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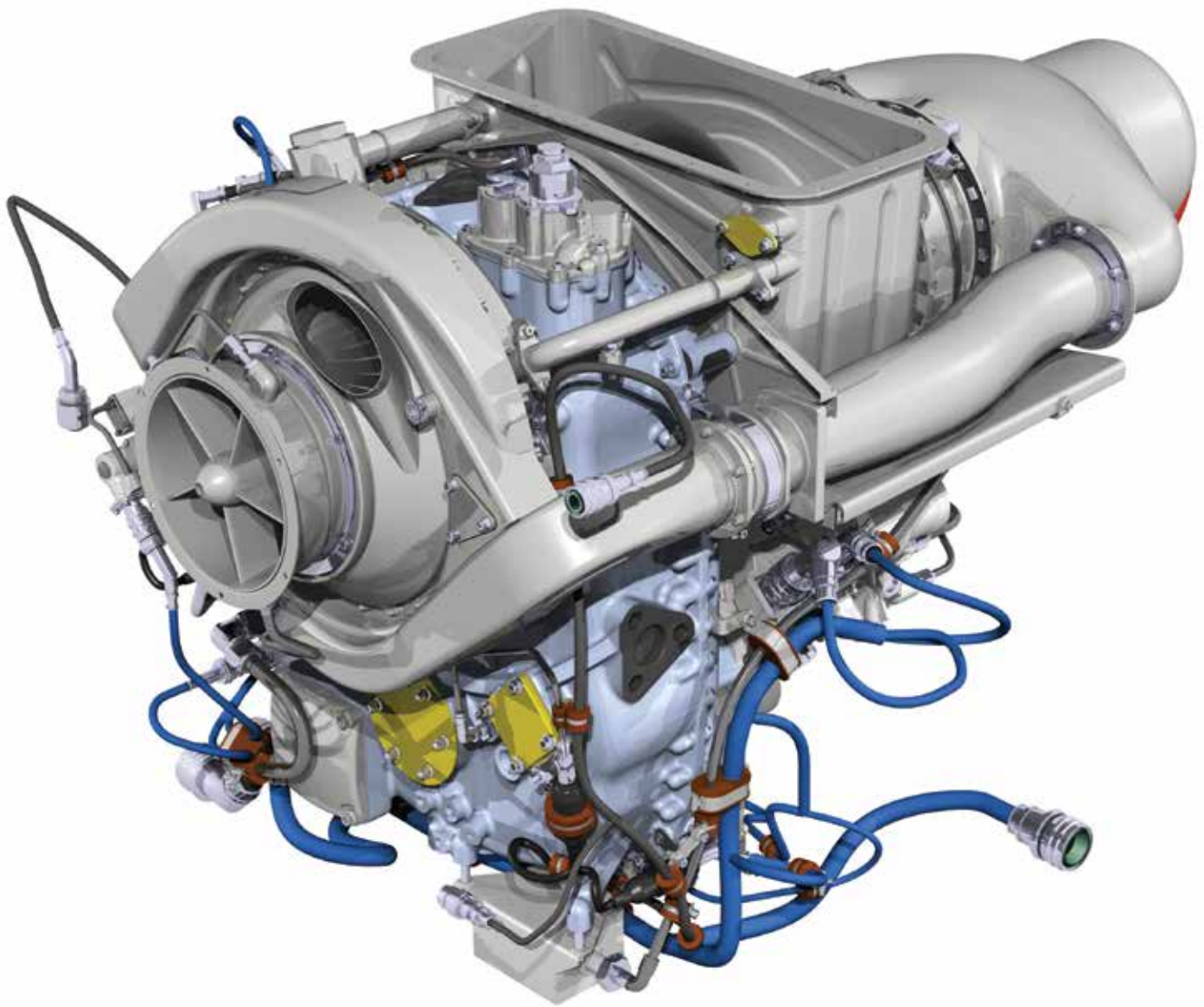
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ON THE COVER: Andrew Richard Hara photographed our cover subject, Tim Hunter, signaling to a Paradise Helicopters Bell 407 on the Big Island of Hawaii. The landing zone, which is exclusive to the operator, sits on the north side of the Kohala mountain in a spot accessible only by helicopter. Hunter, who flies for Paradise Helicopters, experienced a life-changing event when the helicopter he was piloting in June 2022 suddenly lost its tail boom. Read his remarkable firsthand account of the accident and how he saved six lives, including his own, on p. 42.

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Got something to say to the international helicopter industry? We're listening. Email story ideas, manuscripts, or questions to letters@rotor.org. Visit rotor.org/write for more information.

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Jen Boyer, owner of Flying Penguin Communications, is a professional journalist. She holds commercial, instrument, flight instructor, and instrument instructor ratings in helicopters and a private rating in airplanes.



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Greg Brown, VAI's director of education and training services, served in the US Marine Corps as a CH-53 pilot. He holds a master's degree from Embry-Riddle Aeronautical University and an FAA commercial pilot certificate for fixed- and rotary-wing. He is a helicopter CFII.



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Johnny Buscema is president and CEO of S.A.F.E. Structure Designs, a manufacturing company specializing in custom maintenance fall-protection platforms for civilian and military operations.



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Cade Clark, VAI's chief government affairs officer, has directed association advocacy programs for more than 20 years. Growing up, Cade worked at an FBO, where he learned to fly.



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John Fogel is product manager at Amglo, where he has worked for more than 15 years in product development, qualifying products with the FAA.



Jaasmin Foote

Jaasmin Foote joined VAI as the association's social media manager in March 2020. She holds a bachelor's degree in English.



Chris Hill

After an aviation career in the US Army and Coast Guard, Chris Hill oversaw aviation safety management systems throughout the USCG as aviation safety manager. VAI's senior director of safety, Chris holds an ATP rating.



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Tim Hunter has piloted light rotorcraft up through complex heavy-lift helicopters for aerial firefighting, utility, and other operations for 13 years. Prior to earning his pilot's license, Tim joined the US Marine Corps after high school, serving in radar and encrypted-information system repair.



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David Jack Kenny is a fixed-wing ATP with commercial privileges for helicopter. He also holds degrees in statistics. From 2008 through 2017, he worked for AOPA's Air Safety Institute, where he authored nearly 500 articles.



Christine Knauer

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



Gina Kvitkovich

Gina Kvitkovich, VAI's senior director of communications, joined the association in 2011 after decades of honing her skills in writing, editing, and publishing. As editor of ROTOR, she is responsible for every error in the magazine that you're reading—and for some of the good stuff, too.



Allison McKay

Allison McKay draws on more than 20 years of experience developing and implementing strategic initiatives for various industry organizations. She served on the Women in Aviation Advisory Board to provide independent strategies and recommendations to the FAA. The board submitted a report in March 2022 outlining a plan to increase diversity in the industry.



James T. McKenna

An award-winning journalist, James T. McKenna has covered airlines, military aviation, spaceflight, and helicopters for *Aviation Week*. Twice editor in chief of *Rotor & Wing*, he's written for the Flight Safety Foundation, *The New York Times*, *USA Today*, *Vertical*, and *Vertiflite*. He specializes in covering accident investigations and safety.



Andrew Parker

Andrew Parker is VAI's copy editor. A professional editor and writer for more than 20 years, his previous experience includes serving as editor-in-chief of *Rotor & Wing* magazine, online editor of *Vertical* magazine, managing editor of *Aviation Maintenance* and *Avionics* magazines, and news editor of *Professional Pilot* magazine.



John Shea

John Shea, VAI's senior director of government affairs, joined the organization in 2019. He came to VAI from the National Association of State Aviation Officials, where he was interim president in 2018 and lead government affairs representative from 2017 until he left the organization. Previously, as a legislative staffer, John advised multiple members of Congress on transportation policy.



Katia Veraza

Katia Veraza is VAI's manager of government affairs and regional relations. Before joining VAI, she was a managing consultant for government affairs. She earned her master's degree in political science from the Autonomous University of Barcelona.



Jayne Wood

Jayne Wood joined VAI as assistant director of publications and media in November 2022, returning to the part of communications she loves—writing, editing, and publishing—after more than a decade as communications director for a nonprofit association. Before that, she was a communications consultant serving both associations and corporations.



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By Nicole Battjes



Nicole Battjes is the owner and director of operations for Rainbow Helicopters, a Part 135 air tour operation based in Honolulu, Hawaii, and the 2023–24 chair of the VAI Board of Directors. She is a dual-rated pilot, flight instructor, and check pilot with more than 3,500 flight hours in helicopters. An active industry volunteer and advocate, Nicole has worked on issues such as community compatibility and SMS implementation for small operators in the Hawaiian Islands.

The Future Is Now

Introducing Vertical Aviation International.

I'M PROUD TO WRITE TO YOU for the first time as chair of the Board of Directors of Vertical Aviation International! It's an exciting time for the whole association as we take on a new identity and expand our leadership and services to the entire vertical aviation industry.

While the name, logo, and tagline are all new, they should feel familiar. That's because they reflect you, our members.

The board recognized several years ago that the emergence of new vertical flight technologies presented an opportunity for the association to rebrand and expand its purpose. But a decision of this magnitude required careful thought. Since the association's founding 75 years ago, our members have consistently advanced the boundaries of what vertical aviation can do, so it only made sense to seek their input—your input—about whether we should rebrand.

The board and the association's leadership set out to do just that. We conducted in-depth interviews with industry leaders, held workshops, and surveyed the entire membership. We asked what you thought, what you hoped for, and what you envisioned for yourself and the association. We took all that feedback and used it to build a Strategic Industry Plan.

The first strategic initiative in the plan—to unify the industry around a new vision of vertical aviation—was only possible if we assumed a more inclusive identity, and so the decision was clear. The board voted unanimously in 2022 to rebrand because that was the desire of the members.

We continued to seek your input over the past year as we designed the new brand. We've thought carefully about every detail to make sure our new brand focuses on what unites us—the unique capabilities of all vertical aviation aircraft.

My favorite part of the new logo is the power bar that forms the "I" of VAI. It perfectly captures VAI's vision to lead the evolution and expansion of vertical flight, or as our new tagline puts it, "Powering Up." In this case, "Up" encompasses all aircraft capable of a vertical or short takeoff and landing—regardless of their missions or how they are powered or piloted. "Up" also connects our past to our future. Within the power bar, I can hear the sound of a helicopter's rotors reaching full flight, see a fully charged eVTOL rising from a vertiport, and feel the sensation of vertical flight.

With the new brand comes a new name for our annual conference and trade show, starting with next year's event, which will be VERTICON 2025. This name connects directly to our modern identity that enables us to be more inclusive of the entire industry. Although the show will have a new name, it will retain the essential features that make it a must-attend event: education sessions, industry panels, the latest aircraft and technology, and the opportunity to build your network with other vertical aviation professionals.

Our journey as VAI is just beginning. Over the next few years, the board and the staff will continue to implement the strategic plan, and we will continue to seek your input on our airspeed, direction, and altitude. I can't wait to see where we'll be in five years. But I know one thing for sure: We Power Up! 🚁

Nicole

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By James A. Viola

A New Beginning

A unified industry is critical to our future success.



James A. Viola is VAI's president and CEO. After a career as a US Army aviator, he joined the FAA, where he served as director of the Office of General Aviation Safety Assurance before joining the association. A dual-rated pilot, James holds ATP ratings in both airplanes and helicopters and is a CFII. Contact him at President@verticalavi.org.

THE DECISION TO REBRAND HELICOPTER ASSOCIATION INTERNATIONAL (HAI) as Vertical Aviation International (VAI) brings growth and unity to our community while enabling innovation to thrive. (You can find more information about our new brand, including our vision and purpose, in the VAI Brief on [p. 15](#).)

If you design, build, operate, fix, fly, or supply vertical flight aircraft or support the industry, you belong as a member of VAI. Yes, our increasingly diverse fleet may use different fuels or specialize in different missions, but VAI will focus on what unites us: the unique capabilities of all aircraft that can execute vertical or short takeoffs and landings. In 2022, we announced our [Strategic Industry Plan](#), where we defined five initiatives focused on positioning the industry for growth. Below is a brief update on our efforts to realize those initiatives; for a more comprehensive account of our activities over the past year, please consult the VAI 2023 Annual Report. If you don't already have a copy, you can find it online at rotor.org/annualreport.

Strategic Initiative 1: Unify the Industry. Our rebrand as VAI is the first crucial step toward unifying the industry. We will continue to promote professionalism, safety, and the need to fly neighborly as we educate people outside our industry about the essential services we provide.


Strategic Initiative 2: Engage All Stakeholders. Our rebranding widens our span of influence, as we can now engage with the complete vertical aviation ecosystem worldwide. Through our affiliation with the International Federation of Helicopter Associations, we will increase our engagement with the International Civil Aviation Organization (ICAO) and work with them and other stakeholders to shape global aviation standards. VAI advocates for performance-based standards that embrace innovation, as well as a single infrastructure standard that accommodates all vertically capable aircraft.

Strategic Initiative 3: Elevate Safety Culture. Safety is fundamental for the success of our industry. VAI is dedicated to elevating safety standards across aviation, strengthening its safety culture at all levels. We will continue to provide our members with access to numerous safety programs, including our new Operational Risk and Resilience Accreditation Program, introduced at HAI HELI-EXPO 2024 (for more on this new member benefit, see [p. 24](#)).

Strategic Initiative 4: Develop Business Resources. VAI offers more than 30 benefits for our company members and individual members, including health and loss-of-license insurance, legal resources, and high-quality education tailored to vertical aviation operations.

Strategic Initiative 5: Develop a Pathway to Attract and Maintain the Best Workforce in the World. Addressing the shortage of skilled aviation professionals is a VAI priority. (See "Building the Aviation Workforce of Tomorrow," [p. 52](#), to learn more about VAI's efforts in this area.)

To all VAI members reading this: if you are happy with the value you receive from your investment in us, please tell your industry friends and colleagues. If you are not satisfied, please email me at President@verticalavi.org and let me know how we could do better. Your feedback, both positive and negative, is essential for our success.

Our transformation to VAI signifies a new beginning. I hope you are as excited as I am about the many opportunities before us. We have our destination (vision), our purpose (mission), and our flight plan (strategic initiatives). It is now time to power up and begin our journey! 

A handwritten signature in blue ink, appearing to read 'J. Viola', written in a cursive style.

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US States Begin New Legislative Year

Bills introduced during these sessions could significantly influence the vertical aviation industry.

US STATE LEGISLATORS NATIONWIDE gathered in January to kick off their legislative sessions, engaging in discussions and decisions that will shape state policies on critical issues ranging from taxation to transportation to government spending. The output of these sessions includes resolutions, amendments, and bills that hold the potential to become meaningful laws.

In 2024, all but four state legislatures are set to hold regular sessions, with Montana, Nevada, North Dakota, and Texas convening only in odd-numbered years. With legislative activities already underway in nearly all 50 states, bills introduced during these sessions could significantly influence the vertical flight industry—both positively and negatively.

VAI (formerly HAI) takes a proactive approach to monitoring state legislation and engaging with legislators to safeguard the interests of the association's members. By closely tracking these legislative activities, VAI can address proposed

laws that may harm the vertical aviation industry, contributing to well-informed policies and fostering a favorable regulatory environment for growth.

Simultaneously, VAI leverages its monitoring efforts to support measures and initiatives beneficial to its members and the industry at large.

VAI's expanding footprint brings forth new opportunities and partnerships, including increased government access and collaboration with industry leaders. The organization encourages states to enact legislation aligning with federal preemption that focuses on

infrastructure enhancement, zoning, workforce development, advanced air mobility (AAM) planning, tax incentives, and appropriations for aeronautics departments.

Our legislative monitoring and advocacy efforts in all 50 states has uncovered noteworthy developments, some recent examples of which are highlighted below.

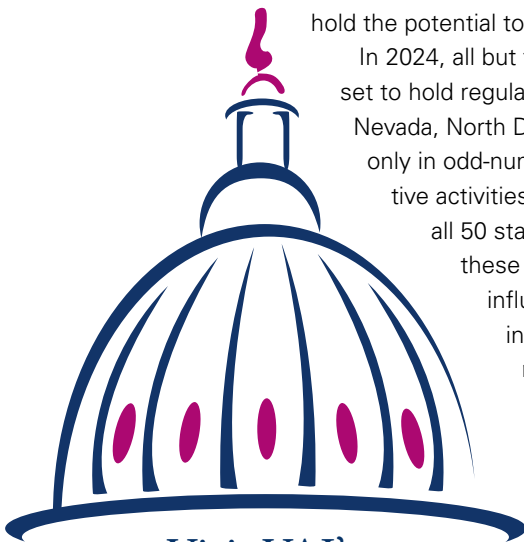
Florida

Policymakers in Florida have introduced legislation setting a maximum allowable tax for aircraft sales or use while also expanding tax exemptions for such transactions. This move provides predictability and cost savings for stakeholders, including rotorcraft operators, contributing to the state's economic growth. These exemptions act as significant financial incentives for operators and manufacturers, positioning Florida as an appealing destination for business operations.

Massachusetts

As VAI expands its presence in the Northeast United States, our commitment to enhancing collaboration with key stakeholders remains a top priority. Actively engaging with members and contributors in the region, such as Boston MedFlight and MassMutual, is integral to our mission. VAI's outreach extends to entities including the Massachusetts Department of Transportation and nonprofit organization MassAutonomy, ensuring that our interests are not only acknowledged but also accorded due significance.

Our ongoing and constructive discussions in Massachusetts encompass a range of topics, including green infrastructure initiatives such as electric aircraft charging hubs and airport electrification. We're also addressing hangar availability at Hanscom Field (KBED), delving into AAM, and exploring avenues for integrating sustainable aviation fuel (SAF) into the commonwealth. Such dialogue exemplifies our dedication to fostering meaningful partnerships and advancing the interests of



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Legislative Action Center
rotor.org/lac

our members and the vertical aviation industry as a whole.

New York

New York City Mayor Eric Adams (D) recently voiced his endorsement for vertical flight, unveiling plans to transform the Downtown Manhattan Heliport (KJRB) into the world's first facility tailored for electric flight infrastructure. VAI President and CEO James Viola and members of VAI's Government Affairs team were present alongside representatives of VAI members Joby Aviation, Beta Technologies, and Volocopter during a visit to the heliport on Nov. 13, 2023. Flight demonstrations were conducted from the facility, providing a tangible demonstration of the current state of future aviation.

