



ROTORCRAFT PRO

Your global media partner for business, education, jobs, news, video & social media.

RotorcraftPro.com

Jan/Feb 2022



**ERICKSON INC.
CELEBRATES 50 YEARS**

**HELIHACK
SOUTH AFRICA**

TECH-DRIVEN MRO

TOUR OPS SAFETY

HELI-EXPO ISSUE

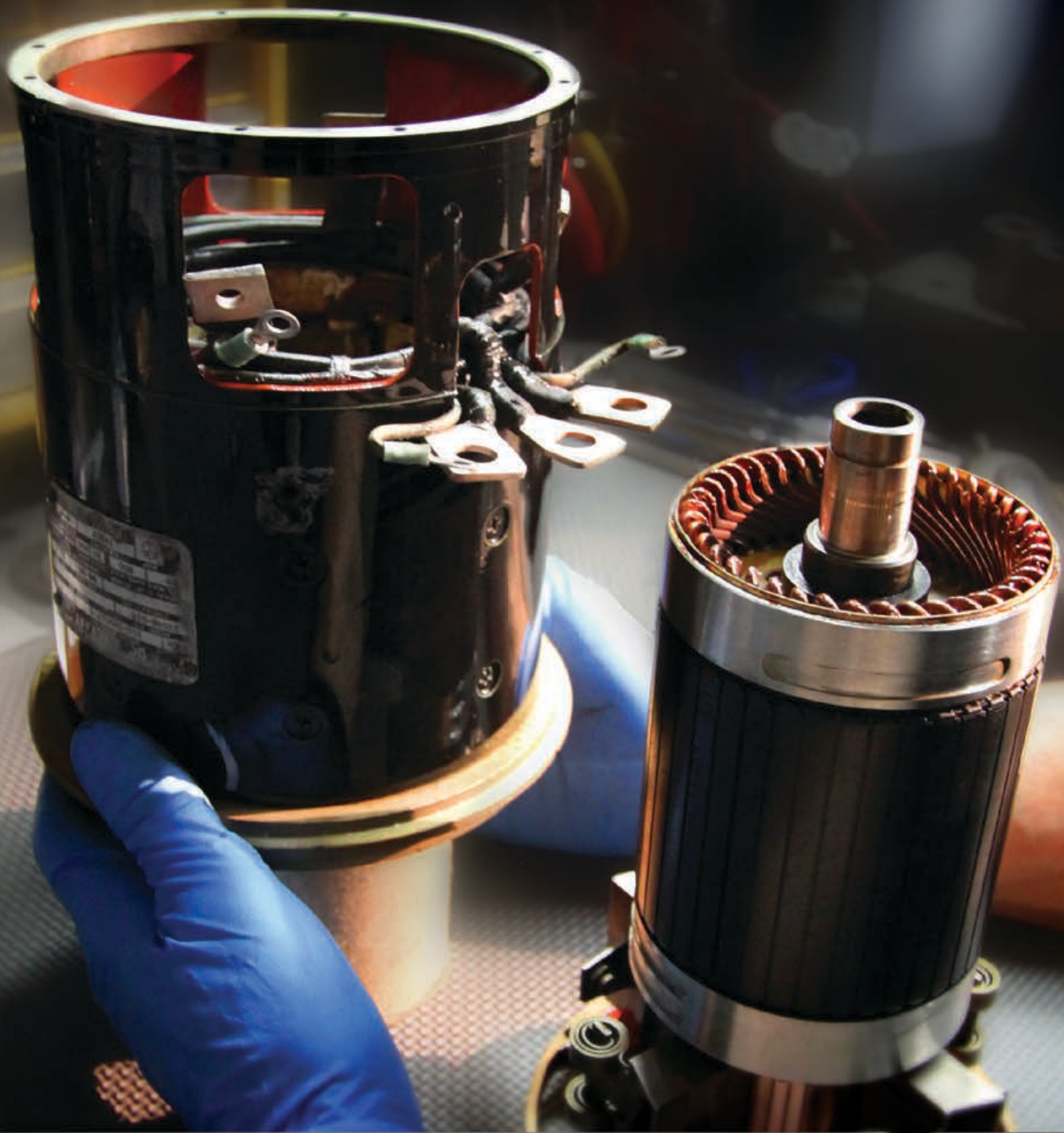
airbus.com   

THE WORLD IS A BEAUTIFUL PLACE

Keeping it that way is at the centre of all we do. That's why, with our unwavering commitment to decarbonisation, Airbus is paving the way for sustainable aerospace. Today, our technological developments are already helping to safeguard our precious planet. Discover more about how we're leading the journey, shaping a brighter future for generations to come.

AIRBUS

In the right hands, it will start a revolution.



PHP
PRECISION HELIPARTS
A **PAG** Company

Call 404-768-9090 or visit heliparts.com.

