty Rolls-Royce experienced with its supply chain. "It's all connected, so we continue to work closely with our vendors," Smith says.

On the engine side, Safran was the winner, with its engines selected for the new Robinson R88 and Airbus H140. Both engine variants are undergoing development and certification in conjunction with their new airframes.

Pratt & Whitney Canada, Rolls-Royce, and Safran reported higher demand due to increased aircraft sales. All three engine suppliers are boosting investment to meet the increased demand while continuing to battle supply-chain issues.

Supply-Chain Woes

Despite devoting considerable resources to the problem, the vertical aviation industry continues to experience supply-chain issues. The silver lining, however, is that OEMs and vendors are chipping away at these barriers, and the situation continues to improve. Key to the recovery has been manufacturers' constant communication with suppliers about their future needs.

Sikorsky's Silva summarizes what most OEMs are experiencing. "Demand is up, which means the consumption of parts, including those affected by supply-chain shortages, is also up," he explains. "So while we're recovering from supply-chain shortages, the demand is increasing faster. It's a perfect storm."

Exacerbating the issue are the ongoing war in Ukraine and sanctions on Russia that are limiting access to key minerals such as titanium and magnesium, forcing everyone needing those minerals to flock to remaining sources. Where a particular OEM gets its supply directly reflects the shortages it's experiencing.

For instance, Nicolas Chabee, Pratt & Whitney Canada VP of marketing and sales for helicopter engines, says his company is facing headwinds with forgings and castings. Safran Helicopter Engines CEO Cédric Goubet notes that while raw materials are no longer an issue, the company

Safran engines will power both aircraft announced at VERTICON 2025, the Airbus H140 and the Robinson R88.

Rotor Technologies VP of Partnerships Nik Coates (right) talks with an attendee about the company's unmanned R44 platform.

continues to encounter challenges with machining vendors. Rolls-Royce, meanwhile, contends with operational impacts due to financial hardship and staffing resources throughout the supply chain. Nonetheless, Rolls-Royce Helicopter Program Senior VP Scott Cunningham expects to increase deliveries by 50% in 2025.

At Bell, Chief Commercial Officer Danny Maldonado echoes that increased sales are driving up pressure on supply chains. Raw materials and castings are Bell's biggest challenges in this area.

"You can go to multiple vendors for a part, but if they're all going to the same places for raw material, that complicates things," he notes.

Another issue complicating the supply-chain recovery at press time in early June was the Trump administration's tariff policies, which have roiled the global economy. Whether or not the US government achieves its trade goals, the general consensus is that decades of globalization have come to a halt and it will take some time for the global economy to find a new equilibrium.

While OEMs are watching the situation closely, there continues to be uncertainty. It takes months to pivot with each new tariff change, and tariff changes have been coming as frequently as just weeks apart.

Future of Vertical Flight

At HAI HELI-EXPO 2024, VAI announced its name change from Helicopter Association International (HAI) and rebranded its annual trade show to VERTICON. The move was intended to address the increasingly diversified vertical aviation fleet, including helicopters, unmanned aerial vehicles (UAVs), and advanced air mobility (AAM) aircraft, such as electric vertical takeoff and landing (eVTOL) vehicles. VERTICON 2025 attendees could find each category represented at this year's show.

California-based AAM company Joby Aviation made its VERTICON debut with a mock-up of its six–electric motor aircraft, which the company says is entering the final stages of FAA certification. Joby recently received an additional $500 million investment from backer Toyota Motor Corp. and continues to build service partnerships, including a recent agreement to launch air taxi services in the United Arab Emirates by early 2026.

On the heels of permission to operate its Sprayhawk UAV commercially in Brazil, Rotor Technologies displayed its remotely operated R44-based aircraft, promoting both the Sprayhawk—aimed at the agricultural industry—and its Airtruck heavy-lift UAV platform.

Displaying in parent company Robinson Helicopter Co.'s booth, Ascent AeroSystems unveiled its Helius micro-UAV, a coaxial aircraft aimed at the public safety industry. Small enough to fit in a cargo-pants or tactical-vest pocket, the hand-launchable aircraft includes a 4K camera with low-light capability, cellular connectivity, obstacle avoidance technology, and a rechargeable, field-swappable battery.

Autonomous–air taxi manufacturer Wisk displayed a small model of its Generation 6 eVTOL in parent company Boeing's booth. Wisk reported its plans to launch the vehicle in Texas within the next decade.

Onward and Upward

VERTICON 2025 marked the final VAI event for James Viola, the association's president and CEO. After five years of service, Viola stepped down in mid-March to take the helm of the General Aviation Manufacturers Association. VERTICON 2025 was the ideal send-off.

"The changes we've made in the last five years have set VAI on an upward vector, and I see the whole industry ready to continue to do good things within vertical aviation," Viola says. "Helicopter operators are talking beyond helicopters now. They're incorporating future vehicles into their missions, and that was my intent five years ago. It will be exciting to see where it goes in the future."

VAI is already deep into planning for VERTICON 2026 and hopes to see continued growth in participation from all sectors of the vertical flight industry. The 2026 show will take place in Atlanta, Georgia, Mar. 9–12 (exhibits open Mar. 10–12).

Jen Boyer *is a journalist and marketing communicator specializing in aviation. She holds commercial, instrument, flight instructor, and instrument instructor ratings in helicopters and a private rating in airplanes.*

Joby Aviation made its VERTICON debut this year with a mock-up of its six-rotor aircraft. The aircraft is expected to enter service in the United Arab Emirates in 2026.

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THE REST OF THE STORY

Above left: VERTICON kicks off with a Welcome Reception the evening before the show floor opens. The crowd at this year's event, held Mar. 10, enjoys perfect weather, Western-themed games and gear, and the chance to connect with old friends, such as former Red Bull stunt pilot Chuck Aaron (inset photo, center).

Above right: Air tour operator and VAI Board Chair Mark Schlaefli addresses the Mar. 10 meeting of the VAI Tour Operators Industry Advisory Council (IAC). The IACs provide a forum for industry sectors to communicate and collaborate with VAI staff and leadership.