Simultaneously, VAI's ongoing discussions regarding the [Gateway Program](#) aim to sustain existing vertical transportation operations while exploring avenues for long-term success in the broader New York–New Jersey metropolitan area. The Gateway Program, a multibillion-dollar initiative, is set to construct two vital tunnels beneath the Hudson River, addressing persistent issues of traffic congestion for both vehicles and railways in the Northeast Corridor. While VAI acknowledges the project's significance and necessity, we believe it poses a potential threat to operations at the West 30th Street Heliport (KJRA) location and, consequently, the entire New York City heliport network.

VAI supports the Gateway Program in principle but is engaged in ongoing dialogues with all stakeholders involved, emphasizing the preservation of existing vertical transportation operations in the vicinity. These discussions extend beyond mere preservation efforts to exploring opportunities for sustained access and success for our industry in the greater New York–New Jersey metropolitan area in the future.

As the New York State Legislature and the New York City Council commence their work this year, we remain vigilant concerning proposals that may impose limitations on vertical aviation operations in and around New York City. A crucial aspect of this endeavor involves maintaining open communication with elected officials and others to ensure a comprehensive understanding of the industry's needs and contributions.


North Carolina

As in Florida, policymakers in North Carolina are proposing legislation to expand aviation sales-tax exemptions, which would benefit the vertical flight industry by removing sales and use taxes on rotorcraft parts and accessories. Such exemptions could result in significant cost savings for companies in the rotorcraft industry, making repairs and maintenance more affordable.

Washington State

Noteworthy developments in the Evergreen State include proactive legislation aimed at boosting the AAM industry. The state is allocating significant funds for sustainable-aviation grants, focusing on technology that promotes sustainability. A proposal to allocate money from aeronautics funding aims to create a comprehensive statewide AAM aircraft plan. The plan is designed to integrate AAM into existing modal transportation systems, including recommendations for land-use planning and infrastructure needs for vertiports. Additionally, proposed governance structures, regulatory mechanisms, and policies ensure FAA oversight, fostering equitable vertiport development and integration into statewide transportation plans.

As the new legislative year begins, we advise our members to stay informed through VAI's [Legislative Action Center](#), which provides updates on legislative developments across the states as well as the federal government. The association will share introduced bills and seek feedback to ascertain their potential impact on member businesses and operations.

Whatever your home state, don't forget to look for opportunities to invite your local elected officials to your headquarters. Educate them about your business and show them all that you do for the community. Need help in connecting with your elected representatives? Reach out to us at advocacy@verticalavi.org. As the state sessions move forward, stay tuned for updates to help you navigate the legislative landscape effectively. 

VAI Members

VAI is here for you! Contact advocacy@verticalavi.org with your legislative challenges.

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ROTOR WASH

INDUSTRY DATA, TOPICS, ADVICE, HAPPENINGS, ISSUES, AND NEWS TO KEEP THE ROTORS TURNING

VAI BRIEFS

Vertical Aviation International Is the New Identity of Helicopter Association International

AS OF FEB. 27, 2024, THE WORLD'S leading association for the vertical aviation industry will be known by a new name. Helicopter Association International officially became Vertical Aviation International, or VAI, during the HAI HELI-EXPO 2024 Welcome Reception on Monday, Feb. 26.

Why the name change? In a nutshell: to reflect our intention to become a more inclusive association that brings together *all* parts of vertical aviation—including helicopters. As

the world's vertical aviation fleet continues to expand and diversify, our industry is strengthening its ability to provide vertical flight's unique benefits to communities around the world. And by embracing all

vertical aviation as one united industry, we will increase the power of our advocacy on its behalf.

Here's what this change will mean for

our members:

- HAI members will become VAI members, with the same access to their member benefits
- No changes are anticipated for member dues at this time
- The HAI Board of Directors and staff will now become the VAI Board of Directors and staff
- The board will review member classifications, the VAI bylaws, and other aspects of governance to ensure they align with the association's strategic initiatives
- VAI will continue to provide connection, advocacy, safety, education, and ➤



SEE VIDEO



10



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What beats a good blade slap? The visual of a powerful Chinook coming in for a landing at HAI HELI-EXPO® on Mar. 4, 2023! With it catching the attention of over 1 million people and reaching almost 40,000 engagements, there's no surprise this video was our top post of 2023!



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- support for its individual and company members in the form of meaningful benefits and superior service.
- We have included below some additional information about the rebrand. However, if you still have questions, concerns, or comments about the rebrand, feel free to reach out to VAI President and CEO James Viola at president@rotor.org. We may have a new name, but member service is still our passion!

Why did HAI rebrand to VAI?

To be the world’s most vital membership association for vertical aviation, we had to expand our scope and influence to represent all forms of vertical flight. By joining together as a united industry, we’ll strengthen our ability to advocate for that industry with legislators, regulators, and other stakeholders so that communities around the world are strengthened by the power of vertical flight.



Who made the decision to rebrand the association?

The HAI Board of Directors decided to rebrand the association. In the Strategic Industry Plan unanimously approved by the board in October 2022, Strategic Initiative 1 directs the

association to “unify the industry around a new vision of vertical aviation.” This rebranding is part of that strategy to become a more inclusive association that brings together all parts of vertical aviation.

How were the new name, logo, colors, and other brand aspects chosen?

The rebranding of our association, led by the Board of Directors over the past 18 months, has been purposeful and deliberate. Each element of the new brand—the name, vision, purpose, colors, tagline, and even the new name for our annual conference and trade show—was supported unanimously by the board.

To assist in the process, the association engaged a marketing agency with expertise in rebranding associations. The board felt strongly that this effort should be driven by data, so the agency reviewed past data and conducted new research, including:

- Interviews with members and other industry stakeholders and other member outreach
- An analysis of the vertical aviation industry

- Surveys and secondary data research
- Brand workshops.

Who should join VAI?

VAI embraces all aircraft that are capable of vertical or short takeoffs and landings (V/STOLs). If you build, fly, fix, supply, or operate V/STOL aircraft, or if you work in or support vertical aviation in any way, you belong in Vertical Aviation International!

Are helicopters still important to the association?

Yes! VAI’s purpose is to fuel the growth of the vertical aviation industry, and the helicopters that perform so many essential missions to keep modern society running are not going anywhere. They have unique capabilities that can’t be duplicated by any other aircraft. Helicopters will continue to play an important role in serving communities around the world, and VAI is very proud to represent the people who build, operate, fix, fly, support, and supply them.

Aside from the name, what else will change?

Our members can expect VAI to provide the same services—connection, advocacy, safety, education, and support for individuals and businesses—they currently receive. There’s complete continuity of leadership by the VAI Board of Directors and staff. We’re not eliminating any programs or services but instead have rebranded to grow. Membership is open to any company, pilot, maintenance technician, or aviation professional who builds, flies, fixes, supplies, or supports vertical aviation. Student memberships are available as well.

What does the VAI tagline, *Powering Up*, mean?

Powering Up is what VAI does for the vertical aviation industry. We empower all vertical aviation stakeholders to grow and succeed through connection, advocacy, safety, education, and support for businesses and individuals.

What about HAI HELI-EXPO?

We’re changing the name of HAI HELI-EXPO to VERTICON, and we hope you’ll join us for VERTICON 2025 in Dallas, Texas, Mar. 10–13! The show will still feature: ➤



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- ■ Vertical aviation manufacturers and suppliers from all around the world, including the major airframe, engine, and technology OEMs
- A complete education program, including long-form education courses, shorter education sessions on safety and business topics, and manufacturer technical briefings
- Industry meetings, including with VAI working groups, on every topic important to the vertical aviation industry
- An industry job fair and Mil2Civ workshop
- Plenty of opportunities to expand your network and reconnect with old friends.

Will my membership dues change?

We have no plans to change VAI membership dues at this time.

What about HAI’s publications, ROTOR magazine and ROTOR Daily?

VAI will continue to publish the association’s quarterly magazine and daily e-newsletter. Updated and redesigned versions of each will be launched later this year. In the meantime, current subscribers will continue to receive the publications.

Where should I go to get more information, renew my membership, or update my member profile?

We’re working on a brand-new website, verticalavi.org, but it’s not ready yet. We expect to roll out the new website by August 2024, but don’t worry—in the meantime, you can use either the association’s new Web address, verticalavi.org, or its current one, rotor.org, to access your VAI member account. During our transition to the new website, both Web addresses will take users to the site currently in use.

VAI BRIEFS

VAI CEO Keeps Learning at Robinson Safety Course

THIS PAST JANUARY, JAMES VIOLA, VAI’s president and CEO and a dual-rated pilot, attended the Robinson Helicopter Co. (RHC) Pilot Safety Course for the R66 in Torrance, California. His key takeaway: manufacturer safety courses remain valuable, no matter your experience level.

“I first attended the course in 2006 and went back every other year for my CFI renewal, then I got busy [working for] the FAA and, later, HAI,” Viola shares. “Working with the US Helicopter Safety Team, International Helicopter Safety Team, and Vertical Aviation Safety Team, I realized it had been a while since I’d been to the Robinson course, and I was interested to see how it has evolved.”

Viola found that much had changed. The late Frank Robinson, the company’s founder, used to speak directly with attendees at the beginning of every course, while Tim Tucker, an FAA designated pilot examiner, conducted the class. Now, RHC President Kurt Robinson, Frank’s son, talks with attendees for the first hour of the course, about aircraft accidents. Afterward, Bob Muse, chief safety instructor, takes the reins.

Besides the R66, the 3.5-day course is also available

“I guarantee that attending the manufacturer safety course for the aircraft you fly will almost always teach you something you didn’t know before.”

—James Viola, VAI president and CEO

for the R22 and R44 and includes a flight with one of Robinson’s safety pilots. Having previously attended the latter two courses, Viola signed up for the R66 class this time.

“I found the level of people in the class fascinating,” Viola recalls. “It was a very international group of people at all levels of skill, and everyone was deeply focused on the course. I got the feeling none of them were there because they had to be there; they were there because they wanted to be there.” ➤

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Hall C, Booth # 3936



➤ The class focused heavily on understanding the aircraft, its limitations and emergency procedures, and the attendees' own limitations as pilots. Viola found that even though he has a helicopter ATP rating, he still learns something every time he attends the course.

"It's a part of safety, to always be on the lookout for ways you can be a better and safer pilot," Viola says. "I guarantee that attending the manufacturer safety course for the aircraft you fly will almost always teach you something you didn't know or realize before."

New to the RHC Pilot Safety Course for 2024 is an introduction to VAI and its member services, including safety programs. Course attendees receive a code to purchase two years' worth of VAI membership for the price of one.

VAI BRIEFS

VAI Adds New Regional Reps in Northeast and Western United States

VAI HAS HIRED JOSH ROUSSEAU AND CHUCK STREET as Northeastern US regional representative and Western US regional representative, respectively, to provide local support for VAI members in both areas. With Rousseau based in New York and Street in California, the two positions expand VAI's ability to provide more direct face-to-face support to members, represent members in local government meetings, and advocate directly for VAI members.

"With growing needs from members in California and Hawaii, along with increased legislative attempts to limit and eliminate helicopter operations in the New York City–New Jersey area, VAI identified two highly connected industry professionals not only in the helicopter industry, but also in local and state government, to help represent and support our members," says John Shea, senior director of government affairs at VAI. "Both Josh and Chuck are very well-known in their local helicopter communities, have experience promoting the benefits of our industry

with elected and appointed officials, and have already developed positive relationships with people across several layers of government in their regions."

Rousseau brings more than 25 years of experience in the highest levels of New York State government, including the state assembly assistant speaker's office. He has held executive leadership posts at critical state agencies, including the New York State Department of Transportation, and has served as the state's assistant secretary for legislative affairs. His background also includes developing relationships with public and private stakeholders, advocates, and elected officials, providing him access to a vast network of key individuals to help support VAI member concerns.

Street began his career as a helicopter pilot and broadcast traffic reporter in the Los Angeles area in the 1980s. He soon became a well-known member of the helicopter industry, later working to form advocacy organizations to promote and protect helicopter operations in Southern California. Street has represented the industry in community and municipality meetings, worked with elected and appointed officials, and developed relationships with government officials in various cities, counties, and states.



Josh Rousseau



Chuck Street

Both Rousseau and Street regularly meet with local VAI members and nonmembers alike, learning about their concerns and issues and providing assistance and advocacy support.

Members in the Northeast can contact Rousseau at JoshR@verticalavi.org, and members in California and Hawaii can contact Street at ChuckS@verticalavi.org.

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VAI BRIEFS

2023 Aerial Work Safety Conference Blends Education, Networking

THE ANNUAL VAI AERIAL WORK SAFETY CONFERENCE brought together more than 360 members of the vertical aviation industry’s aerial firefighting and utility sectors Dec. 9–11, 2023, in Boise, Idaho. The event offered attendees safety-focused educational presentations, regulatory updates, group and one-on-one discussions with government agency representatives, vendor exhibits and product demonstrations, and several networking opportunities.

“This has been a hugely valuable experience for me. I’m new to utility, and the classes and briefings have been instrumental in my learning.”

– Jeremiah Powell, director of safety, Billings Flying Service

Two large ballrooms served as central gathering places for the conference. The first ballroom hosted presentations and panel discussions. The second offered a breakout room with tables for networking during meals and snack breaks. Spread throughout the second ballroom were 39 vendor booths, representing government organizations such as the US Forest Service (USFS) and the US Department of the Interior (DOI), aircraft manufacturers, product manufacturers and suppliers, software producers, and service providers.

“This has been a hugely valuable experience for me,” said attendee Jeremiah Powell, director of safety at Billings, Montana-based Billings Flying Service. “I’m new to utility, and the classes and briefings have been instrumental in my learning. And the networking—hearing about others’ challenges, learning that many of us face the same issues and how others have worked through them—has really been invaluable.”

The three-day event began with a breakfast meeting for VAI members and representatives of the USFS and the DOI, followed by meetings of the VAI Aerial Firefighting and Natural Resources Working Group and

the VAI Restricted and Experimental Category Aircraft Working Group.

The next two days featured panel discussions with the FAA, USFS, and DOI; educational presentations; and regulatory updates. The conference included two sessions at which attendees could obtain FAA aviation maintenance technician (AMT) credits: “Aircraft Maintenance through a Legal Lens,” presented by aviation attorney Sarah MacLeod of Obadal, Filler, MacLeod & Klein, PLLC, and “Turbine Engine Hygiene,” presented by Mike Broderick of Rotordoc.

“This is my first HAI event, and one of the biggest takeaways I got was the educational presentations, such as Sarah MacLeod’s ‘Legal Lens’ talk,” said Josh Kammler, assistant director of safety at HLH Aviation of Calhoun, Georgia. “That really helped me establish a better understanding of everyone’s responsibility in maintenance.”

Courses that qualified for FAA WINGS credit included the importance and aspects of a family assistance plan from the National Transportation Safety Board’s Transportation Disaster Assistance Division, and an introductory look at the growth and use of uncrewed aircraft in the utility and public safety sectors from nonprofit educational organization Droneresponders.

“We’ve been expanding into UASs [uncrewed aerial systems], and I appreciated the presentation on their uses and growth,” said David Ames, assistant chief pilot at the Washington State Department of Natural Resources (WDNR). “We’ve really appreciated seeing people, and the networking opportunity. Some of our vendors are here ..., and it’s helpful to talk with others who do the same work.”

Rich Knoth, WDNR chief pilot, added: “I really like the size of this event and that it includes peers in aerial work, utility, and firefighting. You get more one-on-one time with each other and vendors [than at larger conferences].”

Panel discussions and presentations from the FAA, USFS, and DOI, followed by Q&A sessions, were some of the most anticipated and highly attended parts of the conference. Several spirited conversations took place on restricted category aircraft operations, long wait times for government approvals, government inspections, and more.

VAI will host the Aerial Work Safety Conference again this year as a three-day event in mid-November. Stay tuned for more details in the coming months. [🔗](#)

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ROTORCRAFT EVENTS

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35th Annual Women in Aviation International Conference

Women in Aviation International
Orlando, Florida, USA

Learn more at wai.org

Visit VAI at Booth #1014

JUL. 22–26

Farnborough International Airshow 2024

Farnborough International Ltd.
Farnborough, England

Learn more at farnboroughairshow.com

Visit VAI at Booth #3944

JUL. 22–28

EAA AirVenture Oshkosh 2024

Experimental Aircraft Association
Oshkosh, Wisconsin, USA

Learn more at eaa.org

Visit VAI at Booth #363

JUL. 29–AUG. 3

APSCON / APSCON UNMANNED 2024

Airborne Public Safety Association
Houston, Texas, USA

Learn more at publicsafetyaviation.org

Visit VAI at Booth #E229

OCT. 22–24

2024 National Business Aviation Association Business Aviation Convention & Exhibition (NBAA-BACE)

National Business Aviation Association
Las Vegas, Nevada, USA

Learn more at nbaa.org

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2024 Air Medical Transport Conference (AMTC24)

Association of Air Medical Services
Salt Lake City, Utah, USA

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By Christine Knauer

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Even as today's sophisticated digital weather-forecasting tools have supplanted the *Farmers' Almanac*, legacy knowledge and common sense are still critical to a pilot's decision-making process. It's smart to harness all available resources to weather Mother Nature's whims.

Below are five dos and don'ts for your preflight weather planning.

1 DO consult weather cameras. Nothing beats seeing the conditions for yourself. The expanding network of webcam services, including the FAA's 500-plus [weather cameras](#) and [Airservices Australia's weather cameras](#), provides near real-time views of current surface weather conditions. These services are especially valuable when flying in areas that lack air traffic control surveillance, such as mountain passes, or where the weather changes rapidly. "It's been an unbelievably useful

tool in Hawaii," said Casey Riemer, special projects manager for Jack Harter Helicopters, in the Dec. 6, 2022, "[FAA Weather Camera Program](#)" webinar.

"We believe it will be a significant aid in reducing accident rates ... because the weather changes in Hawaii—like in Alaska—really easily and very dramatically." According to the FAA, implementation of the agency's [weather camera service](#) across Alaska resulted in an 85% reduction in weather-related accidents from 2007 to 2014.

2 DON'T rely on just a couple of weather sources. Reports can differ dramatically, especially between automated surface observing systems and crowdsourcing reports, according to the US Helicopter Safety Team (USHST) report *Weather Technology in the Cockpit (WTIC) Research*. Use a variety of weather source types, including crowdsourced observations. Talk with



the [FAA's Flight Service](#), and check METARs, AIRMETs, SIGMETs, weather camera images, historical data, and other sources to understand weather context and trends. An excellent all-in-one source for weather reports is the helicopter low-altitude mode in the Aviation Weather Center's new [Graphical Forecasts for Aviation—Low Altitude](#), which offers expanded capability from the former HEMS Tool. Select the "layers" icon to toggle on additional data, including radar and satellite images.

3 DO consider latency with weather reports. It takes time to capture, process, and submit data, and some technology services are faster than others. Even near real-time data can lag behind the reported condition by 2 to 15 minutes, according to the FAA's Aviation Weather Handbook.

4 DON'T assume that favorable conditions will continue. Sudden weather changes can put your mission at risk. Plan to check weather reports while flying, and make sure you have enough fuel for weather delays. Don't begin an IFR flight with fuel for a VFR flight, said Jason Quisling, senior VP of flight operations and air command for Air

Methods, during the USHST's Oct. 5, 2023, [IFR Weather Camera Summit](#).

5 DO brush up on your meteorology and weather-planning knowledge. Every region—and every season—offers unique challenges. Even experienced pilots need a refresher

when operating in a new area. For specific US regions, for example, start your research with the FAA's Aviation Weather Handbook.

For more on the value of aviation weather cameras, see the two-part May 2023 HAI Spotlight on Safety feature.



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By Chris Hill

Capt. Steve Buhagiar and David Sidorski, Recipients of the 2024 HAI Matthew S. Zuccaro Land & LIVE Award

Two pilots recall the remarkable teamwork that prevented a deadly accident.

ON SEP. 24, 2022, WHILE INBOUND TO HOUMA–TERREBONNE Airport (KHUM) in Louisiana, Capts. Steve Buhagiar and David Sidorski endured a perilous half hour. The Leonardo AW139 the pilots were flying for Bristow Group suffered an electrical fire that melted a collective torque tube, wreaking havoc on the cabin environment, the flight controls, and the helicopter's performance. Both men wondered if they would survive the event.

With Sidorski in left seat and Buhagiar in right as captain, the two high-time pilots launched into rapid problem-solving mode, saving themselves and the four passengers on board. I asked them about their experience that day.



Capt. Steve Buhagiar



Capt. David Sidorski

ROTOR: Set the stage for us. How did the day of the accident start?

Buhagiar: It's a clear VFR day, late afternoon. We're seven minutes from the airport. There's a burning electrical plastic smell, but everything looks fine. Maybe it's the air-conditioning? We turn that off. Then, the whole cabin up front fills with smoke immediately. We lose visibility and the aircraft goes out of control.

You went double IMC inside your cockpit? Are you coupled up on autopilot and flight director?

Buhagiar: Yes. We were at 4,500 inbound, beginning our descent to 500 ft. I had selected Alt A to 500 ft. and asked David to select the modes I needed. When the smoke started pouring in, the rotor rpm went to 83%. The Nr [rotor rpm] was so low the control response was very slippery.

At that low an Nr, was there a low-frequency vibration?

Sidorski: Not really. The aircraft was pitching up, kind of yawing. I couldn't see. My eyes are burning, my lungs are burning. It's all these things at once, [and we're] hearing low rotor rpm while the engines are screaming up to provide power. We're thinking, "Why is this happening?"

You have an automated engine-control system on the aircraft, right, and the engines are trying to fix the problem?

Buhagiar: Yes, I'm assuming [the aircraft is] trying to get the Nr back to 100.

When describing the initial symptoms, you mentioned what sounded like you were climbing like a bat outta' hell.

Buhagiar: Before that, there was a while where neither David nor I was talking. We're both in shock. I didn't know how we were going to survive. I remember thinking, "I just need to start talking, to start working the situation." I say, "David, we need to clear the smoke." That started getting us out of shock mode.

Did you remember your smoke and fume elimination procedure? I'm curious about instinct versus procedural recall.

Buhagiar: [It was] 100% survival instinct. When you can't take your hands off the controls and the aircraft's not responding and you can't see each other and you can't breathe, it's not like, "David, please pull out the QRH [Quick Reference Handbook]."

Sidorski: Definitely survival mode. The



smoke is coming from the entire overhead panel. I can't see my nose in front of my face. I'm thinking, "How do I clear the smoke the fastest way possible?" We can't see and we'll asphyxiate soon.

What did you do?

Sidorski: [After trying a few things], I put my hand through the little window, gave it a couple of tugs, and it snapped in half. The smoke was sucked out.

Time did slow down. I was able to think, "One problem at a time. Clear the smoke, then worry about the next problem."

Buhagiar: Once the smoke cleared, the rotor rpm was still low and controllability was still sloppy. I noticed 140 PI [power index] on each engine. How does this make sense? The engines are at full speed, full power. The rotor rpm is low. The collective is against the floor.

Then, the rpm recovers, but not because of anything we did. We start climbing 1,500 to 1,700 ft. per minute, nose level.

Sidorski: At 145 to 150 kt., our normal cruising speed.

Buhagiar: David brings [engine] No. 1 to idle.

Immediately, the rpm goes to 81. The rotor is going to stall, especially now at altitude. He puts it back. Nr recovers to 100%.

This is an engine mode switch, right—you're moving it from flight to idle?

Buhagiar: Yes. The engine control levers are in the ceiling in the 139, but we'll get to that. We're [6,000 ft.] over the airport. The only thing we can do is gently give it enough forward cyclic to start descending.

The landing gear extension speed on the 139 is 150 kt. It's over 180 indicated with the gear down. I [plan] to make a shallow banked spiraling descent. I don't want to overstress this thing.

It's still going at maximum power and maximum speed, way past Vne [the never-exceed speed]. I don't want it coming apart.

You're still at max speed well above Vne during descent?

Sidorski: We're hauling ass toward the ground. I have no window. We're missing one of our display units. Three out of the four radios aren't working. We have no transponder code. A multitude of things have gone

The day of the accident, 150 miles southeast of New Orleans, in the Mississippi Canyon area, just before the return flight of the AW139. (Photo courtesy Capt. Steve Buhagiar and David Sidorski)



WATCH
how the
pilots landed
the AW139
safely!

continued



An electrical fire that melted a collective torque tube wreaked havoc on the AW139's cabin, flight controls, and performance, leaving both pilots wondering if they would survive the event. (Photo courtesy Capt. Steve Buhagiar)

wrong. Even so, we were not giving up on each other, the aircraft, or the people inside. We're dedicated to flying this thing as much as we can until we can't.

Buhagiar: David contacted Houma Tower and declared an emergency. Maybe it's strange, but I always think about the responsibility of being PIC. We need to make sure we're doing what's required—declare an emergency, brief the passengers, notify the company. Brief the passengers again and tell them when to brace.

Sidorski: We were stable at that point with a second to run through these things.

Buhagiar: So down we go, eventually from 6,700 to 1,000. We're on both engines doing 160 kt. with the collective full down. As we're about to fly past the tower so that they can verify that our gear's down, I say to David, "We're not going to die today. We have an hour to figure this out."

Sidorski: We tried manual mode once more. The PI went up and down. We put it back into auto. Clearly, something was wrong with it.

Why didn't you manually move the levers?

Buhagiar: That's a question we get fairly often, "Did you think about putting it in manual mode and manually moving the levers or beeping the engine control levers with the collective switches?"

We had a 1-2 ECL engine control lever fail caution. Those are moved by an electronic motor and have failed, so the beeper switch won't work. That leaves moving it by hand, but that's difficult to do accurately. We decided not to deal with it.

Where were you?

Buhagiar: First of three laps. David brings the No. 2 engine to idle. This time, the Nr stays put, again, because we're lower. We slowed from 160 to 140. Better, but still way too fast. If I take pressure off the cyclic, it still wants to climb like a rocket.

When we're on final, David brings No. 1 to idle. The rpm goes from 100 to 67 immediately. What helicopter keeps flying at 67% Nr? He puts it back to flight. It spools up and the Nr goes to 100. All of a sudden, we're going around.

Ah, we can use that to land—alternate from flight to idle and back, and work our way down. That's what we did seven or eight times.

Sidorski: We started about 400 ft. agl, 4 or 5 miles south of the airport.

You were taking advantage of loss of efficiency?

Buhagiar: Yes, in idle, [the Nr] would be in the 60s. On the spool up, we'd let it get to 80 or 90, never back to 100.

Sidorski: Each time slowing down 10 or 15 kt.

You didn't let it get to 100 because that forces you to start over again?

Buhagiar: Exactly. Going to 100 brings the speed back and starts a climb.

Sidorski: They say not to go below 90%. We found the aircraft did fly below that. In videos, you could see the blades were coning considerably due to the Nr dropping rapidly into the upper 60s.

Buhagiar: On final, we were over the swamp. I remember that feeling in my stomach.

Like, "If I survive this but land in the swamp, I don't want to have to wrestle an alligator"?

Buhagiar: Right, or have the tree come through the windscreen.

Were you using your power pedal to bleed off energy?

Buhagiar: It was both. I wanted to stay relatively lined up with the runway. I'd flare it and go left pedal, then bring it back the other way. In the video, it looks like I'm making "S" turns. You see the helicopter kind of flare and go side to side. It was now or never. I had David cut the engines. The rpm immediately dropped. I pulled the collective all the way up, everything I could with 67%. I'm thinking, "I'm about to be in a wheelchair the rest of my life. We're still high. I have nothing I can cushion with."

You pulled collective all the way up at 67? That was your starting Nr?

Buhagiar: Yeah. That's all I could do.

That's a 30-ft. drop and Nr is bleeding fast.

Buhagiar: Really fast. I pulled up and we touched down.

Sidorski: It was smooth and cushioned. Then the helicopter started turning and I thought, "This is where we roll and blow up."

Buhagiar: We slide in excess of 800 ft. and veer toward the grass. I know we're both thinking, "Please don't roll. Please don't roll." Fifteen feet into the grass, it came to a stop.

Sidorski: We went into action. I had my left seat flow. Steve had his right seat flow shutting down the aircraft.

When you say flow, do you mean normal shutdowns or an emergency shutdown?

Buhagiar: Bristow adopted a great system of air-line-style flows for start-up, shutdown, cruise. Not a 70-item checklist, just two or three actions each.

What do you want people to remember?

Buhagiar: Keep flying. Keep talking and keep engaged. Push those scared thoughts out of your head and keep working the problem.

Sidorski: I agree. If you're by yourself, keep talking to yourself. Keep working the problem. I think that would have been a fatal flaw if we didn't keep talking.

Buhagiar: I want to add, if you're unfortunate enough to go through something like this, talk about it with other people. Don't keep it to yourself. Don't try and be a tough person. Do what you need to do to cope with it. Personally speaking, there were difficult times in the aftermath, where I only felt normal when I was flying. The rest of my life felt very out of sorts. It was tough.

Pilot mental health is a big deal. What changed for you as a result of this?

Buhagiar: That adrenaline spike lasts for a time and then, suddenly, for me it was that I didn't really care anymore. When I look back at how I was thinking then versus now, I was really in outer space and I didn't realize it.

Sidorski: It was similar with me. Smaller things

didn't seem significant. I'd think, "That's such a little problem. I'll tell you a real problem."

Any changes to training or preflights at Bristow?

Buhagiar: This problem is not something you could preflight or even should have to train for. The steering wheel shouldn't fall off your car while you're driving. It's hard to tell people to practice in the simulator with the collective all the way down.

Congratulations on the award, though it's small compared to surviving. Closing thoughts?

Sidorski: It's fortunate it was us in the cockpit. Since we were really good friends outside of flying, we had a similar mindset. We could communicate effectively and openly.

Buhagiar: It was that friendship and openness between us to share ideas and work together ... that kept us alive. 🙏

Editor's note: See p. 56 for more on Capt. Steve Buhagiar and David Sidorski, the 2024 HAI Matthew S. Zuccaro Land & LIVE Award winners. For the results of the US National Transportation Safety Board accident investigation, read the preliminary report at data.nts.gov/carol.

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Flight Schools Face Demand, Hurdles in International Market

Becker Helicopters, founded in 1996 by Mike Becker (above, first in line) and Jan Becker (not shown), has focused since the start on training international students. (Becker Helicopters Photo)

TRAINING ORGANIZATIONS SERVING international students face strong demand from aspiring and advanced pilots as well as operators worldwide, according to leaders of several schools.

“Prospects are great for the international training segment,” says Capt. Jan Becker, cofounder and CEO of Becker Helicopters Pilot Academy in Marcoola, Queensland, Australia, and a former chair of the HAI Board of Directors.

“A lot of training needs to be done.”

Numerous challenges lie between those prospects and their realization, however, Becker and others say. One such hurdle is the persistent shortage of flight instructors.

“Throughout the industry, there is just a pull” of pilots into other jobs, says Candise Tu, chief flight instructor at Carlsbad, California-based Civic Helicopters. “You’re seeing cycles of people working in flight instruction shorten” as they move into air ambulance, law enforcement, sightseeing,



Fleeing flight instructors and loads of red tape challenge trainers' efforts to help stanch the growing pilot shortage.

By James T. McKenna

and other jobs to replace pilots hired by airlines.

"Pre-COVID, instructors [stayed] around two-and-a-half years after getting their [certificates]," she continues. "Now, I'm requiring a one-year commitment."

Another obstacle affecting international training is countries disagreeing on standards for clearing new pilots to fly at home after training abroad. The European Union Aviation Safety Agency (EASA), for instance, doesn't allow a new pilot returning from US training to convert FAA

certificates to European ones, according to Jared Friend, helicopter operations director at Hillsboro Heli Academy in Troutdale, Oregon.

"You can use your flight training hours" after you return home, Friend says. "But you basically have to retake all of your written exams there."

Also, US training doesn't satisfy EASA requirements for an instrument rating, Friend notes, even if it's done at an EASA-approved US school.

In some nations, unpredictable bureaucratic red tape makes it difficult and overly expensive to start a flight school and bring students in-country. "The single-most pressing issue for helicopter pilots is regulatory reform in individual countries," says Capt. Mike Becker, founder and executive director of Becker Helicopter Services, parent company of Becker Helicopters Pilot Academy.

Such factors squeeze the helicopter pilot pipeline—particularly the supply of experienced junior pilots—at a time when operations are starving for them. "A lot of operators report difficulty in finding qualified pilots," says Cade Clark, HAI's chief government affairs officer.

Pilot Demand to Exceed Supply

Analysts dissect the pilot shortage, which plagues most of aviation, differently. But reports by organizations such as Boeing, international training services and technology company CAE, the FAA, and business consultancy Oliver Wyman concur that the industry will soon be thousands of people short of the numbers needed to replace retiring pilots and support fleet growth.

Some fleet growth may be dramatic. Boeing sees the global airliner fleet increasing 98.2% by 2042, to 48,575 aircraft from just over 24,500 last year. The FAA projects the US commercial aircraft fleet will grow to 10,286 in 2043 from 6,852 in 2022, a 50.1% jump. For the more tempered helicopter market, Airbus expects in-service fleet growth of 16.1%, to 30,568 rotorcraft in 2042 from 26,331 in 2022.

Recent workforce forecasts by CAE and Oliver Wyman reflect those numbers. Last June, CAE projected the world will need 284,000 new pilots of all types through 2031—204,000 to replace retirees and 80,000 for growth. Oliver Wyman's October 2023 analysis, which focused on the North American supply, offered good news. In July 2022, the company forecast a shortage of 30,000 pilots by 2032 (part of an 80,000-pilot gap worldwide). But it now expects the 2032 shortage to be 17,000.

That outlook improved, Oliver Wyman says, because of airlines' responses to the shortage, which more than doubled to 17,000 last year from 8,000 in 2022. Airlines trained more pilots, raised pay, and enticed more existing aviators up the



HEAR
how Becker Helicopters prepares its students for an aviation career

food chain from regional airlines, business aviation units, and helicopter operators.

One big driver of the shortage is the wave of older pilots retiring, which pandemic-provoked employee buyout offers and deteriorating work conditions accelerated. Helicopter pilots generally don't face a mandatory retirement age (Civic Helicopters founder and CEO Chin Tu turned 75 last year and flies several days a week as assistant chief flight instructor for the company), but retirement considerations nonetheless hover over helicopter pilots' career decisions. And the airlines have lured helicopter pilots with higher flight crew pay, signing bonuses, and other attractive benefits.

Civic Helicopters recently trained Dohee Mun (left, with Candise Tu), who planned afterward to work as South Korea's first female helicopter CFI. (Civic Helicopters Photo)



Teaming Up to Aid Students

The promise of quick entry into an aviation career is one element driving helicopter flight training demand. Other factors include the worldwide growth of air ambulance services, aerial firefighting, and remote tourism and the growing need for greater border-control capabilities.

In the United States, however, tight financing and

applicant backlogs have stifled domestic demand, forcing financially assisted students such as GI Bill recipients to wait for training slots.

"One of the biggest hurdles right now for domestic students" is the difficulty in financing training, says Hillsboro Heli Academy's Jared Friend. There are options. But, says Candise Tu, "Most of what we're encountering is people paying out of pocket themselves."

These are among the reasons flight schools pursue international students.

Based at Carlsbad's McClellan-Palomar Airport (KCRQ), Civic Helicopters has been training students since Chin Tu bought a flight school there in 1986. Civic is an FAA Part 145 repair station, a Robinson and Schweizer dealer and service center, and a Part 135 operator of aerial photography, local transportation, and tour flights. "The vast majority of our business, however, is flight training" under Civic's Part 141 flight school certificate, Candise Tu says.

Civic has a fleet of five Robinson R22 Beta IIs, two R44 Raven IIs, two R44 Cadet "glass" IFR trainers, two Schweizer 300Cs, a Bell 206B-3, a Bell 505, and an FAA-approved FLYIT helicopter simulator. Over 37-plus years, the company has trained local students; pilots from local, state, and federal agencies; and a variety of international students.