Left: Famed stunt pilot Fred North takes attendees behind the scenes of Hollywood blockbusters in a Main Stage presentation on Mar. 12. In addition to his work on more than 200 films, including the *Mission Impossible* and *Fast & Furious* franchises, North holds the world record for piloting a helicopter at altitude, climbing to 42,500 ft.

POWER UP CAN'T CAPTURE EVERYTHING that makes VERTICON the most exciting place to be for the vertical aviation community. If you were there, you understand. But if you couldn't make it to Dallas, here's a taste of what you missed.

Top: Members of the VAI Board of Directors flank VAI President and CEO James Viola as he accepts their farewell gift of an R66 tail rotor signed by board and staff members. Six days after the Mar. 10 presentation, Viola became president and CEO of the General Aviation Manufacturers Association. Pictured are, from left, David McColl, Sarah Arnold, Sarah Mooney, Mike Romanowski, Mark Schlaefli, Paul Gottwig, James Viola, Stacy Sheard, Miller Stallings, Rick Kenin, Nicole Battjes, and François Lassale.

Above: Are these photographers waiting for Taylor Swift? Tom Cruise? VERTICON celebrities have blades, engines, and a max payload, as demonstrated by this group watching aircraft depart during the fly-out that began immediately after the show's close on Mar. 13.

Left: Two students from an Idaho State University team, the Flying Spuds, race the clock to troubleshoot and adjust a switch within a thrust reverser control system, one of the events in the Aerospace Maintenance Council (AMC) Competition, which was held on the VERTICON show floor on Mar. 11. While the Spuds didn't take home the top prize, Eliza Ward, shown at left, received the AMC Professionalism Award for student competitors, as well as a $350 grant from the Northrop Rice Foundation toward the costs of FAA A&P certification tests.

What will make headlines at VERTICON 2026? Join us in Atlanta, Georgia, Mar. 9–12, with exhibits open Mar. 10–12, for the world's largest vertical aviation conference and trade show to find out!

VAI/f-stop photography

Sikorsky's Next Act(s)

Sikorsky's HEX/VTOL (hybrid-electric vertical takeoff and landing) technology demonstration aircraft could fly as early as 2027.
(Image and photos Sikorsky/Lockheed Martin)

OEM offers both legacy product improvement and out-of-the-box thinking.

By Mark Huber

"WE RUN LIKE A START-UP," says Igor Cherepinsky, director of Sikorsky's Innovations. Sikorsky formed Innovations in 2013 as an advanced concepts lab to address what the company saw as the three main challenges of vertical flight: speed, autonomy, and intelligence.

"When we recruit, we try to find people … who like working on aviation and vertical lift but are also open to working on other things," says Cherepinsky. "I can go from wearing a suit and briefing vice presidents on what we are doing, to putting on jeans and going to the hangar and working on control systems, writing code, or designing hardware. That's the neat part of it. We try and find people like that who can do everything—software engineers doing demos, driving ground stations, developing code. You name it, we do it."

While recruits have solid technical backgrounds, Innovations seeks talent from a variety of sources, including leading engineering schools and parent company Lockheed Martin, as well as people who are interested in working on "cool problems."

The core staff of Sikorsky Innovations numbers around 60, but they are augmented by people from the larger Sikorsky enterprise as needed. Over the past year, 200 to 300 people worked on Innovations' current crop of projects—programs that hold the keys to the company's future.

The day-to-day feel in Innovations is informal but intense, almost like one would find in Silicon Valley. Engineers—some in T-shirts—work collaboratively with

offices adjacent to lab space.

"We're open to ideas, some would say crazy ideas," says Cherepinsky. "But unlike a tech start-up, we have a much more defined mission: to develop new products for the vertical lift mission of Sikorsky."

Richard Benton, Sikorsky VP and general manager

Igor Cherepinsky, Sikorsky Innovations director

Innovations is part of virtually every development project at Sikorsky, such as the X2 family of fast compound coaxial-rotor helicopters, including the Raider X and Defiant X, designed for the US Army's Future Attack Reconnaissance Aircraft (FARA) and Future Long-Range Assault Aircraft (FLRAA) programs.

The X2 technology demonstration aircraft achieved a forward speed of 250 kt. in level flight in 2010, a feat that later won its development team the prestigious Robert J. Collier Trophy from the National Aeronautic Association. Despite the army's 2022 decision to award the FLRAA contract to Bell Textron (and outright canceling the FARA program in 2024), Richard Benton, Sikorsky VP and general manager, recently said the company remains confident in the X2 technology.

Sikorsky is exploring possible applications for the X2, including NATO's Next Generation Rotorcraft Capability concept competition. In 2024, NATO awarded related study contracts to Airbus, Leonardo, and Sikorsky parent Lockheed Martin to deliver a new class of medium helicopters between 2035 and 2040.

Innovations will be a big part of that effort, as well as several others for the company. The list of innovative programs Sikorsky is working on, as described below, is long and diverse.

S-92 Phase IV Main Gearbox

Sikorsky expects FAA certification later this year for a new main gearbox (MGB) for the S-92 helicopter featuring an auxiliary lubrication system that automatically engages in the event of primary oil pressure loss. This eliminates the

Sikorsky spent $100 million developing the new main gearbox for the S-92.

need for immediate landing after a loss of oil pressure and allows flights to safely reach their destination.

Sikorsky spent more than a decade and $100 million developing the new MGB and subjecting it to more than 800 hours of testing. The new gearbox will be part of the S-92A+ upgrade kit.

The S-92 helicopter is popular in the offshore energy industry, where many aircraft log more than 1,500 hours annually. It's also used in search-and-rescue operations and for VVIP (very very important person) transport, including as the new VH-92A, designated Marine One when the US president is aboard.

Sikorsky has announced several other enhancements to the S-92 in recent months, including increased scheduled inspection intervals and a one-time life extension for specific MGB housings. The company says these enhancements will eliminate more than a full year of downtime caused by inspections and allow operators to safely keep their aircraft in service—and generating revenue—longer. The total earned-life credit is up to 1,200 hours or 3,600 ground-air-ground cycles, representing an additional 12 to 18 months of use for an average S-92 offshore oil operator and more than 24 months for others, according to Sikorsky.