International students make up a third of Civic's business, with the focus on a contract with South Korea's Hanseo University. Under the agreement, Civic trains that nation's prospective military helicopter pilots.

"The Korean contract is pretty substantial," Candise Tu notes. "We're doing anywhere from 25 to 30 students a year."

International training became a concern for Hillsboro Heli Academy toward the end of the last decade. The company had been training international students almost since its founding in 1980.

Part of Hillsboro Aero Academy based just outside Portland, Oregon, Hillsboro Heli Academy has trained students from more than 55 countries on its fleet of Robinson R22s and R44s. "Our goal has always been to set up our graduates for their future," Friend says. "We're not really in the business of 'get 'em in, get 'em out' and wish them luck on their way."

But the school began to hear from alumni who had trouble getting approved to fly upon their return to Europe after building flight time and experience through US jobs. "Every single one going home to Europe had to try to figure out themselves how to get their licenses converted," Friend recalls. "What school do they go to when they get back [home]? Who do they talk to?"

Friend and his colleagues flew to meet with European companies about how to help. One was RotorSky, whose



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operations include a training academy near Linz, Austria. Its 30 aircraft include Airbus BK 117s, H120s, and H125s; Bell 206s; Leonardo AW139s and AW169s; and Sikorsky (Schweizer) S300s and S-76Bs.

They asked RotorSky founder and CEO Christian Gruber if the companies could partner to help returning students with a plan for converting their certificates and entering the European industry. Gruber said they should team up to train European students in Oregon under RotorSky's EASA Approved Training Organization certificate so they could satisfy most FAA and EASA requirements. They did just that, jointly developing FAA-EASA training and launching the approved program in late 2020. Hillsboro Heli Academy says its combined syllabus can shorten a student's training timeline, and reduce costs by more than 50% per flight hour.

Hillsboro has other initiatives to smooth international students' entry into non-US operations too. Its Career Pathway Program has established agreements with German nonprofit air rescue operator ADAC Luftrettung and North Sea offshore operator Bristow Norway. Under the agreements, both operators use combined EASA and FAA training syllabuses

to fulfill requirements for certificates issued by each regulator ranging from private pilot to airline transport pilot.

As part of the operators' participation in the Career Pathway Program, Bristow and ADAC require students to pass an aptitude test. Bristow requires students to do so before they're admitted to the program. Each operator offers the accepted student access to one of its pilots as a mentor throughout the program. Students who complete the program and pass the aptitude test are also guaranteed job interviews and preferential hiring.

"That's a really neat thing for these students," Friend says, "to have this finish line and mentorship along the way."

The Career Pathway Program agreements with Bristow and ADAC also allow students to obtain an F-1 visa that grants them access after training to work in the United States for up to 23.5 months as a CFI or a commercial helicopter pilot. After that work, students may return home with up to 1,500 flight hours.

Hillsboro Heli Academy has also recently added aerial firefighting, air ambulance, and search-and-rescue operator Avincis Spain (formerly Babcock) to the Career Pathway Program. The Avincis program is in its infancy, Friend says.

A substantial amount of Civic Helicopters' flight training business involves instructing prospective helicopter pilots, like the group shown here with Chin Tu (in blue jacket) and Candise Tu (in puffer jacket), for South Korea's military services. (Civic Helicopters Photo)





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Adaptation Breeds Sustained Success

Becker Helicopters, which is considered to be the largest flight school in the Southern Hemisphere, is well-versed in the vagaries of operating a helicopter training business at an international level.


Mike and Jan Becker launched the flight school in 1996 with the goal of making it an international destination for rotary-wing flight training. Six years later—after epidemics, terrorist attacks, and Middle East war squelched global interest in air travel—the couple retooled to focus on flight training for Australian allies’ military and paramilitary services and law enforcement/public safety providers. That led them to focus on technology, incorporating night-vision goggles and IFR capabilities in their helicopters and eventually developing their own flight simulators. Glass cockpits and turbine aircraft became standard in their operations.

Becker Helicopters maintains a civil training program, too, offering initial to advanced rotorcraft instruction, including multi-engine transitions and aircrew and multicrew cooperation.

The company’s business plan included drawing most of their students from outside Australia to reduce their reliance

on a single nation’s economic health. That forced the Beckers to deal with individual countries’ changing visa criteria and the associated interactions with immigration and education departments. They’ve also had to confront the complications of converting pilot licenses amid changing rules and regulations, as well as attitudes toward the legitimacy and recognition of different countries’ licenses.

COVID-19 prompted another business-plan retooling: the company now draws more on contract pilots and maintenance technicians, uses a smaller Bell 206B-3 fleet, and trains corporate clients within their home countries (due to Australian entry and exit restrictions).

Becker Helicopters has succeeded in building its international business despite the regulatory and red-tape quirks. “This question has to be asked,” Mike Becker says: If every International Civil Aviation Organization–compliant country trains to an ICAO standard, “why are the licenses not recognized in each of these countries without unnecessary conversion? For me, this is the crux of international training. Not individual companies in individual countries advertising and offering a product, but the ability to actually train legitimately.” 

Hillsboro Heli Academy has partnered with European operators on training and mentorship programs to ease the transition of students from flight school to industry jobs in that region. (Hillsboro Heli Academy Photo)



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When My Tail Boom Left the Aircraft

How character, training, and life experiences helped me save six lives.

By Tim Hunter with Christine Knauer

PHOTOS BY ANDREW RICHARD HARA / PARADISE HELICOPTERS



OUT OF NOWHERE, I HEARD THIS whoosh—almost like a change in pressure. There were no warning lights or indications. Through the Bell 407's windscreen, I could see we were spinning faster and faster. I saw the blue of the ocean, then the red and brown of the lava field. We were spinning so fast I was being pushed forward.

In those first moments, the normal world vanished. Time seemed to compress, as if everything was happening all at once. I squeezed my transmit button and made one Mayday call and then another. In between, I switched to the intercom to tell my passengers to brace themselves. I remember them screaming.

I leaned hard on the controls trying to get the helicopter straight and level. Training tells us that an uncontrollable yaw to the right could indicate a loss of the drivetrain or tail-rotor components.

I rolled the throttle into idle, hoping to remove torque

and arrest the yaw. Instead of continuing to flip and spin over and over, we started to slow down, helping to reduce the impact. Thankfully, my brain and muscles have retained the emergency procedures along with training and experience from more than 12 years and over 8,000 hours of commercial flying.

The front-seat passenger and I felt the first direct impact with the shell crumpling as designed, helping to protect us and the four passengers in the rear. Then the 407 came down on its skid with a thud, slid off, and fell onto its left side.

The next thing I recall was feeling panicked and yelling, "Is everybody out? Are we on fire? Get the fire extinguisher." The passengers told investigators that I kept saying that over and over. We still had so much fuel on board. With a hot turbine engine that could catch something on fire, it was still a deadly situation. Fortunately, sometime after the fuselage came to rest, I had closed the fuel valve. The 407's fuel tanks held strong and didn't burst or leak fuel.



Tim Hunter (above, left, and opposite) flies with former Paradise Helicopters chief pilot Travis French in one of the operator's Bell 407s.

On the Jagged Edge

I've flown all across the Hawaiian Islands over the years—about 10 years in total. I started flying in Hawaii again with Paradise Helicopters in Kona on May 15, 2022. The accident happened three and a half weeks later, on Jun. 8. I wasn't on the schedule to fly, but a friend had asked if I could cover for him.

The last of my four flights that day was a sunset flight, where passengers "ooh and aah" over volcanoes, valleys, and waterfalls. Typically, we depart Kona International Airport (PHKO) about two and a half hours before sunset and, if the weather and timing are right, we end up back in Kona on the west side of the island where the sun sets over the bay. It's quite picturesque.

It was an easy day to fly. The weather was clear with light winds. Two groups were on that flight—a brother and sister who had rescheduled from earlier in the week because of weather and a father with his twin daughters, who had just turned 18.

About 20 minutes in, we were flying over a very remote, uneven part of the island that's covered for miles with reddish 'a'a lava flows. That's where we crash-landed. Getting out of the aircraft to a safe distance away was a hurdle because the lava is sharp and virtually impossible to walk on.



After everyone was out safely, the brother used a rotor-blade tiedown to create a sling for my broken arm. I'm 6 ft. 5, 220 lb. It took the two guys to help me get away from the helicopter. While we waited for a rescue chopper, Paradise Helicopters followed its emergency protocols and circled overhead.

The Fallout

In an interview with investigators, one of the

passengers said they saw something fly off the machine as it was spinning. Turns out, it was the tail boom! It had separated from the fuselage midair, and they found it more than 700 ft. away, mostly intact.

In its [final report](#), the NTSB concluded that the tail boom likely fell off the aircraft because of abnormal loading and fracture of an attachment bolt due to a gap between the upper-left longeron and the aft fuselage bulkhead.

Following the issuance of the report, NTSB Board Member Michael Graham commented on my terrifying ordeal. "Hearing Tim recount his harrowing story is remarkable. I am thankful Tim and all five passengers survived this terrible accident. No pilot should ever have to experience a violent in-flight separation of a tail boom," Graham said. "To prevent this accident from occurring again, the NTSB has issued recommendations to both the FAA and Transport Canada."

After the accident, I remember being put into the rescue helicopter. I could see the pilot—a friend of mine—crying before he flew me to the waiting ambulance. I spent most of the transport time in excruciating pain.

I woke up in the hospital's intensive care unit (ICU). I remember asking the doctors and staff about the passengers. Instead of answering my question, they told me only about my injuries—a broken back, a shattered

Increasing Your Odds

How to improve the likelihood of surviving an accident.

- Practice emergency maneuvers so you're ready—and do this on a regular basis so those skills are fresh
- Beef up your skills in simulator training—it's a good place to practice emergency maneuvers too dangerous to do in an actual aircraft
- Encourage others to brush up on their emergency procedures too, especially if you will be relying on them for assistance during the actual event
- Ask for help when you need it—it's important to work through anything that is holding you back from becoming proficient in emergency procedures.
- And most importantly: **If an incident does happen, don't stop flying the aircraft.** Don't give up—continue to aviate, navigate, and communicate, in that order. Tim Hunter's actions during this accident—which lessened the severity of the impact, reduced the likelihood of fire, and saved lives—demonstrate how a crew's actions up to the moment of impact and beyond can make a difference in the outcome.

sacrum, 13 broken ribs, a black eye, and a spiral fracture in my right humerus with four cracks that ran from my shoulder to my elbow, along with many other injuries. On top of it all, I had to be in quarantine with no visitors for several days because one of the passengers tested positive for COVID-19.

I spent more than two weeks in the ICU. It took six weeks for me to be able to sit up for even a moment. Overall, I remained in the hospital for a month and spent another month in rehab. A year and a half later, I'm still in pain. I go to physical therapy, occupational therapy, and other routine procedures and appointments. Because of the accident, I've undergone four surgeries. The accident has devastated my income. I'm still mired in quicksand with lawyers and workers' comp officials, and dealing with paperwork from insurance providers.

Living and Working with Danger

I've lived with risk most of my life. After high school, I traveled the world serving my country as a US Marine. My first commercial gig was on an S-61 helicopter for aerial firefighting that left me up all night choking on smoke and pollen. I've flown patrols 3 ft. off power lines that spiderweb

at different heights across the West Coast's hills and valleys. I've lifted air-conditioning units onto buildings; helped set radio and cell towers; and logged trees in the Pacific Northwest, yanking and banking until I experienced motion sickness.

I like to fly helicopters, drive tractors, and work with heavy equipment. I enjoy dirt bikes, four-wheelers, ATVs, side-by-sides, and snowmobiles. I love to surf and snowboard. All these things come with risk.

What we do with helicopters isn't easy, especially in the utility world. We're in the red "dead man's" zone often. You succeed by learning to trust your instincts and training and by building your character.

Managing Risk Responsibly

Life is like surfing. Sometimes you paddle in late and don't catch the wave, or you go a bit too fast, catch an edge, and wipe out. Still, you just keep going because you know what a great feeling it is to catch a good wave. As we rack up the hours, we can start to think we're invincible.

I'd like to share some advice: As an industry, we've become lax. We need to take our fundamentals seriously—everything from flying square traffic patterns to frequently practicing

Tim (center) poses with Paradise Helicopters owner Cal Dorn (left) and former chief pilot Travis French.



Grounded?

14 Ways to Stay in Aviation

Your skills and experience in vertical aviation are valuable.

When you're grounded, transitioning to a new career isn't easy, but you do have options. Your skills and knowledge are valuable to the industry in other ways. Some avenues to explore:

- Accident investigator
- FAA/civil aviation authority inspector
- Air traffic controller
- Aeronautical engineer
- Airport manager
- Helicopter base manager
- Flight department manager
- Helicopter sim/ground instructor
- Aerial firefighting ops coordinator
- Helicopter search-and-rescue technician
- A&P maintenance technician
- Avionics technician
- Aerospace supply-chain manager
- Aviation sales rep.

Visit rotor.org/aviation-jobs for current opportunities. If you want to help, VAI recently created a Workforce Development Working Group designed to address pilot and maintenance technician shortages by developing strategies and tools for recruiting and retaining talent. To participate in the working group, apply at rotor.org/workforce-development-working-group. For more on VAI's workforce development activities, see "Building the Vertical Aviation Workforce of Tomorrow," p. 52.



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autorotations. Solid training makes up the foundation for operating machines safely, whether it's a helicopter, an airplane, a boat, or anything else. Training instills the knowledge and confidence to react quickly and decisively.

Since you can't always see things as they are, make sure you have someone in your wheelhouse—a trusted friend or coworker—who can tell you, "It's time you brush up on this." You can do the same for them. Make it fun and constructive.

Get out and practice autorotations and IFR approaches. Speak up if you're not feeling well. Stop and reach out to coworkers or your chief pilot and say, "I need help." We must be willing to speak up.

These days, everyone is asked to do more with less time and usually with fewer resources. Take your time, pay more attention. Whether you're a pilot or an aircraft mechanic, it's in our human nature to make mistakes. We're not perfect, but we have to work together. You have to be able to step up and say, "Hey, I know I could have messed up. Can you double-check my work?"

I encourage you to be confident. Don't give up. Oftentimes, we are our own biggest hurdle. Never surrender to an emergency. Don't stop flying the aircraft. I've read accident reports where pilots froze up or took their hands off the controls and told everyone they're sorry. I'm surprised to hear how many casualties are presumed to have been caused by the flight crew just giving up.

On the day of the Bell 407 accident, I reverted to my training. We're alive because of it—and probably thanks to five other miracles.

Looking Forward to What's Next

I've gone through some dark moments since the accident. Thankfully, my girlfriend, Katlyn, as well as my son, Tim, have been by my side. People I haven't spoken to in 20 years have called me. There's been an outpouring of kindness from the aviation community. Last summer, Katlyn and I adopted a rescue dog, Atlas, as a service animal for me, and we're excited to be expecting a baby in June.

I don't know if I'll be able to fly again, but I have to try. I'm taking my time, to make sure that I'm OK to get back out there. I owe it to myself, Katlyn, my family, and the industry to make sure that I'm 100% physically and mentally. I need to know I can handle whatever happens. In the meantime, I'm open to other opportunities.

What I do know: when I'm pilot-in-command, I'm responsible for safety—on board and outside the machine. We all did our jobs that day—Paradise Helicopters, the passengers, rescue crews, doctors, and medical staff. I'm here to tell my story because of it.

Maybe, someday, if I'm as lucky as I was that Wednesday in June 2022, I'll be back surfing and snowboarding, mountain biking and hiking, and flying people over this gorgeous Hawaiian island I call home. 🌺

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Building

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Together, we must act to solve the shortage of pilots and maintenance technicians.

By Greg Brown and Allison McKay

AS THE RECOVERY CONTINUES FROM THE pandemic that began in 2020, the aviation industry is poised for significant growth—but with a shortfall of key aviation workforce professionals, specifically pilots and maintenance technicians. The Boeing [Pilot and Technician Outlook 2023–2042](#) forecasts that 649,000 new pilots and 690,000 new maintenance technicians will be needed to fly and maintain the global commercial fleet over the next 20 years.

The commercial airline industry has responded to the worker shortage by offering significant signing bonuses, salary increases, and renegotiated contracts focused on work–life balance to recruit and retain talent. The vertical flight industry is in competition with the airlines for this scarce talent. In

fact, the airlines have realized the value of rotorcraft pilots and maintenance technicians and have created transition programs specifically to recruit them.

Moreover, the vertical aviation industry is experiencing a wave of retirements as the Baby Boomers and even some Gen Xers age out of the workforce. Therefore, it's vital that we in the vertical flight industry address the worker shortfall and outperform the competition from both legacy and regional airlines for vertical aviation professionals.

Developing Solutions

Historically, a key way to find vertical aviation professionals was to recruit service members leaving the military. But a US Defense Department official recently reported that the US

Army, Navy, and Air Force were collectively experiencing their own shortfall of 41,000 recruits in the fiscal year ending September 2023.

As a leader in the vertical aviation industry, VAI understands the importance of developing solutions to address the talent shortage, which is why the association in October 2022 made workforce development one of its five strategic initiatives, with a vision of establishing a sustainable industry workforce pipeline such as that outlined in the graphic on p. 54.

Ultimately, the association can't mandate changes to how our industry recruits and retains talent. Instead, VAI's role is to bring the industry together to discuss, identify, and promote best practices that can be implemented by operators and maintenance facilities. To gain that industry input, the board also authorized the creation of the VAI Workforce Development Working Group to provide their perspective on actions the industry can take to address the shortage.

If you're interested in joining the Workforce Development Working Group or you're looking for ways to better recruit staff for your organization, please see "Call to Action," on p. 53, for information on how you can be part of the workforce development solution.

Building a Path into Vertical Aviation

One factor making recruiting difficult is a lack of awareness among the public about vertical aviation careers and the absence of a clear path to employment. VAI has developed several initiatives to help.

In 2019, the association worked closely with the state of Utah to create the Utah Rotor Pathway Program (URPP). This was the first education program in the nation bringing together educators, rotorcraft professionals, and state government officials to prepare high school students for science, technology, engineering, and math (STEM) careers in rotary-wing aviation. In the URPP, students earn college credits and learn skills specific to vertical aviation while participating in technical classes and hands-on learning at the secondary-school level. The students are also connected to universities that offer paths to professional licensing.

The URPP program also connects rotorcraft industry professionals with high schools, flight schools, and universities to offer benefits such as mentoring, internships, and job interviews upon students' completion of their rotary-wing programs.

Building on the success of the URPP, VAI has partnered with the University of North Dakota to roll out a Rotor Pathway Program in the state. Mark Schlaefli, owner-operator of Black Hills Aerial Adventures and Yellowstone Helicopters and vice chair of VAI, is participating in the

program as an eager industry partner.

"Part of our stated purpose as operators is to help develop the next generation of technicians and pilots who have an interest in vertical aviation," says Schlaefli. "It is imperative that we as an industry help turn that interest into a passion. I was fortunate to have mentors throughout my journey, and we have a calling to give back and help a new generation of rotary-wing pilots find their place in vertical aviation."

Taking Students to the Show

Other programs to raise awareness about vertical aviation careers occur each year at the association's annual conference and trade show. While this year's show is HAI HELI-EXPO 2024, the show will be renamed VERTICON beginning with the 2025 edition. However, all activities described below as occurring at Expo are also planned to take place at VERTICON.

The Jeff Pino Foundation has partnered with VAI the past two years to coordinate attendance of high school students at the show. One of the organization's missions is to mentor young people who aspire to careers in aviation. The foundation provides scholarships to students interested in aviation, and VAI plans to work with the group on vertical aviation-specific scholarships this year. The Jeff Pino

Call to Action

Simple steps you can take to help increase the industry workforce.

There are several ways you can help drive interest in vertical aviation careers:

- Visit your local high school, flight school, or A&P school to promote the industry and discuss jobs that exist locally.
 - Donate to the [VAI Scholarships program](#), which provides approximately \$30,000 annually in funds for current and aspiring pilots and aviation maintenance technicians. To make a contribution, contact GregB@verticalavi.org.
 - Explore programs such as the US Department of Defense SkillBridge initiative, which offers active-duty service members the opportunity to gain valuable on-the-job work experience during their last 180 days of service.
 - Start a mentorship or apprenticeship program at your company.
 - Consider creating a pathway program in your state. Contact Advocacy@verticalavi.org for more information.
 - Volunteer to be a part of the [VAI Workforce Development Working Group](#) and help develop solutions for the industry.
- For more information on ways to get involved, please contact Education@verticalavi.org.

Foundation and VAI will welcome to HAI HELI-EXPO 2024 students from Los Angeles, California–area institutions Canyon High School and Corona High School as well as the Bonita Unified School District. Members of the VAI Workforce Development Working Group will guide the students around

the show floor to meet manufacturers and suppliers and learn about vertical aviation’s many distinct missions. In addition, students will visit exhibits from universities, flight schools, and A&P schools and become familiar with the many training programs available in the industry.

Framework for Strategic Workforce Transformation

The VAI Workforce Development Working Group has developed a strategic action plan to build a sustainable workforce pipeline across all professions in our industry. The plan will address the needs of the pipeline’s full life cycle—from high school to those certificated and ready to enter the workforce.

VAI will work with our industry partners to create and/or expand existing programs, such as:

- Industry mentorships
- Pathway programs
- Scholarships
- International partnerships
- Internships/apprenticeships
- Equipment resources for schools
- High school outreach.


The annual VAI Helicopter Industry Career Fair enables those interested in vertical aviation to meet with human resources professionals from various industry companies and organizations to learn about careers and job opportunities in the field. The free event is also a great way for students to learn how to network and get in front of hiring officials.

VAI’s annual Mil2Civ Workshop provides military pilots and maintainers valuable information about how to make the transition to the civil helicopter industry. Veterans who have recently made the switch themselves offer tips on how to best position oneself for a civilian career after having served in the military, including writing an effective aviation resume and preparing for the interview.

Recruiting Industry Partners

Addressing the workforce shortage is an industry-wide issue, and to help address it VAI is committed to raising public awareness about the vertical aviation industry, its unique segments, and the paths to entry.

An essential part of that commitment entails highlighting other organizations aligned with this mission, such as the Civil Air Patrol (CAP), an auxiliary of the US Air Force, and the Aircraft Owners and Pilots Association (AOPA) Foundation. The CAP has created a rotary education camp to train cadets in the basics of rotary flight, manufacturing, and maintenance.

The AOPA Foundation, meanwhile, runs the You Can Fly high school aviation STEM curriculum, which is available in 46 US states and Washington, D.C., with more than 71,000 students served so far. The STEM curriculum features career pathways for pilots, both on board and remote. Students in the program learn the principles necessary to pass FAA knowledge tests. 





SALUTE TO EXCELLENCE

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Every year, through its Salute to Excellence Awards, HAI recognizes a number of these outstanding members of the vertical flight community for going above and beyond in their work. Whether in a single instance or throughout a career, these pilots, maintenance technicians, flight instructors, safety professionals, operators, and industry leaders from around the globe remind us to always aim for excellence.

On the following pages, HAI recognizes our 2024 honorees for their remarkable achievements across the rotorcraft industry. We congratulate them and celebrate their extraordinary contributions to aviation and the example they set for the entire vertical flight community.

Nominations for the 2025 Salute to Excellence Awards, to be celebrated at VERTICON 2025 in Dallas, will be accepted beginning in June 2024. Visit rotor.org/salute for more information.

MATTHEW S. ZUCCARO LAND & LIVE AWARD

For outstanding aeronautical decision-making, crew resource management, and/or coordinated actions

Capt. Steve Buhagiar and David Sidorski

Pilots, Bristow Group, Houston, Texas, USA

On the afternoon of Sep. 24, 2022, Steve Buhagiar and David Sidorski were flying four passengers in a Bristow Group Leonardo AW139 to Houma, Louisiana, from an offshore oil platform. When the flight was about seven minutes from the airport, the crew heard a loud “whoof” sound and saw thick smoke coming from the overhead circuit-breaker panel. Smoke immediately filled the cockpit as the low-rotor rpm warning alarm sounded, both engines began racing, and the aircraft started a rapid climb.



Capt. Steve Buhagiar (left) and David Sidorski

Buhagiar, the pilot-in-command for the flight, fully lowered the collective as he fought to bring rpm back and maintain aircraft control. Meanwhile, Sidorski snapped the left-side door window in two and pulled half of it in and behind the seat, clearing smoke from the cabin. Buhagiar lowered the landing gear as a precaution. The engines were at 140% torque as rotor rpm slowly returned to 100%. Even with collective full down and nose level, the aircraft was in a 1,700 ft.-per-minute climb.

“We’d climbed from 3,500 to almost 7,000 ft. in the span of a few minutes,” Buhagiar recalls. “I didn’t know how much more the aircraft could

take. We needed to reduce power. I asked David to bring engine one down to idle to see if that helped.”

As Sidorski brought engine one to idle, the rpm immediately deteriorated to 80%. He rapidly brought it back, and rpm slowly returned. During the maneuver, however, they had descended 1,000 ft. With seemingly no other option, Buhagiar tried nosing the aircraft forward to lose altitude. The aircraft sped up to more than 186 kt., well above its maximum speed, as Buhagiar flew in a large, gradual spiral to descend.

Once lined up for the runway, the crew decided to bring engine two to idle and attempt an autorotation. The rotor rpm immediately dropped to 67% before resuming full engine power. Now knowing the aircraft could still fly at 67% rpm, Buhagiar and Sidorski elected to descend by exchanging rpm for altitude, repeatedly throttling back the engines and immediately powering back up. The helicopter touched down at what Buhagiar believes was about 60 kt. Both main landing gear collapsed while the aircraft skidded 800 ft. on the runway.

Buhagiar and Sidorski were successful in safely landing the aircraft with only one minor injury. Later, the US National Transportation Safety Board determined the incident was caused by incorrectly routed wiring that chaffed, caught fire, and caused the upper carbon-fiber collective torque tube to melt and rotate, leaving the rotor blades in a full pitch position even when the collective was down.

“There were so many times we could have died,” Sidorski recalls, “but neither of us locked up. There’s nothing in the manual that tells you what to do in this situation. We worked together to test options, not making any sudden actions. We knew we were done if we did nothing, so we did what we could while the aircraft was still flying to get us down safely.”

“It was such an intense experience, the entire event. There were so many times we could have died, but neither of us locked up. We kept flying the aircraft.”

—David Sidorski

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COMMUNICATIONS AWARD

For creative distinction in disseminating information about the vertical aviation industry

Bryan Matuskey

Production Team Leader/Videographer, Rotor Pro magazine, Prescott, Arizona, USA

Bryan Matuskey grew up in a creative household. His mother was a photographer who regularly took photos and planned and filmed skits for her kids. Later, Matuskey's older brother taught him about video editing, lighting, and art interpretation.

In high school, Matuskey made a video that so impressed school administrators that they hired him to create a promotional video for them. He also filmed local sports, all while considering his video work to be just a fun hobby. Then, word got out about his skills and people kept recommending him for new projects. It wasn't long before Matuskey realized he could develop his hobby into a career.



Bryan Matuskey

Matuskey formed his own business in 2006, working on a variety of projects that included his own cable television show, interdisciplinary art films at Arizona State University and Colorado's Sangre de Cristo Arts Center, and religious icon videos for an Episcopal diocese.

Matuskey's dad loved aviation and often took his children to the airport on weekends to have breakfast and watch aircraft. That exposure to aviation early in his life made it natural for Matuskey to say yes when helicopter flight training company Guidance Aviation called requesting a promotional video. That first assignment for Guidance Aviation led to training videos, followed by an offer of full-time work. While at Guidance, Matuskey created an online training school for working with uncrewed aerial systems and developed a maneuvers guide app for Robinson helicopters on the Apple iOS and Android mobile operating systems.

It was in the Guidance booth at HAI HELI-EXPO 2013 where Matuskey met *Rotor Pro* magazine Editor-in-Chief Lyn Burks. Burks initially hired Matuskey to make a few videos and eventually offered him a position to assemble the entire bimonthly magazine in addition to creating videos to accompany each issue.

"Bryan's true gift to the industry lies in his ability to transcend traditional magazine articles," writes Burks in his nomination letter for Matuskey. "He crafts video narratives that take viewers on immersive journeys, allowing them to perceive the intricacies of vertical lift operations from unique and uplifting perspectives. He has enabled countless operators to share their stories with the wider vertical lift community."

Today, Matuskey designs six English-language and two Spanish-language editions of *Rotor Pro* each year, having helped publish more than 6,000 pages since he started. He has produced more than 130 helicopter industry-specific videos with nearly 2 million total online views, as well as 80-plus educational, training, and safety-related videos for various vertical flight organizations around the world. After a decade with *Rotor Pro*, what stands out most to Matuskey is how his work shines a positive light on all facets of the industry.

"The projects I'm most proud of are those that show the unique ways helicopters save, serve, and protect people around the world," Matuskey shares. "For instance, a video I did on helicopter emergency medical services operations was instrumental in [helping] foreign governments adopt [such] operations. And a documentary I worked on successfully advocated for the continuation of the National Guard's Apache AH-64 helicopter program. It's very gratifying to learn that the videos I make have a positive impact, and I'm honored to be a part of telling the industry's story."

"The projects I'm most proud of are those that show the unique ways helicopters save, serve, and protect people around the world."



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HUMANITARIAN SERVICE AWARD

For outstanding service in using rotorcraft to provide aid to those in need

Rainbow Helicopters

Honolulu, Hawaii, USA

On Aug. 9, 2023, employees of Honolulu, Hawaii–based Rainbow Helicopters woke to devastating news: a fire had destroyed the town of Lahaina, Maui. They had an immediate, overwhelming desire to do something, anything, to help their greater Maui *ohana*—their Hawaiian family.



The Rainbow Helicopters team

weighed loads, operations managers oversaw loading, and pilots made the flight plan. On Aug. 11, the helicopter flew its first relief flight, landing at Kapalua Airport (PHJH), as close to Lahaina as it could safely land.

Ground-tour company volunteers met the helicopter with vans to deliver the supplies. The helicopter then flew to Maui's Kahului Airport (PHOG) to pick up and transport supplies that couldn't get to Lahaina by ground. During the flights, the team saw firsthand Lahaina's complete destruction. When they returned to Oahu, their reports inspired further action.

A GoFundMe account the company set up hoping to raise \$1,000 received over \$76,000, 100% of which bought needed supplies. Rainbow Helicopters also established a base to accept physical donations. Over the next weeks, the entire team donated hundreds of off-time hours to purchase, receive, and catalog supplies; package and weigh loads; load helicopters; and fly 13 relief missions to Maui.

"It took on a life of its own, and I was overwhelmed with pride in our team, our community, and those making donations," Battjes says. "It was really incredible to see people making this effort, and it was a feeling of hope during such a tragic time."

In those first weeks post-fire, Rainbow Helicopters delivered over 5,500 lb. of supplies, including more than 19 gal. of breast milk. Castle & Cooke Aviation donated all the jet fuel. Rainbow covered the avgas and aircraft for all the flights.

Rainbow Helicopters partnered with several nonprofits, including a milk bank in Oregon and two local organizations that helped distribute supplies.

Efforts continued into the holiday season, with the company providing food, gifts, and necessities to families in need and an aircraft to fly Santa Claus to Maui.

That day, the team used its wide-ranging network to ask what people needed. They soon got a clear message: mothers and babies needed immediate assistance.

Having given birth just six weeks earlier, Rainbow Helicopters owner and director of operations Nicole Battjes dove into action. She sent her father-in-law and a team member to buy formula, diapers, wipes, and other supplies, as much as could fit in an Airbus AS350 helicopter. As the two were buying over \$4,000 worth of supplies, news spread among the rest of the team. People stayed past their shifts and others returned, all wanting to help. Mechanics ensured the helicopter was ready to fly, ground crew

"It was really incredible to see people making this effort, and it was a feeling of hope during such a tragic time."

– Nicole Battjes, owner and director of operations, Rainbow Helicopters

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W.A. "DUB" BLESSING FLIGHT INSTRUCTOR OF THE YEAR AWARD

For upholding high standards of excellence in flight instruction

Catherine Press

CEO, Chinook Helicopters, Abbotsford, British Columbia, Canada

Chinook Helicopters CEO Catherine Press is a pioneer, not only in flight instruction but also in the Canadian helicopter industry. She began flying her dad's floatplane at 11 years of age and soloed her first airplane at 16. When her father bought a Bell 47 to start Chinook Helicopters in 1983, Press learned to fly that aircraft as well; and on her 17th birthday, she earned private airplane and helicopter licenses. At the time, she was one of only six female helicopter pilots in Canada.

Press gained business and customer service experience at Chinook Helicopters. After earning commercial airplane and helicopter licenses, she also began flying for the family business. At 21, she got her airplane flight instructor rating, and at 27, she earned her helicopter flight instructor rating, becoming Canada's first female helicopter flight instructor.

"Toward the end of my flight instructor flight test, I asked the examiner how many female flight instructors there were in Canada," Press recalls. "He said 'one' and I asked who she was. He said, 'It's you! Congratulations!'"

Press taught up to 1,200 hours a year helping build Chinook Helicopters into one of Canada's largest flight schools. She studied for and earned her ratings from the FAA, the Civil Aviation Administration of China, and the European Union Aviation Safety Agency (EASA). She most recently acquired the ability to teach in Canada for EASA certification.

Press is currently the only person in Canada holding Transport Canada pilot examiner status in both airplanes and helicopters. She has received Canada's David Charles Abramson Memorial Flight Instructor Safety Award and holds

an honorary doctorate of technology.

"Cathy's willingness to support individuals to reach their potential is quite admirable," wrote Chinook Helicopters Chief Pilot Bill Snedden in his nomination of Press. "She exudes positivity and maintains connectivity with the Canadian aviation industry and regulatory bodies. Cathy drives the aviation industry forward with her incredible leadership. The impact she has had on the pilots she has trained, employed, and networked with has been life-changing for them."

Press has built Chinook Helicopters into a 16-helicopter, 14-airplane flight training academy. She also put together a team that received Transport Canada approval to build four in-house flight training devices, saving the company tens of thousands of dollars.

Press also gives back. She is currently vice chair of the Helicopter Association of Canada and chair of its Flight Training Committee and a board member of the British Columbia Aviation Council. She serves on the Aviation Advisory Committee of British Columbia's Institute of Technology and remains deeply involved in student mentorship programs.

"I always wanted to be a teacher, and I was surrounded by aviation, so becoming a flight instructor was the perfect combination of my two passions," she says. "I've stayed with the training because I really do enjoy people. I enjoy seeing and being a part of their successes."



Catherine Press

"I always wanted to be a teacher, and I was surrounded by aviation, so becoming a flight instructor was the perfect combination of my two passions."

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LAW ENFORCEMENT AWARD

For contributions to the promotion and advancement of rotorcraft in support of law enforcement activities

Andrew Edgerton

Chief Pilot, Fairfax County Police Helicopter Division, Fairfax, Virginia, USA

Andrew Edgerton fell in love with aviation at an early age, spending hours flying airplanes with his dad. He hoped to be a naval aviator, but he learned in high school that he had less than perfect eyesight. He continued to fly nonetheless, earning his single-engine land and sea airplane ratings in his early 20s before switching to helicopters.



Andrew Edgerton

Working at a desk job in telecommunications, Edgerton built his helicopter ratings to include commercial, instrument, flight instructor, and instrument instructor ratings. He began teaching flight instruction in helicopters in 2006, on weekends and evenings, until he landed a full-time news helicopter job.

In 2010, Edgerton joined Virginia's Fairfax County Police Helicopter Division as a civilian line pilot flying the agency's Bell 407. He was a part of the unit in 2011 when it became the first US law enforcement agency and air ambulance service to use Bell 429s.

"I love the flying we do, as no two days are the same, especially because of the dual services we provide the community," Edgerton says. "When the chief pilot position opened, I saw an opportunity to put my old business career skills to work to help strengthen the division."

Edgerton had his work cut out for him. When he took the position in 2021, the helicopter division was based at Manassas Regional Airport (KHEF) in Manassas, Virginia, where it had been since July 2020, while its heliport in Fairfax was being rebuilt. He was responsible not only for running the helicopter division from a temporary facility, but also for overseeing the complex heliport design

and construction process—and then facilitating the unit's successful relocation to the structure in 2023.