Along with the new gearbox, Sikorsky is continuing to support the installed fleet of nearly 300 S-92 helicopters with comprehensive product support. In April, the company announced its new Total Assurance Program maintenance support deal for the Bristow Group. With 60 S-92s flying its livery, Bristow is the largest fleet operator of the model. The agreement includes power-by-the-hour coverage that includes over 90% of replacement costs for parts. The S-92 has a lifetime availability average of over 90%, according to Leon Silva, Sikorsky VP of global commercial and military systems.

Bristow recently signed a long-term agreement with Sikorsky that includes the company's Total Assurance Program, which provides aftermarket support for Bristow's fleet of 60 S-92s.

Matrix Autonomy

In 2013, Sikorsky announced its Matrix platform—a combination of systems and software that improves the capability, reliability, and safety of flight for autonomous, optionally piloted, and piloted vertical takeoff and landing (VTOL) aircraft. Since then, the company has shown steady progress for this autonomy platform, as well as new applications for it.

Sikorsky first demonstrated the technology in 2013 aboard a specially fitted S-76B helicopter. Subsequent additions included sensor suites and data links for progressively complex mission requirements, enabling functionality in low-altitude, obstacle-rich environments.

The success of these flights paved the way for Matrix to be installed on optionally piloted Black Hawk helicopters for demonstration programs with the US Army and Marine Corps, thanks to a collaboration between Sikorsky and the Defense Advanced Research Projects Agency (DARPA) on the Aircrew Labor In-Cockpit Automation System (ALIAS) that dates to 2015.

During demonstration flights in 2022 in Yuma, Arizona, an unmanned Black Hawk equipped with the ALIAS system flew missions that included long-endurance medical resupply, cargo delivery, and casualty evacuation. Demonstrated operations included nap-of-the-earth flights

In 2022, an unmanned Black Hawk equipped with Sikorsky's Matrix autonomy technology flew as part of a US DARPA demonstration project in Arizona.

(flying fast and low while using terrain to mask the aircraft's presence), troop resupply with an external load, and rerouting midflight to evacuate a casualty.

In late 2024, Sikorsky announced plans for 2025 demonstration flights for the US Marine Corps Aerial Logistics Connector program. Using an optionally piloted Black Hawk, the flights will show how an autonomous aircraft can resupply and sustain Marines in a contested battlespace.

"Aircraft with Matrix autonomy can safely and reliably perform a variety of complex missions, including internal and external cargo transport with no one on board," says Sikorsky's Benton. "With the Marine Corps, we will explore how an autonomy-based fleet of uncrewed aerial systems and rotary- and fixed-wing aircraft can sustain the expeditionary force with precision resupply during distributed, high-tempo operations."

The Marine Corps announcement follows a demonstration of autonomous, unmanned Black Hawk flights for senior US Department of Defense officials at the annual meeting of the Association of the United States Army in October 2024. From the trade show floor in Washington, D.C., mission goals were sent to the helicopter more than 300 miles away at Sikorsky's Stratford, Connecticut, headquarters. The aircraft autonomously took off, hovered, flew a field circuit, and landed.

Sikorsky is also testing the Matrix autonomy platform for civil applications. During the early 2025 Southern California wildfires, Sikorsky Firehawks proved to be an invaluable tool for day/night fire suppression missions. The multimission Firehawk is a Sikorsky S-70, specially modified by United Rotorcraft, fitted with a 1,000-gal. drop tank, snorkel, and related systems and equipment.

Sikorsky's rotor blown wing UAS in January successfully demonstrated a transition between horizontal and vertical flight.

SEE
Sikorsky successfully fly a rotor blown wing UAS

Because of the aircraft's 160-kt. speed and maneuverability, it can quickly and effectively apply water and/or retardant on blazes.

The California Department of Forestry and Fire Protection (CAL FIRE) and local fire departments across the state operate 24 Firehawks, with CAL FIRE receiving three more this year. Kate Grammer, Sikorsky regional sales lead for the Firehawk, told POWER UP that the company intends to place a demonstrator within the California market for a fully configured Matrix-enabled Firehawk in the coming years.

In fact, Sikorsky already is moving in that direction. On May 1, it announced that it is partnering with Rain, one of the companies in the emerging "firetech" sector that intends to apply advanced technology to wildfire suppression.

In a late-April demonstration in California, ground operators used Rain's wildfire suppression software to assign a number of common aerial firefighting tasks to a Matrix-equipped Black Hawk. During the successful demonstration, Sikorsky safety pilots were hands-off the controls as the Black Hawk extinguished staged propane and brush fires.

The Matrix-equipped aircraft flew 24 hours during two weeks of flight. The suppression missions were flown over wildfire-prone terrain at altitudes up to 3,300 ft. in wind gusting to 30 kt., and the helicopter was fitted with a 324-gal. Bambi Bucket attached to a 40-ft. line. A crewed Orange County (California) Fire Authority Sikorsky S-76 airborne command helicopter flew alongside the autonomous Black Hawk, demonstrating communications interoperability of the autonomous aircraft with a human-piloted helicopter in the same fire traffic area.

The Matrix package on the Black Hawk included fly-by-wire controls, satellite data link, and onboard thermal and vision cameras. Sensors mounted on the aircraft geolocated the fire and streamed video to the ground operator's Rain tablet for situational awareness and mission planning. Using the tablet, the ground commander was able to instruct the Black Hawk to find water, fill the bucket in hover, find the fire and determine its size, calculate flight path and speed, compensate for wind, and determine when to release water to achieve the desired coverage.

"Sikorsky and Rain have integrated two autonomy systems: our Matrix technology that controls the flight of any crewed or uncrewed aircraft, and Rain's wildfire mission autonomy system that finds and tracks the fire, develops a suppression plan, and navigates the aircraft to drop water onto the target," says Sikorsky's Benton. "With this layered autonomy system, incident commanders and pilots can choose a level of autonomy suitable for their mission."