"One of Andrew's most significant accomplishments was leading our team through a challenging transition period, which included the construction of a brand-new heliport, necessitating a three-year relocation to a temporary facility," explained Fairfax County Police Lt. Brian Bowman in his nomination of Edgerton for the award. "His meticulous planning, leadership, and attention to detail ensured that our operations remained safe and uninterrupted throughout the transition. Andrew's resolute work ethic, dedication to our public safety missions, and significant contributions have not only elevated our aviation unit but have also had a profound impact on the safety and well-being of our community."

Before his promotion, Edgerton served seven years as safety officer. In this role, he evaluated and mitigated risks associated with the unit's missions, developed plans to maintain safe operations, and ensured the agency's compliance with all aviation regulations and guidelines.

"I really do believe in and enjoy serving the community," Edgerton says. "I enjoy the administrative work, but I also love to fly. If I can pick up shifts while ensuring the other five pilots can attend to their personal lives, all the better."

"Andrew [has] not only elevated our aviation unit but [has] also had a profound impact on the safety and well-being of our community."

Brian Bowman, Lieutenant, Fairfax County Police Department

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GOLDEN HOUR AWARD

For distinguished and outstanding service utilizing rotorcraft in air medical transport

Children's Health Neonatal/Pediatric Transport Team

Children's Health, Dallas, Texas, USA

The term “golden hour” is traditionally used to identify those critical first 60 minutes after a traumatic injury or onset of symptoms when a patient must receive lifesaving care for the best chance of survival. In neonatal critical care, however, there is another critical window—the “golden six hours.” This phrase refers to the time from a traumatic birth to when an emergency treatment called neonatal therapeutic hypothermia must take place to reduce the chances of further complications, as well as subsequent brain and organ damage.



From left: Alex Cross, Korey Roberts, and Hali Hendry of the transport team

Neonatal therapeutic hypothermia is a therapy specifically for babies who have experienced a lack of oxygen and/or blood flow to the brain and other organs during the mother's labor and delivery. The therapy is administered using a water-filled cooling blanket to lower the baby's body temperature, prolonging the time before further damage can occur.

On a hot summer night in July 2022, a baby was born prematurely with multiple complications at a community hospital in North Texas. With no neonatal intensive care unit (NICU) at the hospital, doctors decided to transport the baby to the Level IV NICU at Children's Health Children's Medical Center Dallas, all of whose ground vehicles and aircraft are equipped to support critical neonatal and pediatric needs.

After receiving the call, the Children's Health Neonatal/Pediatric Transport Team launched the medical center's

Sikorsky S-76C++ from Dallas Love Field (KDAL). Nicknamed Child 1, the aircraft is a dual-pilot IFR helicopter that allows patient transport in poor weather conditions when other services can't fly.

During the 30-minute flight, registered nurse Alex Cross, respiratory therapist Korey Roberts, and paramedic Hali Hendry pre-cooled the equipment while the community hospital team began stabilizing the baby and preparing the infant for transport. The effort of both teams allowed the transport crew to begin the cooling process by 3 am, well within the golden six hours.

“When we arrived [at the community hospital], it was clear the baby was distressed,” Cross shares. “We acted fast to make sure the patient was comfortable, initiated cooling, and transported the patient. Children's Health had their cooling mechanism ready, so as soon as we landed [back in Dallas] we moved the patient over and there was no interruption in this patient's intervention therapy.”

The Neonatal/Pediatric Transport Team's readiness and rapid delivery of cooling therapy was instrumental in helping the premature infant. This intervention has become more common for the hospital, with the team performing it roughly once a month, Cross says. She attributes this care to increased awareness of cooling's ability to help reduce neurological damage after a traumatic birth.

This transport process is an example of the wide variety of responses the Children's Health Neonatal/Pediatric Transport Team performs on any given day, with the team transporting more than 5,000 children a year.

The Neonatal/Pediatric Transport Team's readiness and rapid delivery of cooling therapy was instrumental in helping the premature infant.

Rex Alexander*President, Five-Alpha, Fort Wayne, Indiana, USA*

A veteran vertical aviation professional, Rex Alexander has made significant strides increasing safety in the industry through patience, diplomacy, and perseverance.

Alexander began flying in 1985 as a US Army helicopter pilot. During his 10-year military career, he also served in the Indiana Army National Guard as a pilot, instructor pilot, and standardization instructor pilot. After leaving the military, he flew helicopters for the offshore oil-and-gas industry and then signed on as a helicopter air ambulance pilot with Omniflight Helicopters.

Over the next 20 years, Alexander became a force for safety in the air ambulance industry. He joined the Indiana Association of Air Medical Services and the National EMS Pilots Association (NEMSPA), serving on their boards and as president of both organizations.

“I lost a lot of good friends in military and EMS accidents,” Alexander says. “When you look at the accidents, most were completely preventable. One of the biggest things that pushes me is that pilots are held to a higher standard than anyone else when looking at an accident. After an accident occurs, it’s way too easy to blame pilot error. It requires effort and specialized training to identify and classify the causes of and contributing factors in an accident. I’m driven to identify these causes and contributing factors, educate the industry on why they are threats, and work to eliminate them.”

While in the industry, Alexander began designing heliports and helping hospitals identify safety issues related to heliport standards, building and fire codes, and pilot education. He used this knowledge to advocate increased safety across the industry. In 2006, he worked with NEMSPA colleagues to develop the HEMS Weather Tool. In 2007, he became cochair of the new Infrastructure Working Group (IWG) at the US Helicopter Safety Team (USHST).

In 2013, the IWG and the National Center for Atmospheric Research held a joint industry–government summit to identify roadblocks to launching the tool, which was still in experimental status. The meeting ultimately uncovered a roadmap to bring about FAA-mandated changes, so that the HEMS Weather Tool was established under the National Oceanic and Atmospheric Administration’s Aviation Weather Center.

Alexander and the IWG have since hosted eight successful summits on advancing safety and improving low altitude–aviation infrastructure.

Heliport and vertiport safety remain key passions for Alexander. Today, among other advisory roles, he serves on the National Aeronautics and Space Administration’s Advanced Air Mobility

Ecosystem Working Groups and chairs the National Fire Protection Association’s Helicopter Facilities Technical Committee. He also teaches at the US Department of Transportation’s Transportation Safety Institute.

“What drives Rex every day is knowing system safety is always perishable,” wrote Tom Judge, executive director of LifeFlight of Maine, in his nomination letter. “Every day, our people climb into helicopters and operate in a safer environment due to Rex’s efforts.”



Rex Alexander

“I’m driven to identify the causes and contributing factors [of accidents], educate the industry on why they are threats, and work to eliminate them.”

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MAINTENANCE AWARD

For significant and distinct contributions to helicopter maintenance

Michael Yip

Director of Maintenance, Becker Helicopter Services, Marcoola, Queensland, Australia

Michael “Yippy” Yip’s career began in 1977 when he enrolled as an apprentice to obtain a certificate of aircraft maintenance from Australia’s government-run Technical and Further Education program in Sydney. Since then, he’s built a 40-plus-year career as a licensed aircraft maintenance engineer, A&P mechanic, chief engineer, maintenance controller, head of aircraft maintenance control, and director of maintenance.



Michael Yip

Yip joined Becker Helicopter Services in 2009 and has since developed a reputation industry-wide for his maintenance and management skills and his ability to strengthen teams and increase their safety margins. He has done this while overseeing more than 50 full-time engineers and maintaining a fleet of 20 Bell 206 JetRangers, achieving a remarkable 98% availability rate under Australia’s IFR and night-vision imaging system standards.

One of Yip’s standout accomplishments is his innovative way of strengthening relationships between pilots and engineers. “His programs are designed to cross-train staff and facilitate direct interactions, which has led to a more cohesive, efficient, and safe working environment,” says Becker Cofounder, Chief Pilot, and Executive Director Mike Becker.

To foster a sense of community and open communication among Becker staff, Yip started a monthly pilot maintenance program that culminates in a company barbecue. He’s also organized in-house safety programs that allow his team to take part in industry-wide safety initiatives. For instance, Yip included Becker engineers in night-vision goggles

training to improve maintenance and operational effectiveness. He encourages his staff to contribute to the company’s safety management system program, thereby promoting safety as a collective responsibility.

On the regulatory front, Yip is a voice of reason and an agent for positive change. He has worked closely with local and international regulatory bodies to fine-tune the wording and intent of regulations, ensuring they are both current and operationally practical. The resulting amendments mark him as a true industry influencer.

Yip’s philosophy is to use all he’s learned throughout his career for the betterment of the company and his teams. “An efficient, profitable operation is possible with a well-resourced team,” Yip says. “I advocate for what the people who work for me need and also encourage them to help support everyone else along the way.”

Yip also mentors future aviation professionals. He’s trained 10 apprentices in the past decade. The majority have stayed in the industry. Some have gone on to start their own aviation businesses, attesting to the quality of Yip’s guidance.

In addition to overseeing Becker’s maintenance program, advocating for his team, and mentoring the next generation, Yip is dedicated to family—at home and at work. He invites employees’ families to attend staff celebrations, and awards vouchers for family activities to recognize performance, emphasizing the importance of family and work–life balance.

“[Yippy’s] programs are designed to cross-train staff and facilitate direct interactions, which have led to a more cohesive, efficient, and safe working environment.”

—Mike Becker, Cofounder, Becker Helicopter Services

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PILOT OF THE YEAR AWARD

For outstanding achievement as a helicopter pilot

Michael Sagely

Senior Pilot, Air Operations, Los Angeles County Fire Department, Santa Rosa Valley, California, USA

Michael Sagely, who in 1984 learned to fly helicopters in the US Army, has expressed extraordinary professionalism, leadership, and skill throughout his career.

Sagely's story differs from that of most other former army aviators. He joined the service in his mid-20s after having been a Division I All-American athlete in men's volleyball at San Diego State University and having played on the Olympic team.



Michael Sagely

After enlisting in the military, he was accepted into flight school, aced Warrant Officer Candidate School as a distinguished graduate, and was an honor graduate from primary flight school, flying the UH-60 Black Hawk.

Upon assignment to the army's 82nd Airborne Division, Sagely progressed rapidly and was selected for the instructor pilot course before becoming a CW2. During his 22 years in the army, Sagely served in Operations Desert Shield and Desert Storm and later was accepted into the 160th Special Operations Aviation Regiment (Airborne), where he flew elite special combat missions in multiple aircraft types. During his service, he received seven Air Medals and a Bronze Star for his actions in multiple combat operations and earned a bachelor's degree in professional aeronautics with an aviation safety minor.

Upon retirement from the army, Sagely worked as a contract fire pilot for the Angeles National Forest Rappel/Helitack crew before being hired by the Santa Barbara County (California) Fire Department. In Santa Barbara, he became the first pilot in the unit's history to conduct night-vision goggles (NVG) snorkel operations.

Sagely credits his success during his first three years of aerial firefighting to his army flying experience. Managing multiple radios for air and ground assets, flying in combat situations, using NVG, and performing precision operations transferred well to wildland firefighting.

Sagely joined the Los Angeles County Fire Department (LACFD) in 2009 as a pilot. His leadership skills and aviator talents led to his promotion to senior pilot in less than two years. He has since earned two valor awards from the department and three awards for heroism from Sikorsky for his part in multiple rescues and other lifesaving missions.

Sagely attributes his success as a pilot and leader to significant mentors he has learned from throughout his career. Unsurprisingly, he has become a mentor himself, choosing people to guide who are willing to step outside their comfort zones and grow. Indeed, his leadership and mentorship within the LACFD have helped strengthen the department.

When reflecting upon his career at the LACFD, Sagely says it isn't the awards and heroic missions that define his experience. Rather, his particular passion has been making LACFD Air Operations better.

"In the military, we had a saying: Leave the foxhole better than you found it," Sagely shares. "If I were to highlight one piece of my career, it is my focus on the overall health of the organizations where I work, from adjusting attitudes and approaches to work to creating processes and procedures that help everything run more efficiently and safely."

Since joining the LACFD, Sagely has received two valor awards and three awards for heroism for his part in multiple rescues and other lifesaving missions.

LIFETIME ACHIEVEMENT AWARD

For long and significant service to the international vertical aviation community

Anthony “Tony” Cosimano

Owner, International Aircraft Purchase & Lease, Warwick, New York, USA

Anthony “Tony” Cosimano has enjoyed a long and storied career filled with not only captivating adventures but also key actions that influenced the future of the helicopter industry.

“Tony has traversed over 60 years of industry change, technology, and advancement,” wrote AW139 Capt. Stacy Sheard in her nomination of Cosimano. “He was often the first, or one of the first, to fly commercial helicopters in many places around the world. Tony’s history has propelled the helicopter industry into what we know today.”

It all began in Jamestown, New York, in 1956. Celebrity couple Lucille Ball and Desi Arnaz were in town for the world premiere of *Forever, Darling*. He watched the stars arrive via a Bell 47—his first time seeing a flying helicopter. The wonder of it stayed with him.

Cosimano planned to be a musician. He attended the University of Michigan and then the US Military Academy at West Point, where he played trumpet in the US Military Academy Band.

Joining the academy’s flying club, Cosimano learned to fly airplanes, but helicopters captivated him more. He was one of a few helicopter pilot candidates accepted into the US Army flight school, earning his helicopter wings in 1963. He deployed to Vietnam the next year, flying armed Bell UH-1B helicopters with the Cobra Platoon of the 114th Aviation Company.

He left the army in 1966 after an eventful flying career that included several close calls, returning to New York, where he continued pursuing his passion. Chesapeake & Potomac Airways hired him to fly AT&T telephone lines in a Bell 47.

In 1968, Cosimano cofounded Decair Helicopters with two partners. The company offered utility, flight training, and charter services in the New York City area and beyond. One of Cosimano’s memorable experiences was transporting organizers, performers, and medical teams to the 1969 Woodstock (New York) Music and Art Fair.

That job boosted Decair’s profile, leading to a police contract, out-of-state utility contracts, movie shoots, an oil exploration contract in Peru, and missions supporting multiple rescue operators. At that time, Cosimano also formed the Helicopter Emergency Lift Program to provide helicopter support to local agencies at no cost to the community.

Cosimano sold his Decair shares in 1978 and accepted a management position at Envirogas in Buffalo, New York, to create its helicopter department. He did the same later at Metromedia and AIG. He also chaired a worldwide customer advisory board in the early-development stages of the Leonardo AW139.

After retiring in 2007, Cosimano took a position helping bring AW139 and A109 series helicopters from factory acceptance to completion, sales, and delivery stages. He also started International Aircraft Purchase & Lease to provide consulting and pilot services.

“It’s definitely a passion, and that passion keeps me completely enmeshed,” Cosimano says. “Every day is exciting, and I’m still flying, still very much involved.”



Anthony “Tony” Cosimano

“Tony’s history has propelled the helicopter industry into what we know today.”

—Stacy Sheard, AW139 corporate helicopter captain, Executive Jet Management/Fanatics

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HAROLD SUMMERS LEGACY AWARD

For outstanding contribution and selfless service to the worldwide vertical aviation industry

Zhilin Summers

Widow of Harold Summers

Harold Summers was a part of vertical aviation for over 60 years, entering the industry after earning his airframe and powerplant (A&P) certificate in 1960, then flying helicopters on the Alaska Pipeline. He joined Petroleum Helicopters Inc. (PHI) in 1964 as a mechanic–pilot, eventually rising to the role of VP of maintenance and engineering, in which he oversaw a massive fleet of aircraft globally that included more than 400 helicopters in the Gulf of Mexico alone. One



Harold and Zhilin Summers

and CEO James Viola. “Except when he would disagree with ‘the book.’ Then, he was by-the-book in his efforts to change ‘the book.’ Because of his passion for our industry and his willingness to share his knowledge, our industry is indeed better as the results of his efforts.”

Summers never stopped working until his death in October 2021 at the age of 83. Ten years earlier, he received the prestigious FAA Charles Taylor Master Mechanic Award, recognizing his 50 years of working in aircraft maintenance.

“Our current Salute Awards recognize special achievement by individuals or groups throughout our industry,” says Viola. “This new award recognizes Harold’s passion for the industry, particularly his enduring efforts to make every part of our industry better.”

“VAI received numerous suggestions of methods to honor Harold’s spirit and legacy,” adds Viola. “We considered renaming existing awards in his honor, but nothing felt right. I am grateful to the VAI Technical and Maintenance Working Group—in which Harold participated—which proposed creating this new award to recognize extraordinary efforts to aid and improve our industry.”

In recognition of her unwavering support for her late husband, the inaugural award recipient of the Harold Summers Legacy Award is Zhilin Summers.

significant achievement during his tenure with PHI was the implementation of health usage monitoring systems (HUMSs) in the organization’s fleet. He later served as acting chief engineer for a joint venture between PHI and China Southern Helicopter Co. in Zhuhai, Guangdong, China, where he met his wife, Zhilin.

After 40 years with PHI, in 2004 Summers became director of maintenance at HAI (now VAI). In directing the fly-in and fly-out each year for HAI HELI-EXPO®, he managed the arrival and departure of up to 60 helicopters to be displayed on the show floor. While at HAI, he dedicated the final 17 years of his life to improving the industry, serving as an active, vocal participant in countless HAI working groups, industry working groups, and national and international regulatory committees or working groups. His work took him across the river to Washington, D.C., back to the Gulf of Mexico, and around the world.

“Throughout his career, subordinates, peers, and leaders all recognized Harold’s ‘by-the-book’ work ethic,” says VAI President

“This new award recognizes Harold’s passion for the industry, particularly his enduring efforts to make every part of our industry better.”

—James Viola, VAI president and CEO

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ROTOR

m a g a z i n e

Photo Contest 2024

In the following pages, we recognize the winners of the 2024 ROTOR Magazine Photo Contest. These images will also be displayed at HAI HELI-EXPO 2024 in Anaheim, California, Feb. 26–29 (exhibits open Feb. 27–29).

“This year, we received many stunning photos that reinforce just how unique the vertical aviation industry is and the great work we do,” says Jaasmin Foote, HAI social media manager and photo contest coordinator. “We sincerely thank all of you who participated!”