Rotor Blown Wing UAS

Matrix will also be a big part of Sikorsky's jump into the unmanned aircraft system (UAS) market. The company announced earlier this year that it had successfully validated the advanced control laws to fly its battery-powered rotor

The HEX aircraft platform features a tilting wing, as opposed to tilting rotors and/or nacelles.

blown wing UAS in both helicopter and airplane modes. The 115-lb., twin prop-rotor prototype sits on its tail to take off and land like a helicopter and transitions to horizontal forward flight for long-endurance missions.

"Combining helicopter and airplane flight characteristics onto a flying wing reflects Sikorsky's drive to innovate next-generation VTOL UAS aircraft that can fly faster and farther than traditional helicopters," says Benton.

The prototype has demonstrated operational stability and maneuverability across all flight regimes, and the company says it has the potential to scale the VTOL design to larger sizes that will use hybrid-electric propulsion. All Sikorsky rotor blown wing variants will include the Matrix technology that enables aircraft autonomy.

In January, the 10.3-ft.-composite-wingspan aircraft completed more than 40 takeoffs and landings, as well as 30 transitions between helicopter and airplane modes. In horizontal flight, the aircraft reached a top cruise speed of 86 kt. According to Sikorsky's Cherepinsky, the data collected indicates that the aircraft can "operate from pitching ship decks and unprepared ground when scaled to much larger sizes."

Other applications include search and rescue, firefighting monitoring, humanitarian response, and pipeline surveillance. Large variants will enable long-range intelligence, surveillance, and reconnaissance missions as well as piloted-drone teaming operations, in which a piloted aircraft directs one or more UASs.

HEX VTOL Aircraft

In 2023, Sikorsky announced plans to develop its HEX platform, an autonomous, hybrid-electric, high-speed VTOL aircraft prototype. The HEX design is unique, featuring a tilting wing, as opposed to tilting rotors and/or nacelles, which have been the most common form of tiltrotor technology to date.

The first flight of a HEX aircraft could occur by 2027. The demonstration aircraft is substantial: 9,000 lb. and 40 ft. long, powered by a GE CT7 engine. Production aircraft could eventually scale

up to 30,000 lb., positioning them as potential commuter aircraft, capable of delivering passengers between urban centers.

Cherepinsky says the goal of the HEX program is to "break the paradigm" that vertical lift aircraft are more expensive to operate than fixed-wing aircraft.

"We're interested in vehicles that operate the way normal helicopters are used to operating but roughly doubling the range," he says, with speeds in the high-200–kt. range.

To keep manufacturing costs low, Sikorsky envisions a family of HEX products featuring systems with a high degree of commonality. With that goal, Sikorsky is designing the power electronics, motors, and controls in-house and liberally using 3D printing for complex, sophisticated components such as forgings and castings.

According to Cherepinsky, developing the HEX prototype has enabled "lots of learning" for the Innovations team, which has already been through "several generations" of electric motor design. The first aircraft is already being assembled, and power-on and ground runs could commence in short order.

As with many new aircraft in development, HEX aircraft aren't intended to replace traditional helicopters, Cherepinsky says. He expects the limited hover time of HEX aircraft to make them unsuited for some missions, such as search and rescue or construction. "These aren't meant to be long-term hover machines. … They aren't going to hover for two hours to pick somebody out of the water."

A Full Plate

It's fair to say that Sikorsky Innovations has no shortage of projects. And while the team tends to thrive on intensity, they do things to relieve stress, including bringing in pizza and flying remote-control airplanes and helicopters. Cherepinsky's current favorite is his fully aerobatic 700-size electric helicopter.

"It's fun right up until you do something wrong—and it crashes."

__Mark Huber__ is an aviation journalist with more than two decades of experience in the vertical flight industry.

The US helicopter industry posts its safest record in 25 years.

The Safety DIVIDEND

By Mark Huber

HELICOPTER FLYING ACHIEVED RECORD safety last year. And that's no accident.

In 2024, the US helicopter industry posted its lowest number of fatal accidents and its lowest rate of fatal accidents per 100,000 flight hours in 25 years.

The reasons why are many. More companies offer flight data monitoring hardware, software, and analysis to augment operators' safety management systems, and autopilots and stability augmentation systems are now standard equipment on various light helicopter models. Virtual- and augmented-reality simulation reduce the cost of and increase the effectiveness of training. Perhaps most important, the vertical aviation community is increasingly embracing a structured safety culture.

At a US Helicopter Safety Team (USHST) All-Hands Seminar presented at VERTICON 2025 in Dallas, Texas, this past March, FAA aviation safety coordinator Lee Roskop presented a slew of data that, on the whole, showed improved safety performance by US helicopter operations (see "2024 Safety Stats for US Fatal Helicopter Accidents," opposite).

The fatal accident rate has been steadily declining since 2020, when it was 0.79; the 2024 rate was 0.44 fatal accidents per 100,000 flight hours. The total count of 13 fatal accidents for the year was the lowest in the past 25 years. Roskop called the results "pretty amazing numbers."

There were only 4 fatal accidents in the first 6 months of the year and 10 months when there were either zero or only 1 fatal accident. In 2024, from Feb. 9 to Apr. 26, no fatal accidents occurred; that 76-day streak was the longest period without a fatal accident since a 107-day run in 2020.

The fatality rate of 1.02 per 100,000 flight hours was 24% lower than the previous 5-year average and 17% lower than the previous 10-year average. The overall fatality count of 30 was comparable to the best years on record, 2015 and 2016, when 28 were recorded each year. Roskop noted that 20% (6) of 2024's fatalities occurred in just 1 accident and that 6 of the 13 fatal accidents had at least 3 fatalities.

The overall accident rate, including both fatal and nonfatal events, of 2.99 per 100,000 flight hours was also the lowest in 25 years and only the third time during the period when

VA/Dianne Bond

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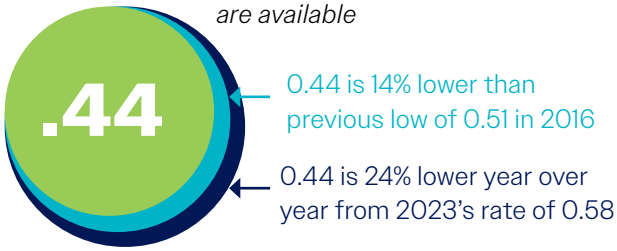
how to recognize the early signs of uncontrolled flight

2024 Safety Stats for US Fatal Helicopter Accidents

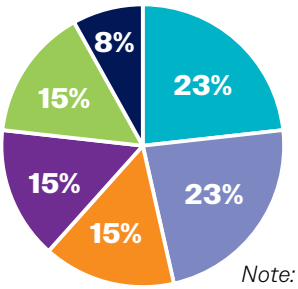
The figures below represent data collected by the FAA and include all accidents that occurred in the United States (including offshore operations) by US-registered helicopters. All rates are per 100,000 flight hours.

FATAL ACCIDENT RATE: 0.44

Lowest on record for 25 years where flight hours are available



FATAL ACCIDENTS BY INDUSTRY SECTOR

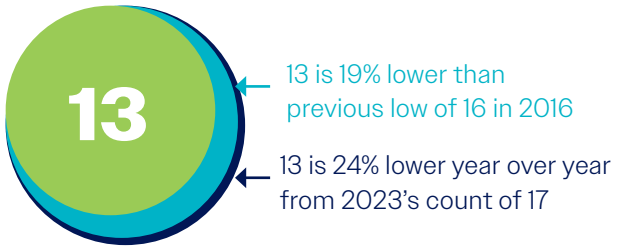


Personal/Private (3 events) – 23%
Aerial Application (3 events) – 23%
Commercial (2 events) – 15%
Air Ambulance (2 events) - 15%
Air Tour/Sightseeing (2 events) – 15%
Law Enforcement (1 event) – 8%

Note: values don't add up to 100% because of rounding.

FATAL ACCIDENT COUNT: 13

Lowest on record for 25 years



LEADING CAUSES OF FATAL ACCIDENTS

The following accident types accounted for 47% of all fatal accidents from 2019–24, down 9% from 2009–18, when they made up 56% of the total.

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the rate dipped below 3.5. The overall number of accidents, 88, was the second-lowest on record in 25 years and 13% lower than the 101 accidents recorded in 2023.

The graphic above also lists the leading causes of fatal accidents, which continue to be loss of control in flight, striking objects during low-altitude operations, and unintended flight into instrument meteorological conditions (UIMC). As an example of efforts to reduce these numbers further, Chris Baur, USHST industry cochair, points to a recent USHST/FAA Rotorcraft Collective video, "Recognize the Early Signs of an Undesired Aircraft State," available at tinyurl.com/mr3aymez, that discusses loss of control in flight.

Perhaps most interesting, Roskop noted, was that the fatal accident rate for Part 135 commercial operators, 0.46 per 100,000 flight hours, exceeded the rate for Part 91 operations, 0.34 per 100,000 flight hours. Roskop called that "pretty remarkable."

"The 2024 numbers provided us with welcome news about the US helicopter industry's improved safety performance, but I'm concerned that the fatal accident rate for Part 135 operators now exceeds that for Part 91 operations," says Baur. "I encourage POWER UP readers to join the USHST at usht.org and familiarize themselves with the innovative and free safety products and services available.

"Please advocate for enhanced safety—whether in your personal performance, in your organization, or as a resource for the helicopter community," says Baur. "These statistics demonstrate that our efforts can make a difference."

Going forward, the USHST has set ambitious goals to improve vertical aviation safety. According to Baur, these include the industry's first dedicated Peer Pilot Program (see "Are You Mentally Fit to Fly?" on p. 64) and increasing access to aviation weather cameras and robust COPTER IFR solutions.

The safety dividend revealed in the 2024 data is real and measurable. And it's yours for the taking.

Mark Huber *is an aviation journalist with more than two decades of experience in the vertical flight industry.*

Caught in a Jam

Unsecured iPad causes deadly loss of control.

By David Jack Kenny

IN THE FIXED-WING WORLD, "STERILE COCKPIT" refers to the discipline of refraining from all nonessential actions and communications during critical phases of flight, usually defined as ground operations, takeoff, climb, approach, and landing. Airline crews are typically required to maintain a sterile cockpit below 10,000 ft.

Rotorcraft, of course, rarely see altitudes above 10,000 ft. outside of mountain rescues—but there's an argument to be made that at low altitudes, *all* phases of flight are potentially critical. An alternative definition of the sterile cockpit—keeping it free of extraneous items that could cause distraction, or worse—also bears considering.

The Mission

On Jul. 19, 2022, a Columbia Helicopters CH-47D (Chinook) flown under contract to the US Forest

The CH-47D hovers above the river before the accident. *(NTSB/Witness Video)*

Service (USFS) arrived at a helibase near Salmon, Idaho, to conduct water drops on the Moose Fire, a rapidly expanding blaze on the south side of the Salmon River that was ignited by an unextinguished campfire. Fire-suppression flights began the following day, using a 2,600-gal. bucket on a 200-ft. longline to dip water from the river, and continued on Jul. 21.

The Aircraft

The accident helicopter, N388RA, was originally manufactured by Boeing in 1972 and delivered to the US Army as a CH-47C. In 1988, it was remanufactured as a CH-47D; the army accepted it in 1989.

The aircraft was sold to Columbia Helicopters in 2014 in a US General Services Administration auction, and then, in 2022, it was overhauled again. ROTAK Helicopter Services accepted delivery of the aircraft on Jun. 5, 2022, with a total airframe time of 7,666.4 hours and zero hours Hobbs time. The Chinook had flown another 69.5 hours as of Jul. 20, 2022.

The CH-47D uses a pair of Honeywell T55-GA-714A turboshaft engines, each rated for 4,777 shaft horsepower, to drive two fully articulated three-bladed main rotors mounted fore and aft. Seen from above, the forward rotor rotates counterclockwise and the aft rotates clockwise, thus neutralizing torque reaction and providing yaw as well as pitch-and-roll control without need for a tail rotor. The aircraft was rated for a maximum gross weight of 50,000 lb. and was type certificated in the restricted category with operating certificates for Parts 133 (external load), 135 (on-demand air taxi), and 137 (aerial application).