This year’s contest enjoyed broad international participation, with entries from not only the United States but Antarctica, Canada, the United Kingdom, Italy, Germany, France, South Africa, Australia, Saudi Arabia, and Russia.

To view all of the 2024 Photo Contest entries, as well as the winners of past Photo Contests, visit photo.rotor.org.

The 2025 ROTOR Magazine Photo Contest will open on Aug. 1, 2024, with entries accepted through Dec. 2.



Grand Prize

Nicholas Avis

Yorktown, Virginia, USA

In this photo, taken on Jan. 29, 2023, an MH-60S Seahawk helicopter with Helicopter Sea Combat Squadron 5 delivers cargo to aircraft carrier USS *George H.W. Bush* during a vertical replenishment with oil tanker USNS *Kanawha*. The image was taken during the 2022–23 deployment of USS *George H.W. Bush* in the Mediterranean Sea.

“Our judges appreciated the low angle, textures, and reflections in this image, along with the ‘pops’ of color against the otherwise neutral colors of the sky and flight deck,” says Foote. “Plus, it’s a nice example of a helicopter doing what only a helicopter can do: hover to pick up loads.”





Helicopters/Drones at Work

Raphael Grinevald

Salon-de-Provence, Bouches-du-Rhône, France

On a cold evening, photographer Raphael Grinevald unexpectedly encountered a helicopter in the middle of a rescue on the north face of Mont Ventoux in France.

Taking off from the narrow road that climbs to the summit, the Airbus EC135 kicked up a cloud of snow, lit by the aircraft's landing lights. "Our judges noted that it is typically very difficult to get clear, sharp photographs in conditions like these," says Foote. "There is low light, and the aircraft is being whipped by the snow raised by the rotorwash."

Adds Grinevald, "Looking more carefully at the image on my reflex [camera], a detail appeared to me: inside the nozzle, I can see the glowing light of the combustion chamber behind the turbines."

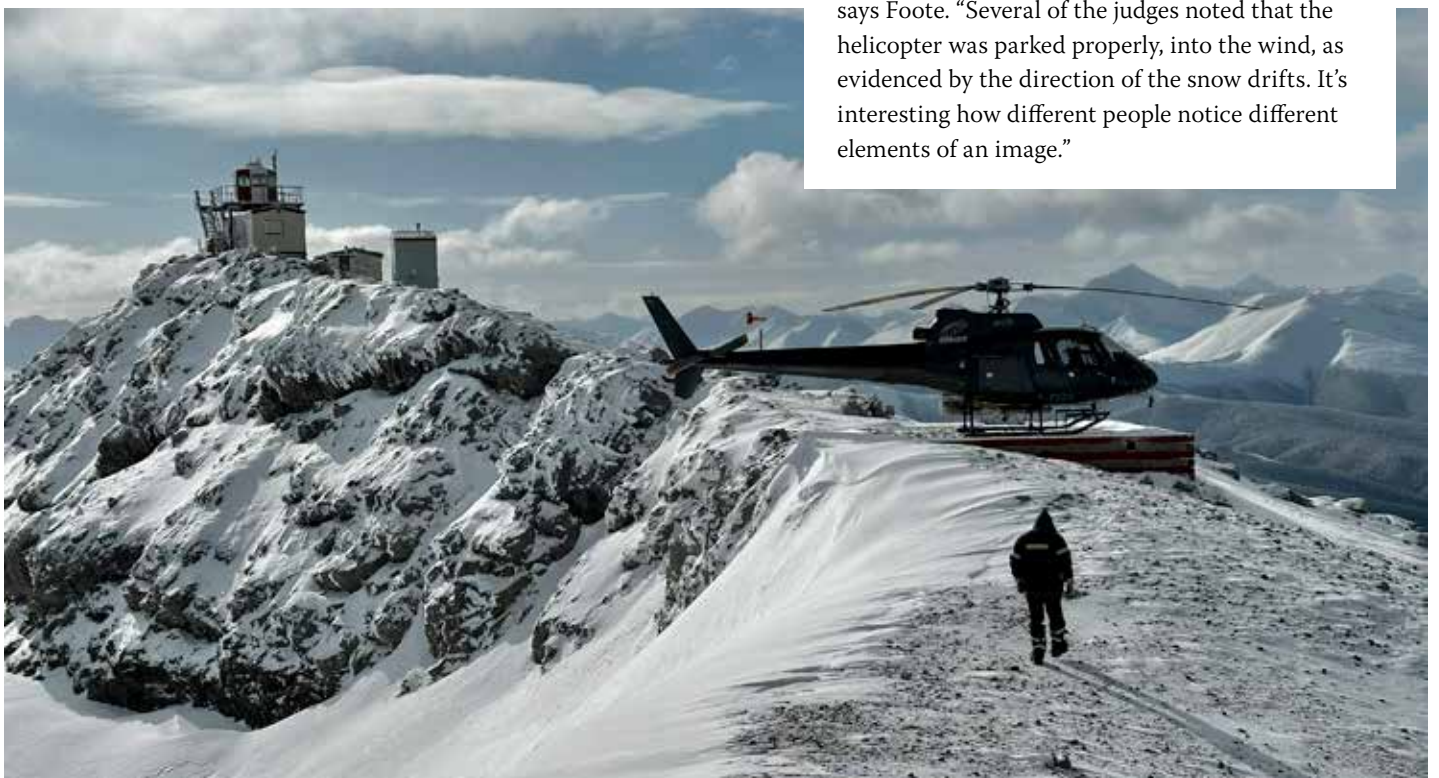
People and Their Helicopters/Drones

Nicolas Bilodeau

Alberta, Canada

In this photo, an AStar FX2 operated by Airborne Energy Solutions rests on the helipad at the Ram Mountain fire lookout in Alberta, Canada. The crew was performing telecommunication services.

"We could feel the cold through this image," says Foote. "Several of the judges noted that the helicopter was parked properly, into the wind, as evidenced by the direction of the snow drifts. It's interesting how different people notice different elements of an image."





How We Serve

Tim Watkins

Austin, Texas, USA

In this photo, the Travis County STAR Flight team completes its last water drop of the day from a Leonardo AW169. The multimission public safety program provides air ambulance services, hoist rescue, firefighting, and law enforcement assistance in Central Texas.

“Sometimes, we just have to appreciate a great sunset and silhouette,” says Foote. “It also helps that the photo shows the versatility of helicopters that fight fire.”



Helicopter/Drone
Digitally Enhanced Photos **Shauni Hurley** Vernal, Utah, USA

Photographer Shauni Hurley took this photo after noticing that a beautiful Kaman K-Max had been sitting stationed at Vernal Regional Airport (KVEL) for a week while she and her team were on fire watch in the area.

Hurley and her team were thrilled when the aircraft's pilot and maintenance crew told them all about the "awesomeness" of helicopters and let the group look around and "drool a little (or a lot)" over the K-Max.

"I have always loved aviation, and as a photographer, I love capturing the amazing details and different angles of all aircraft," says Hurley.

"Our judges appreciated the reflections of the sky and light on the sides of the aircraft and the photographer's positioning of the rotor blades in the break in the clouds," says Foote. "It was also noted that while the photo is digitally enhanced, it is not immediately obvious what was manipulated."

Helicopters/Drones
in the Military
Ryan Riley

Enumclaw, Washington, USA

This photo shows sailors from aircraft carrier USS *George H.W. Bush* attaching a cargo hook to an MH-60R Seahawk helicopter during a replenishment-at-sea in the Mediterranean Sea on Feb. 17, 2023.

The aircraft belongs to Helicopter Maritime Strike Squadron 46. "The judges talked about the lines in this image: the rotor blades and the helicopter line up with the clouds and the deck crew," notes Foote.





Join APSA this summer in Houston, TX, as they return to the site of their inaugural conference & exposition for the premier public safety aviation training and networking event of the year! Whether you manage, fly or fix helicopters, fixed-wing or UAS for law enforcement, SAR, EMS, firefighting and/or natural resources missions, APSCON/ APSCON *Unmanned* is the place to be this summer. We bring practitioners and subject matter experts together to share best practices, tactics, techniques, mission training, safety management, human factors and so much more with over 50 courses, classes and training sessions offered. Outside of the classroom, the education and networking continues in the exhibit hall where you will experience the latest in public safety aviation aircraft, products and services while interacting with extremely knowledgeable exhibitor reps. And take time to recognize excellence in our profession and get inspired to be your best at our annual Awards Reception. Come network, learn, make new connections and invest in yourself!

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Wrench Turners

Katie L. Brown

Lawrence, Kansas, USA

In this image, a EuroTec Vertical Flight Solutions avionics technician works on an Airbus H125 for Teton County Search and Rescue in Jackson, Wyoming. The aircraft was completed at EuroTec's headquarters in Eudora, Kansas.

"Maintenance crews simply do not get enough credit for the work they do to keep helicopters flying," says Foote. "Our judges felt this image put us in the cockpit with the mechanic, who continues to work intently while the photo is being shot."



QUICK FACTS

Jason Quinn

US Coast Guard Helicopter
Rescue Swimmer

CURRENT JOB

I host *The Real ResQ Podcast*. I also work as an instructor for SR3 Rescue Concepts, a helicopter operations training company. The podcast provides a unique platform for sharing the stories and insights of individuals involved in rescue operations worldwide. Working with SR3 allows me to be part of a team of professionals who pass on knowledge from their vast backgrounds and years of experience. Teaching a wide range of search-and-rescue (SAR) techniques, such as hoist rescue, longline, rappel, fast rope, firefighting, and more, contributes to the professional development of those in the field while also enhancing the overall capabilities of rescue teams.

FIRST HELICOPTER AVIATION JOB

My first job in a helicopter was serving as a US Coast Guard (USCG) helicopter rescue swimmer. My first helicopter rescue was in November 2000 while stationed in Kodiak, Alaska.

FAVORITE HELICOPTER

My favorite helicopter is the Sikorsky H-60. The Jayhawk, Black Hawk, Seahawk, Pave Hawk—no matter the model, I love flying on it. The Sikorsky H-60 has a special place in my heart.

How did you decide helicopter aviation was the career for you?

When I was in USCG boot camp, they were showing us videos about all the options for the jobs you could do. One of the videos showed an aviation survival technician/helicopter rescue swimmer jumping into the ocean. As soon as I saw that, I was sold on being a USCG helicopter rescue swimmer from that day forward.

How did you get to your current position?

One thing led to another, and I have been able to take advantage of each opportunity that has presented itself. I am beyond grateful for the people and companies who have given me a chance.

What are your career goals?

My goal is to meet, fly with, learn from, and capture on film as many people and SAR agencies as possible to highlight their efforts. By showcasing the differences in the ways they operate, I hope to celebrate the diversity of methods they use while providing a platform to share their knowledge and experiences.

What advice would you give someone pursuing your career path?

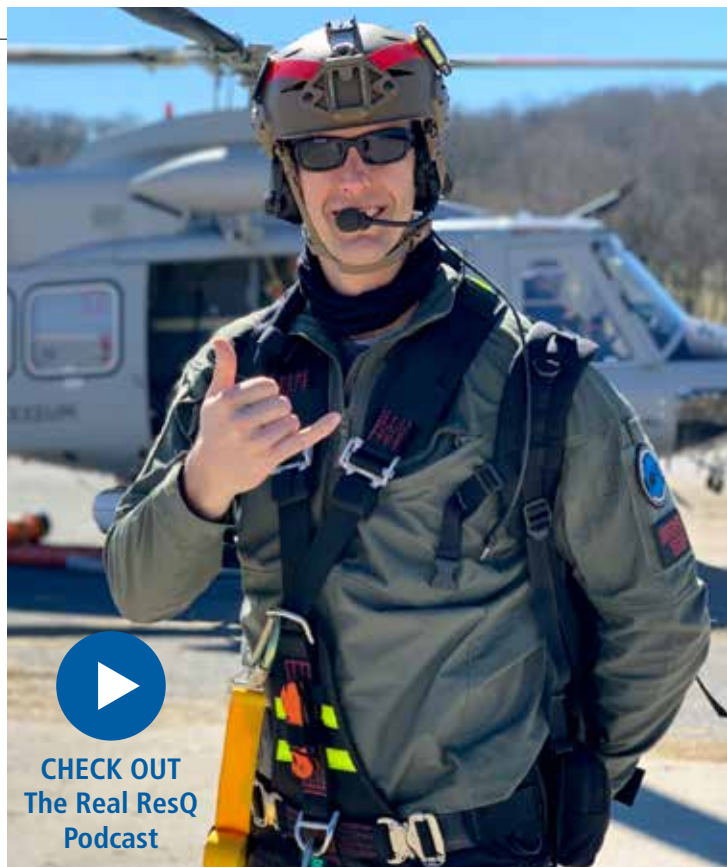
Abide by one simple concept: just don't quit! This is a powerful and straightforward mantra applicable to anyone pursuing a challenging and impactful career, especially in the SAR realm. You will go through phases and periods of your life when some things are harder than others. Everyone hits roadblocks along the way. Hurdles and hard things are just part of the journey. You must find ways to overcome obstacles and create the mindset for success in your field. If it was easy, everyone would do it. So, as simple as it sounds, just don't quit!

Who inspires you?

My wife, Mel, stands out as a continuous source of inspiration. Her qualities, such as patience, affection, and genuine love for life, never cease to amaze me. She goes out of her way to help others. As an elementary schoolteacher, she imparts a simple yet powerful rule to her students: be kind. While Mel is a prominent source of inspiration, the list of individuals who have had a profound impact on my life is extensive and almost endless.

Tell us about your first helicopter ride.

I was an airman at USCG Air Station in Elizabeth City, North Carolina. I was at the unit for training, and at about the one-month mark, I had completed my Duck syllabus. This allowed me to be a "survivor in the water" for the rescue swimmer. As the Sikorsky HH-60 Jayhawk's engines started, my anticipation and excitement soared through the roof! The excitement intensified when we reached the designated offshore training area. After a few training exercises, it was my turn to participate. Positioned at the edge of the



helicopter door, about 60 ft. above the water, I was given the go-ahead to remove my gunner's belt. After the helicopter hoisted me down to the water, I found myself floating in the Atlantic Ocean, with the helicopter hovering above as the rescue swimmer descended to my location. It was an awesome experience!

What still excites you about helicopter aviation?

Everything excites me about helicopters. Throughout my career, I've been fortunate to earn a living by jumping, hoisting, and fast roping out of helicopters, not to mention hanging from them. The thrill gets even better when I have the chance to explore new gear, equipment, and techniques.

What challenges you about helicopter aviation?

One of the challenges I often encounter is

a resistance to change and a persistence in sticking to "the old ways." While those methods may not necessarily be wrong, the notion of "that's the way we've always done it," doesn't hold true. It's crucial for individuals, agencies, and companies to keep up with the latest and most effective techniques in rescue operations.

What do you think is the biggest threat to the helicopter industry?

The impact of decision makers who sit behind desks and may not be actively engaged in field operations. It's a recurring issue: individuals who are focused on budget considerations, among other things, make decisions without firsthand experience of the challenges operators face in the field.

This approach can have far-reaching consequences for those actively involved in rescue missions. A more holistic perspective is needed, one that considers the

life-and-death nature of the work, even if it involves higher costs for training and equipment.

Complete this sentence: I know I picked the right career when ...

An HH-60 hoisted me down into the ocean. It was a vivid and powerful experience. The cacophony of the helicopter's sound, the sensation of rotor wash pelting against my face, and the precision of the hoisting operation all converged in that moment.

Complete this sentence: I love my job, but I'd rather work for a paper company in Scranton when ...

There is no place I would rather work. I believe every USCG rescue swimmer would say the same thing. I have one of the most amazing jobs in the world. It has been a true blessing. I'm paid to jump out of helicopters! That's just awesome! 🐾

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Not Like Riding a Bike

Unlike bicycle riding, certain critical aviator skills require more frequent, consistent practice to retain.



BICYCLE RIDING IS THE STEREOTYPICAL example of a durable skill: once learned, it's just about permanent. Even after a lapse of years, a rider can climb back into the saddle and take off after just a couple of wobbles. The experience of rusty pilots climbing back into the cockpit suggests that some aspects of basic airmanship work in the same way. The view from the pilot's seat reinforces the feeling that the controls reawaken the memory of physical aircraft control, so simple maneuvers can be accomplished on the first flight back in the cockpit.

Other skills, however, are highly perishable, requiring frequent and consistent practice to retain—particularly those that require interpreting abstract information in potentially counterintuitive ways. Attitude instrument flying is the quintessential example. An April 2023 report by New Zealand's Transport Accident

Investigation Commission (TAIC) identified proficiency with night vision goggles (NVG) as another.

The Mission

On Apr. 22, 2019, a fishing vessel in the Southern Ocean requested an air medical evacuation of a crew member in need of emergency hospitalization. The flight would also provide an opportunity to replenish the ship's stock of first-aid supplies.

At the time, the boat was 210 nm south of the Auckland Islands. A frontal system was approaching New Zealand from the south, so the air ambulance operator planned to position the aircraft on Enderby Island, where the company maintained a shelter and a fuel supply, before the front arrived. The aircrew would spend the night while the vessel sailed toward a protected anchorage.

The plan was to fly to the rendezvous point with only minimal equipment, return to shore to stabilize the patient, move him to a more comfortable stretcher while the helicopter refueled, then transport him to Invercargill, South Island. The crew expected to meet the ship at 7:50 am the next day.

The Aircraft

The operator dispatched a Kawasaki BK 117 C-1, a twin-engine helicopter whose pair of 692-shaft hp Turbomeca Arriel 1E2 engines drive a four-bladed rigid main rotor and conventional tail rotor. Its maximum gross weight of 3,350 kg (7,385 lb.) provides a useful load of 1,249 kg (2,754 lb.), and a high-mounted tail boom fitted with dual vertical stabilizers allows room for clamshell rear doors that facilitate loading.

The 1996-model aircraft was imported into New Zealand in May 2016, registered as ZK-IMX, and acquired by the air ambulance operator in July 2017. The helicopter came equipped with a radio altimeter primarily visible from the pilot's (right) seat and NVG-compatible lighting certified by the Civil Aviation Authority (CAA) of New Zealand in simulated blackout conditions in December 2017. The helicopter's last recorded total flight time before the accident was 6,559 hours on Mar. 23, 2019.