An aerial view of the accident site. *(NTSB Photo)*

The Crew

Both pilots held commercial certificates for rotorcraft helicopter with instrument and instrument instructor ratings. The 41-year-old pilot was also rated in both single- and multi-engine airplanes. He claimed a total of 5,120 hours of flight experience, of which 4,015 were in the CH-47 or its civilian counterpart, the Boeing BV234.

The pilot had completed vertical reference and external-load proficiency checks on Jun. 27, 2022, using a 200-ft. longline "and was approved to conduct Class A, B, and C external loads in a CH-47D helicopter." He had also "demonstrated proficiency ... [in] Part 137 firefighting operations in the CH-47D."

The 36-year-old copilot had 1,727 hours of flight experience. He began second-in-command (SIC) training in the CH-47D on Feb. 27, 2022, and had

logged 6.6 hours as pilot in command during training and positioning flights. On Jul. 20 and 21, he logged 5.0 hours as SIC.

The Flight

The dip site was only about a quarter mile from the section of the fire the crew had been assigned to work, enabling them to make numerous drops in 1.5 hours of flight time.

At about 16:42 local time, a local resident recorded a 38-second video clip of the helicopter establishing a 200-ft. hover over the river with the empty bucket swinging close to the water's surface. It abruptly climbed about 125 ft. in 8 to 9 seconds while maintaining a relatively steady heading, then yawed to the left. After turning about 180 degrees, the aircraft pitched down, with the left yaw accelerating until the helicopter crashed into the riverbank and the water.

USFS firefighters on the scene saw the accident and rescued the pilots. They were rushed to nearby hospitals but subsequently died of their injuries. Both deaths were attributed to "multiple blunt-force injuries"; toxicology tests were negative.

The Investigation

The final accident report from the US National Transportation Safety Board (NTSB) describes the organization's examination of the wreckage in considerable detail. Item by item, they eliminated possible causes of mechanical failure throughout the flight-control system.

Various fractures of control rods were consistent with impact damage, while the associated bell cranks "moved freely and were not seized."

All four integrated lower control actuators remained in their normal locations, and the mechanical connections between their outputs and the first-stage mixing unit were intact. Both mixing units remained installed, and the control rods connecting them were intact except for the left yaw/right roll rod, which had fractured in overload.

The pressure-side expansion plugs had been blown out of the aft swiveling upper boost actuators, but this was attributed to ground impact forces.

The sudden downward pitch may have resulted from the copilot accidentally bumping the cyclic as he leaned forward to remove the iPad.

One puzzling anomaly provided a clue, however. The pilot's antitorque pedals were present but had disconnected from their respective pedal position-adjustment plates, so that moving the pedals did not move the corresponding jackshafts. The right pedal position lever "had moved beyond its limit and was pointed left." The copilot's pedals remained attached to their position-adjustment plates, and the right pedal was adjusted to the "3," or middle, position, consistent with the copilot's height. The left pedal, however, was in the "5," or full-forward, position.

During the recovery of the wreckage, the crew's company-issued Apple iPad was found in the river. Three distinct gouges had been cut into one of the long sides of the device, and the case was bent from the back toward the screen.

Using an identically configured CH-47D, investigators found that if an iPad was put between the copilot's left pedal and the airframe next to the heel slide support assembly, operation of the pilot's left pedal caused the iPad to fall farther and become jammed between the copilot's left pedal and the heel slide support assembly.

Application of the pilot's right pedal squeezed the iPad between the pedal and the support assembly; a sharp vertical metal piece on the bottom of that assembly aligned with the gouges in the recovered iPad. Right pedal input by the pilot "forced the iPad to apply more pressure to the copilot's pedal adjustment lever." With their restraints fastened, neither pilot would have been able to reach it.

A Boeing simulation study found that although only 50% pedal input would be needed for the initial 180-degree left turn, full left pedal would be required to produce the yaw angle seen in the last three seconds before the crash.

These findings led investigators to conclude that while the flight crew set up for the dip, the "unsecured iPad" fell under the copilot's left pedal and got jammed between the pedal and the airframe, preventing the pedals from returning to neutral.

The sudden downward pitch may have resulted from the copilot accidentally bumping the cyclic as he leaned forward to try to remove the iPad. The pilot probably reduced thrust in an attempt to slow the helicopter's rotation, which allowed the helicopter to continue descending, and his efforts to help free the iPad by applying additional pedal pressure allowed it to slip farther out of reach while accelerating

the yaw. Probable cause was therefore found to be: *The failure of the flight crew to properly secure a company-issued iPad, leading to its migration into and jamming of the copilot's left pedal, preventing the pilot from arresting a left yaw, and resulting in a loss of control.*

The operator confirmed that there was no reason for the crew to have used the iPad during this flight. The copilot should have been monitoring the cargo-hook load gauge during the pickup, but, based on the NTSB reconstruction of the damage to the tablet, it seems highly likely that he was also holding the tablet in his hands, precipitating the accident sequence when the device somehow slipped from his grasp.

The Takeaway

The version of ROTAK's company operations manual in effect at the time of the accident placed strict limits on in-cockpit use of portable electronic devices (PED): *The use of mobile phones and PED for company personnel is strictly prohibited during critical phases of flight, ground operations, maintenance, and vehicle operations. Exceptions to this can be made for emergencies that require immediate communication and when utilization of the device is critical to the task being performed.*

Whether the copilot was actively using the iPad or just holding it, the NTSB report notes that "the security of all items in the cockpit during an operation is necessary to ensure that they do not adversely interact with critical systems, such as flight controls."

The risk of pilot distraction posed by portable electronics has been increasingly obvious for decades, but solid objects left loose in the cockpit can also cause interference of a much more tangible kind.

David Jack Kenny *is a fixed-wing ATP with commercial privileges for helicopter.*

Are You Mentally Fit to Fly?

USHST program offers free, confidential counseling to vertical aviation community.

By Mark Huber

IN THE VERTICAL AVIATION INDUSTRY, WE PAY substantial—and fully warranted—attention to a pilot's physical ability to fly. But how often do we focus on an equally important aspect of fitness: mental health?

Confidential peer counseling has been around for centuries as a proven and cost-effective mental health tool. More recently, it's attracted greater interest from the international aviation community, propelled in part by a trio of high-profile airline crashes that killed more than 600 people between 1999 and 2015—accidents that were associated with flight-crew mental health issues. The most notorious of these events occurred in 2015, when a Germanwings copilot locked himself alone in the cockpit and intentionally flew into a mountainside, killing all 150 aboard.

While widely adopted by the

FIND OUT
more about the USHST's Peer Pilot Program

fixed-wing community, peer-to-peer counseling has been slow in coming to the vertical aviation community. Until now.

USHST Peer Pilot Program

At VERTICON 2025, which took place in March in Dallas, Texas, VAI and the US Helicopter Safety Team (USHST) launched the Peer Pilot Program, a confidential, no-cost, nonjudgmental resource for mentally stressed or distressed pilots and other members of the vertical aviation community. The program matches participants, including pilots, maintenance technicians, and support personnel, with trained, volunteer peer counselors. The counselors have relevant experience in various sectors of vertical aviation, including offshore, air ambulance, air tour, corporate, and charter operations.

The Peer Pilot Program offers "nothing but assistance for you," USHST industry cochair Chris Baur said during a recent FAA safety webinar. He noted that members of the vertical aviation community often face unique stressors, such as grisly scenes during search-and-rescue or air ambulance missions, that could trigger a mental health event—one that can be mitigated with proper peer support.

FAA Rethinking Mental Health Approach

In its 2023 report, the FAA's Mental Health and Aviation Medical Clearances Aviation Rulemaking Committee (ARC) recommended expanding "the use and promotion of peer support programs," emphasizing the need to create "a nonpunitive pathway for disclosing mental health conditions and treatments."

But pilots have been reluctant to self-report mental health issues to colleagues, employers, or aviation medical examiners (AMEs) for fear of being grounded.

"Why aren't they seeking out mental health support when they need it most?" asks clinical and organization psychologist Aedrian Bekker, cofounder of the Somerset, England–based Centre for Aviation Psychology, which is administering the Peer Pilot Program for the USHST. "Well, it's pretty obvious [why]: there is jeopardy attached. If I were to raise my hand [for help] when I was going through a difficult time in my life, my life could get even more difficult because I may be grounded and it may take me a long time to get back in the air."

Bekker says the FAA considers that concern to be an impediment that prevents aviators from seeking help. He says the agency is now pursuing a "groundbreaking" approach, based on recommendations in the ARC report, that encourages people to get the assistance they need.

A peer program is integral to this approach because, Bekker adds, peer counselors are "not licensed mental health professionals. They're not intended to be. They're there to support a colleague," and their presence and availability "lower the barriers and really encourage people to ask for help."

Peer counselors can also be the gateway to getting additional help and resources, Bekker notes, though, according to Jessica Auslander, 80% of the time talking to a peer can resolve the issue.

Auslander, an expert in addiction psychology who specializes in working with pilots and aviation organizations, is the lead mental health professional for the Centre for Aviation Psychology in the United States. "We know that 80% of the calls that come to a peer support group stay at that level," she says. "The most valuable thing they can give you is that [peer] connection. They get it. They're living this too."

While participating peers are trained in topics including psychological first aid, suicide assessment and response, and active listening, Auslander emphasizes that "when you call them, they're not going to judge you. They don't know you, your friends, or your family. So you feel free to talk to them about anyone you want. They're going to help

Download this poster at verticalavi.org/safety/spotlight-on-safety. *(VAI/Mike Hershauer Image)*

you figure out what's going on and what your next move could be."

Sometimes, it takes as little as one call—occasionally, one or two follow-up calls. But if more is needed, those resources are available.

"That's where I come in," Auslander says. "I can help you figure that piece out. Aviation mental health is important not just as viewed through the safety lens, but for your quality of life. The brain is an organ of the body, and like any other organ, it needs care and support. Peer support is great for prevention, but if you need more support, that's OK too."

Talking to a peer counselor resolves issues 80% of the time.

Auslander stresses that the FAA has become more progressive in its approach to mental health since the Germanwings crash. AME guidelines now clear pilots with up to 2 of 11 different mental health diagnoses as well as psychotherapy on topics including work/life balance, relational stress, and other things that "people typically talk about in peer support.

"We want you to get that [mental health] support early on," and "peer support is a great place to start," Auslander says. And although seeing a mental health professional is reportable, she says most AMEs check it off for her clients in private practice "because it's not a safety issue."

Still, fear surrounding professional mental health services remains, says Bekker. "The moment you ask for help and start claiming it through your health insurance, you expose yourself to a world of pain." Both Auslander and Bekker say the FAA is looking to address that concern.

"The FAA is taking a completely different stance on mental health," insists Auslander. "The peer support services are free and completely confidential. When you talk to a peer, everything stays between you and that peer" unless the guidance seeker shares that they're going to harm themselves or someone else. By law, the latter situation must be disclosed.

Helicopter Pros Need Support Too

"It's great that we've been able to reach out to the helicopter community," says Bekker, noting that the vertical aviation industry sometimes feels like a forgotten child in the larger regulatory scheme of the fixed wing-world. Alluding to the particular missions and characteristics of helicopter operations, he says the community has unique "stresses and strains."

Marc Struckmeyer understands those pressures better than most, which is why the pilot decided to become one of the program's first peer counselors. "It's really good to be able to vent, get things off your chest with no repercussions," says Struckmeyer, who currently flies a Bell 407GX air ambulance.

After his 13-year-old son committed suicide, Struckmeyer and his wife, a flight nurse, had only a few weeks of personal time off. Then it was back to work. "There was really no support for myself or my wife. And now it's 2:00 in the morning and I'm on a scene flight."