The Crew

The single pilot was accompanied by a paramedic and a winch operator. His commercial pilot certificate was valid for VFR flight only. His 6,673 hours of experience included 43 hours in the BK 117 C-1 and 135 hours in all types during the preceding 90 days. He held a current First-Class Medical Certificate and had received both his initial NVG training and helicopter underwater egress training (HUET) in 2013.

The pilot had logged 73 hours of night flying; his logbook did not specify NVG time, but he told investigators that "all recent night flight" had been on NVG, including 0.5 hours in the previous week and another 0.4 in the preceding 90 days. Those hours combined included three takeoffs and landings to maintain currency.

The paramedic had logged 198 hours of NVG time since undergoing initial training in 2015, including a revalidation check just 14 days before this flight. The paramedic also completed HUET refresher training in May 2018 and received overwater emergency training covering ditching procedures, aircraft evacuation, and life raft operation. The winch operator had taken the same overwater emergency course, completed

refresher HUET training in September 2013, and logged a total of 120 hours of NVG time, including a revalidation check in November 2018. Both were contract employees who flew with the operator on an on-demand basis.

The Flight

The crew intended to leave their base at Te Anau, South Island, in time to reach Enderby Island in daylight, but delays in releasing and delivering the required medical supplies pushed their departure back to 3:43 pm local time. The paramedic took the left-front seat, planning to monitor the flight using NVG. The winch operator was still returning to base by road and was picked up en route to a fuel stop at Invercargill, where the crew also donned their immersion suits and life jackets and checked the NVG. The pilot filed a verbal flight plan with local air traffic control (ATC), anticipating three hours of flight time, and departed VFR at 5:03 pm.

The flight extended beyond the ATC zone and lasted past the end of the service day, but the operator maintained contact via a VHF radio repeater on Stewart Island, then by satellite phone beyond radio range. The pilot made regular position and status reports, and a satellite tracking system provided flight-following information.

At 6:50 pm, with the helicopter still in daylight at 3,000 ft. about 90 nm from its destination, the pilot discussed the crew's progress with the company's chief pilot and concluded that it was safe to continue. The clouds of the approaching frontal system were visible on the horizon. At 6:58 pm, the pilot reported that he and the paramedic were using NVG; the winch operator, who was not, recalled that it was "pitch black."

As they approached their intended landing area, it appeared to be covered by a cloud bank. An area with clear weather extended northwest from Port Ross. The helicopter's GPS database included alternative landing sites where they could camp overnight, but the pilot proposed flying south past Ewing Island to descend in the clear area, then follow the coastline back to Enderby Island. He turned south at 7:34 pm, passing 1.5 nm east of the landing zone, and set the radio altimeter reference to 1,000 ft. as he turned west and began to descend. He subsequently reset the reference to 500 ft. and then 250 ft. while slowing to 75 kt. About one-quarter mile south of Ewing Island, the paramedic saw cliffs ahead and alerted the pilot. The pilot flared to slow the helicopter and tried to turn right, but at 7:43 pm, the aircraft struck the ocean's surface in a shallow descent and slight right bank.



The accident aircraft, a 1996-model Kawasaki BK 117 C-1. (TAIC/Southern Lakes Helicopters)

The helicopter flipped over and began to fill with water. The pilot and paramedic escaped underwater, and the paramedic rescued the winch operator, who was knocked unconscious. The sea was “dead calm.” The paramedic tried to retrieve the life raft and the survival supplies packed in the aircraft’s emergency bag but couldn’t find them in the dark before the helicopter sank. The winch operator regained consciousness.

The crew’s immersion suits provided enough buoyancy to enable them to paddle 100 m to shore, where they climbed through a kelp bed onto the rocks. They took shelter in the bush but, without the personal locator beacons and other gear lost in the emergency bag, were unable to attract the attention of a P-3 Orion airplane that passed overhead or vessels they could see offshore.

The Rescue

The operator’s chief pilot saw that the flight-tracking signals had stopped updating and tried to reach the crew by satellite phone. After confirming that the satellite tracking had not malfunctioned, the chief pilot contacted the Rescue Coordination Centre New Zealand (RCCNZ) at 8:08 pm, 25 minutes after the accident. The RCCNZ in turn arranged for a Royal New Zealand Air Force P-3 Orion to initiate a visual

search and asked five fishing vessels in the vicinity to assist.

The P-3 took off at 10:51 pm and arrived on the scene the next morning about 1:20 am, but low cloud cover prevented its crew from conducting a low-altitude search, so they dropped flares and attempted an infrared search for warm bodies. The first fishing vessel arrived in the area at 11:23 pm. One of the fishing boats diverted to Bluff with the patient who’d suffered the initial emergency. The other vessels established a search grid that located the helicopter’s left sliding door. Three rescue helicopters launched at 10:15 am the next day and reached the scene in 27 minutes, where they spotted the aircrew’s brightly colored immersion suits and evacuated them to the hospital in Invercargill.

The Investigation

Eighteen days after the accident, a private contractor retrieved the main wreckage from the sea floor. The tail boom had separated and drifted away and was not found. Examination confirmed that the helicopter was functioning normally at the moment of impact. The pattern of damage to the fuselage and main-rotor hub informed the TAIC’s reconstruction of the angle and velocity of impact.

The TAIC report goes into some detail

about the technology underlying NVG, which multiplies available light, particularly infrared light not otherwise visible to the human eye, but do not create ambient lighting that doesn’t exist otherwise. On the night of the accident, the moon was below the horizon and celestial illumination was minimal. Limitations on contrast resolution are particularly acute over featureless surfaces such as large bodies of calm water. The available light the night of the accident, as estimated by the UK Meteorological Office on request from the TAIC, was one one-thousandth that of a full moon.

Interviews with the crew along with GPS tracking data from both the satellite link and an onboard unit provided more detail into the flight’s final moments. As the helicopter descended, the paramedic began providing altitude callouts that were neither expected nor requested by the pilot—instead they were based on the barometric altimeter, which the pilot had not reset for local atmospheric pressure since leaving Invercargill. The difference resulted in readings about 50 ft. higher than given by the radio altimeter, which was not easily seen from the left seat. The pilot set the radio altimeter for progressive descents but did not monitor its alert light as he scanned for surface references; the altimeter did not give audible alarms.

Though their employer’s operating specifications called for a maximum descent of 300 ft. per minute (fpm) on NVG, an initial descent rate of 500 fpm increased to 1,200 fpm as the pilot tried to drop down into what he thought was a clear area. The paramedic, who had no training in aviation instrumentation or phraseology, warned the pilot to check his “speed” rather than “descent rate,” which the pilot interpreted as “airspeed.” The cliffs they saw at the last minute were only 20 m (66 ft.) high, and the pilot recalled being “surprised” that the helicopter was so much lower than expected.

TAIC investigators took pains to note the latitude provided by regulations

regarding NVG operations. Pilots and nonpilot crew alike were required to take a ground training course and complete three takeoffs and landings in the preceding 90 days. Pilots had to log five hours of supervised NVG flight for certification, and nonpilots only two hours. The pilot's last three takeoffs and landings had occurred over the course of two flights that included less than one hour of NVG time, and his last NVG competence check four months earlier had not involved low-altitude flight over water.

The TAIC report concluded that, "With more currency on NVG, the pilot might have questioned [the] impression of a dark area beyond the cloud," particularly since the crew had seen a layer of low fog during the daylight portion of the flight.

The Takeaway

There's little question that the crew's HUET training saved their lives—but the immersion suits didn't contain the flares, personal locator beacons, or cutaway knives specified by company procedures. (One unidentified crew member did have a flashlight and a pocketknife.)

The stowage of the life raft and emergency gear "go-bag" in the cabin didn't anticipate the impossibility of retrieving them from an inverted fuselage in the dark before the helicopter sank. Thoughtful placement and

perhaps water-activated lights could help assure emergency equipment can reliably be accessed and deployed in the shock of an actual emergency.

The TAIC report details how the flight's risk profile progressively escalated. The distance from Invercargill to Enderby Island exceeded the helicopter's standard range, requiring supplemental fuel in an external pod. Past a certain point, returning to the mainland was impossible, necessitating a landing somewhere in the Auckland Islands.

The original plan would have gotten the crew to the destination before dark, but the delayed departure left them relying on NVG to land on uninhabited terrain during the darkest part of the night. The pilot was also nearing his duty-day limitations even without accounting for the additional fatigue of NVG flight, estimated by an advisory circular as 2.3 times that of VFR daytime flight. His lack of an instrument rating increased reliance on visual cues, including depth perception—known to be prone to error using NVG—and probably contributed to lack of attention to the radio altimeter and the consequent failure to stabilize the aircraft at an altitude safely above the terrain.

The outcome demonstrates that the difference between nominal currency and genuine sharpness becomes increasingly crucial as the margin for error diminishes. [✈️](#)

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Light 'Em Up

Consider these factors when deciding whether to upgrade your aircraft lighting.



HIGH-QUALITY LIGHTING IS CRUCIAL TO the success of any rotorcraft fleet. From landing lights and anticollision lights that ensure safety and compliance to lamps that enable a specific function—such as searchlights for police, firefighting, and rescue operations—securing the proper illumination can make a huge difference in a mission's success.

Whether you're looking for a lasting option for a new helicopter or seeking to retrofit an older aircraft with a higher-quality lighting solution, identifying the type of lamp that best fits your needs entails considering a variety of factors, including brightness, regulatory compliance, financial impact, and maintenance requirements.

As with any decision involving a significant financial commitment, it's important to evaluate your choices using a comprehensive cost-benefit analysis that starts with an extensive assessment of your current lamps and infrastructure.

Evaluate Your Existing Infrastructure

When determining whether to upgrade your lighting, be sure to include in your assessment a detailed

examination of the types, number, costs, and benefits of your current lamps. This will allow you to compare your existing inventory with prospective upgrades.

In addition to ascertaining the average life span of individual lamps, gather key data points such as the frequency and cost of changeouts, the amount of downtime required for lighting-related repairs and maintenance, and the availability of replacement parts.

Evaluate the infrastructure of your existing lighting systems to determine whether more comprehensive upgrades are necessary to accommodate a new lamp type. Whereas more-recent helicopter models have built-in light-emitting diodes (LEDs) or can accommodate LED lamps, older aircraft often must undergo larger-scale system upgrades to be compatible with more advanced lighting systems. If you determine that significant reengineering is necessary for a successful lighting upgrade, factor in the estimated up-front cost of such an overhaul as part of your cost-benefit analysis.

Assess the Cost of Upgrading to LED

The bottom line is that upgrading to LED lamps can result in notable cost savings and reduced energy

consumption over time. The incredibly long lifespan of LEDs is among the more compelling reasons to make the switch, as a single LED lamp lasts approximately 50,000 hours, compared with 2,000 to 4,000 hours for halogen lamps and 800 hours for incandescent lamps. Although LED lamps are typically more expensive than shorter-lived alternatives, your cost-benefit analysis may reveal that the reduced need for replacements will cancel out the high initial cost of choosing LEDs.

The materials that make up LED products can range from commercial to military grade, with commercial options costing less depending on the strength and degree of durability your aircraft requires. Although you will have to replace LEDs less frequently, the need for changeouts will still arise on occasion, so factor in the availability of replacement parts and the cost of hiring a specialized mechanic to perform installations and maintenance.

Though LEDs have their advantages, they can be prohibitively expensive for many aircraft operators and managers. A less-costly alternative would be to keep your existing lamps or upgrade to higher-quality halogen lighting. Halogen options, which offer durability and bright light, are usually readily available from manufacturers or suppliers. Although halogen systems require maintenance and changeout-related costs over time,

they're generally compatible with older lighting systems and involve a much lower cost per lamp than do LED upgrades.

Consult an Experienced Manufacturer

Making an informed choice about a lighting upgrade includes comparing the costs and energy savings of each potential option with those of your existing system. Doing so makes it possible to determine whether an upgrade is financially viable, and, if so, which lamp type best suits your budget. During your cost-benefit analysis, consult a qualified lamp manufacturer about the best options for your aircraft.

When selecting a manufacturer, prioritize well-established companies that have a diverse product line, since this demonstrates that they're experienced in creating myriad lighting systems rather than focusing on a single product. Partnering with a quality manufacturer also makes it easier to ensure that the company's lighting systems comply with FAA regulations.

As the landscape of aircraft lighting technologies continues to evolve, a comprehensive cost-benefit analysis that compares your existing exterior lighting system with prospective upgrades will help you evaluate the viability of an overhaul that fits your budgetary constraints while aligning with both your short- and long-term aircraft goals. [R](#)



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DURING ROTORCRAFT INSPECTIONS, maintenance, and repairs, aviation mechanics and engineers navigate many safety risks, from personal fatigue and tool control to accessing hard-to-reach components. Mechanics often climb scaffolding and ladders while carrying heavy tools and replacement parts and stretch and bend at awkward angles to work on main-rotor and tail-rotor systems. Given that these systems are at considerable heights, falling is a genuine danger.

Providing mechanics with safe access to their work area is paramount. Choosing proper equipment, including fall-protection platforms specially designed for helicopter maintenance, and opting for solutions that fit your crew's workflow are simple ways to significantly increase safety and efficiency. And looking out for your workforce's comfort and safety is one way to communicate your appreciation for their contributions—which can pay off in a tight labor market.

Smart Steps

Today's aircraft maintenance platforms and ladder stands come in a variety of sizes, styles, and heights and incorporate a broad range of functionality. Choices include standard stock models that work for most operations or custom models that can be designed to fit your maintenance needs. Either way, you have more options than you might realize.

For a safe working environment, consider these tips when selecting fall-protection maintenance platforms and ladder stands:

- Choose structures designed to fit around your specific helicopter's make and model
- Check that the equipment meets OSHA requirements and ANSI standards
- Verify that the equipment includes the basics, such as nonskid traction, sturdy handrails, kickplates, a stabilizing system, and enough room for workers to carry tools and parts up and down the steps safely

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- Opt for ergonomic platforms and stands with anti-fatigue mats or padding to support your crew's comfort and well-being during the often extended hours of standing and kneeling required to perform maintenance and inspections
- Choose platforms that have dedicated places for securing tools, hardware, foreign object debris, and trash (including oily and combustible items) to improve efficiency and minimize the risk of dropped and misplaced items
- Look for features that reduce stress and strain on your crew, such as an easily adjustable height and lockable wheels for moving the equipment between the hangar and ramp
- Take all your workspaces into consideration, including limited areas and fieldwork locations, and choose well-built ladder stands that are portable or capable of fitting in tight spaces
- Look for structures with a rub rail to protect helicopters from airframe damage, which can be expensive and time consuming to repair.

Tool Management

Managing tools and parts at height poses challenges and risks. It's easy to forget or misplace a tool when working in an awkward or distracting environment. Feeling rushed or fatigued increases the risk.

The hazards are self-evident. Dropped tools and parts can injure someone below as well as cause costly damage to the aircraft or to the components being installed or removed for repair. Misplacing tools can cause critical delays in maintenance. Of course, leaving tools inside an aircraft can be dangerous and costly as well.

To improve tool management and mitigate risks:

- Ensure that crews can easily secure and access tools and components on maintenance platforms and ladder stands
- Add shadow foam to toolboxes not only to hold the tools securely in place but also to make it easy for crews to see which tools are missing
- Opt for a high-tech solution: choose toolboxes with a built-in electronic tracking system that sends an alert when a tool is missing.

The work aircraft mechanics do on the ground is crucial to safeguarding lives in the air, and maintenance itself is inherently hazardous. Adopting these simple recommendations can help you protect your maintenance crew, minimize the risk of falls and other injuries, and reduce potential damage to helicopters, tools, and parts. Given that well-designed ground equipment can last decades, the investment you make to ensure your crew's safety today will be repaid for many years to come. [R](#)

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W.A. 'Dub' Blessing

Renowned pilot, instructor inspired naming of Salute to Excellence Flight Instructor of the Year Award in his honor.



WALTER ALLEN (W.A.) "DUB" BLESSING, a flight instructor, pilot, and aircraft engine mechanic who also served in the US Marine Corps (USMC), died on Jan. 23, 2024. He was 89.

Born on Jan. 22, 1935, in Fort Worth, Texas, Blessing served in the USMC from 1953 to 1961 as a jet engine mechanic in the 2nd Marine Air Wing and completed his helicopter flight training with the 149th Aviation Battalion of the Texas National Guard.

Blessing then joined the flight staff of Southern Airways of Texas, the civilian contractor of the US Army Primary Helicopter School at Fort Wolters, near Mineral Wells, Texas. Blessing took a position as a ground-school and flight instructor with Jet Fleet Corp. of Dallas, Texas, in December 1978, later becoming the company's helicopter division manager. In the early 1980s, he was the personal helicopter pilot of H. Ross Perot Sr.

In 1985, Blessing was the first recipient of VAI's Outstanding Certified Flight Instructor Award, later renamed in his honor as the Salute to Excellence W.A. "Dub" Blessing Flight Instructor of the Year Award. In 2009, VAI presented him an Honorary Lifetime Member Award. At the close of his flying career, Blessing had accumulated more than 22,000 flight hours. [R](#)

Roy M. Simmons

Longtime Columbia Helicopters pilot and executive served as HAI chair in 2004.



ROY M. SIMMONS, A PAST CHAIR of the HAI Board of Directors, past president of Columbia Helicopters, and a US Marine Corps (USMC) veteran, died Dec. 20, 2023. He was 87.

After attending naval flight school in the late 1950s, Simmons joined the USMC, switching to the Marine Corps Reserves in 1963 after leaving active duty as a captain. He then worked as a pilot for JN Conley while also overseeing payroll and managing insurance programs for the heavy-construction contracting company.

In 1966, Simmons met Wes Lematta, founder and owner of Columbia Helicopters. Shortly thereafter, he began working for Lematta as a line pilot. Three years later, Simmons retired from the military as a major. He continued to work for Columbia for 33 years in various roles, including chief pilot, operations manager, director of flight operations, and executive vice president. In 1992, he became president of Columbia Helicopters, retiring from the company in 1999 while continuing to serve on its board of directors.

Simmons was passionate about helicopters and served on many boards and committees, both inside and outside the aviation industry. He served on the HAI Board of Directors as assistant treasurer, treasurer, vice chair, and, in 2004, chair. [R](#)

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