With his son's death still very much on his mind, Struckmeyer worried about how to keep his patient and crew safe "with all this stuff going on [in my head] and not having anyone to talk to about it.

"We all have outside-of-work issues," Struckmeyer says. "It's important that pilots have an outlet, a place they can go, a safe place. [The program's peer counselors have] all gone through significant peer support training, and it's recurrent every year. It's just something I really wanted to get involved with. I am honored to be one of the program's peer support people."

But the Peer Pilot Program isn't just for pilots, Struckmeyer emphasizes, noting that flight nurses, mechanics/engineers, dispatchers, and others are all welcome to take advantage of the resource. "It's open to everybody."

For more information on the Peer Pilot Program, visit ushstpeer.org.

Mark Huber *is an aviation journalist with more than two decades of experience in the vertical flight industry.*

Integrity in Aircraft Maintenance

Aviation challenges us to prove ourselves each day.

By Zac Noble

AVIATION MAINTENANCE HAS BEEN RAISED as a possible contributing factor in an Apr. 10, 2025, air tour helicopter accident in the Hudson River near Jersey City, New Jersey. All six people onboard perished in the incident, in which the aircraft apparently broke apart in midair. The actual cause of the accident is unknown, as the US National Transportation Safety Board (NTSB) has not completed its investigation, and so any focus on maintenance as a causal factor is simply speculation.

The helicopter model that crashed

has one of the best safety records in vertical aviation. Nonetheless, this accident once again highlights that aircraft are designed, built, flown, and maintained by humans, and no machine is perfect. Even new aircraft off the same assembly line can exhibit discrepancies in performance within a few hours of operation.

If an aircraft is flown and maintained within design specifications, you can't draw a correlation between that aircraft's operational readiness rate and its run time. I've had the honor of flying both new and old airframes. If they're maintained properly, it's difficult to tell the difference between the two once the new-leather smell has dissipated and the glossy factory paint has dulled.

Trusting Your Teammates

One way age *can* matter lies in how the aircraft has been operated and maintained. A new owner of an old aircraft can only hope the machine they just purchased has been flown and maintained to the guidelines of the pilot's operating handbook or rotorcraft flight manual. I say "hope" because the aircraft's safety and reliability depend on two factors.

The first is the pilot's integrity in accurately logging the aircraft's flight data and any perceived issues. For many years, our industry had no onboard electronics to catalog events such as over-temps, over-torques, and times outside of prescribed limits. Rather, we relied on the pilot to self-report those events, as well as any issues with the aircraft's equipage, systems, or performance. To obtain accurate data, it is essential that pilots treat this responsibility as one of their most important.

Of course, integrity isn't important only for pilots, which brings us to the second factor. When a mechanic or engineer signs the logbook confirming that a task has been done, everyone downstream of that action is trusting that it was performed per the maintenance manual, Instructions for Continued Airworthiness, or a means acceptable to the applicable aviation regulator.

Recently, I learned of an aircraft purchase where the new owner bought the machine from someone in a nearby state. The aircraft had been recently serviced but needed further maintenance and an inspection.

During the sale, the seller told the new owner the aircraft had had a fresh oil change performed, along with other maintenance. Upon inspecting the aircraft, the new owner's mechanic discovered that the engine-oil filter hadn't been changed in 10 years! Some other maintenance, it turned out, was poorly documented and incomplete.

In aviation, our integrity is regularly tested.

Do the Right Thing—Always

In aviation, our integrity is regularly tested. Each preflight, logbook entry, or maintenance signoff—in fact, everything we do—prompts a question: should we do the right thing, even when no one else is watching? The accident reports tell us that the only acceptable answer is yes, always. Safety and people's lives depend on it.

Do the right thing, and be complete with your logbook entries. If you're maintaining or inspecting the aircraft, be sure to enter into the maintenance record of the machine or component(s) the information required in 14 CFR 43.9 and 43.11, respectively. And of course, as 14 CFR 43.12 warns, never intentionally falsify a maintenance record.

There isn't enough time or money to rebuild every aircraft at each inspection. We count on the pilots who flew it and the mechanics who worked on it before us to have done their jobs correctly.

Fugae tutum!

Zac Noble *is VAI's director of flight operations and maintenance.*

Norma Lantz

Sales and marketing executive excelled in roles at Safran Helicopter Engines, Boeing.

NORMA LANTZ, EXECUTIVE VICE PRESIDENT of airframer sales and marketing with Safran Helicopter Engines USA, died on Mar. 27, 2025.

Prior to joining Safran, Lantz built a distinguished career at Boeing, where she started in 1989 as an administrative associate before advancing into supervisory roles and transitioning to Labinal Power Systems (now Safran Electrical & Power) in 2003. At Safran, Lantz excelled in management roles, culminating in her appointment as director of sales and marketing in 2008. In 2015, she completed a two-year international assignment with Safran in Paris, France, before returning to the company in Texas.

As a champion of women in aerospace, she was an active member of the International Aerospace Womens Association (IAWA), where she served on numerous committees, facilitated panel discussions at IAWA events, and hosted VERTICON (formerly HAI HELI-EXPO®) Connect events annually in the Safran booth.

Lantz's dedication to the aerospace industry, enthusiastic personality, and genuine connections with colleagues and business partners earned her widespread respect and admiration. She had an exceptional ability to make others feel valued, uplifting people around her by recognizing their achievements and providing steadfast support during challenging times.

As an organ donor whose generous gift saved multiple lives, Norma's compassion extended even beyond her life. She will be missed, but her spirit, kindness, and joyful energy will live on through her family, her colleagues, and the countless people she touched.

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S512 five-axis aerial surveillance system
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VAI Member — Manufacturers & Suppliers

Photo by Mark Bennett

Shadowed by a drone capturing the action, a Bell 206B-3 operated by A&P Helicopters (also a VAI member) flies a Gyro-Stabilized Systems S512 five-axis aerial surveillance gimbal while flight testing new mapping features. The system includes 4K optical and high-definition mid-wave infrared sensors with a laser range finder, supported by software for object tracking, augmented reality map integration, and navigation.

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