Visit us at HELI-EXPO, Booth #8834

Avionics
Hydraulics
Accessories
Instruments
Wheels & Brakes

Others sell parts, WE SELL SUPPORT™



Inventory Supported
Maintenance • Repair • Overhaul



FROM LEGACY TO LEGENDARY

CELEBRATING 50 YEARS



COME VISIT US AT
BOOTH #8634
AT HAI HELI-EXPO



Want to learn more about
Erickson's history and milestones
throughout the years?

DISCOVER MORE





FROM THE DESK OF THE EDITOR

HELICOPTER INDUSTRY OFFICIALLY REOPENS WITH HAI HELI-EXPO 2022!

Of course the headline above is a smidge spectacular and only a little dramatic. Although the helicopter industry was negatively impacted by the pandemic, it never really shut down.

Reflecting on this time last year, I remember when the Helicopter Association International made this announcement:

"Until the beginning of 2021, all signs had pointed toward a successful show. Over the past week, as second deposits became due for exhibitors, a large number either pulled out or expressed discomfort with attending or exhibiting. The Board of Directors looked at the numbers and made a difficult decision that continuing with HAI HELI-EXPO 2021 was not in the best interest of the industry."

It was unprecedented; canceling Heli-Expo in 2021 was a big shock! Fast forward just one year and it's apparent that recovery is in full swing for most sectors of the industry.

Heli-Expo 2022 will be in Dallas (March 7-10) and is anticipating 600-plus vendors and over 14,000 attendees. *Rotorcraft Pro* is very much looking forward to visiting customers and interacting with readers and attendees. We hope that you will come see us at Booth 6819.

50-Year Celebration

Inside this issue, we are excited to highlight Erickson Inc., one of the most unique helicopter operations in the world. For half

a century, not only has Erickson been a pioneer in heavy-lift operations and MRO, it also has a reputation for completing some of the most challenging jobs in many of the most austere and grueling environments on the planet. Please join in the celebration by reading the feature and watching the video starting on Page 50. You may also stop by Erickson Inc. Booth 8634 and wish them a happy 50th anniversary.

Predictions Coming True

In my editor's letter at this same time last year, I wrote:

"On the maintenance side of the equation, we speculate that in five years helicopter maintenance won't be the same. HUMS (health and usage monitoring systems) have become so advanced and so lightweight that even the smallest helicopters can benefit from such systems. Predictive maintenance and decision-making can be guided remotely using WiFi, cellular service, the cloud, and mobile device apps, sometimes without a mechanic having to touch the aircraft."

If you check out the story on Page 80 you can see how the 2021 predictions are becoming reality. In this informative article you can learn how original equipment manufacturers such as Airbus Helicopters, Leonardo Helicopters, Sikorsky (a Lockheed Martin company) and the Robinson Helicopter Company are implementing powerful digital technology such as algorithms, artificial intelligence, and digital twins to provide faster and better service to their clients.

Lyn Burks,
Editor-In-Chief

Rotorcraft Pro® is published six times a year and mailed out on or around the 10th of every other month by Rotorcraft Pro Media Network Inc. *Rotorcraft Pro*® is distributed free to qualified subscribers. Non-qualified subscription rates are \$57.00 per year in the U.S. and Canada, \$125.00 per year for foreign subscribers (surface mail). U.S. postage paid at Fall River, Wisconsin, and additional mailing offices.

Publisher is not liable for all content (including editorial and illustrations provided by advertisers) of ads published, and does not accept responsibility for any claims made against the publisher. It is the advertiser's or agency's responsibility to obtain appropriate releases on any item or individuals pictured in ads. Reproduction of this magazine in whole or in part is prohibited without prior written permission from the publisher.

Editor-In-Chief
Lyn Burks
lyn.burks@rotorcraftpro.com
Account Executives
Teri Rivas
teri.rivas@rotorcraftpro.com
Brad Shubargo
brad@rotorcraftpro.com
Circulation Manager
Laura Lentz
Layout Design
Bryan Matuskey
production@rotorcraftpro.com

Online Accounts Manager
Lynnette Burks
lynnette.burks@rotorcraftpro.com
Copy Editors
Rick Weatherford
Joanna Nellans
Social Media Guru
Laura Lentz

Content Creators
James Careless
Randy Mains
Joanna Nellans
Jennifer Ferrero
Rick Weatherford
Wes Van Dell
Randy Rowles
Mark Tyler
Matt Johnson
Uros Podlogar

Corporate Officer
Lyn Burks, CEO

Mailing Address
949 SW Woodland Ave.
Ft. White, FL 32038
Toll Free: 877.768.5550
Fax: 561.424.8036
www.rotorcraftpro.com

ROTORCRAFT PRO



NAASCO – Personal Touch with Proven Reliability.



NAASCO *has your Solution!*

OUTRIGHT PURCHASE & EXCHANGE | REPAIR & OVERHAUL | MANUFACTURING & ENGINEERING



CONTACTORS, RELAYS, TERMINAL BLOCKS | AC/DC MOTORS | ELECTROMECHANICAL | LIGHTING

SEE US IN DALLAS
ON MARCH 7-10 | BOOTH # 8221



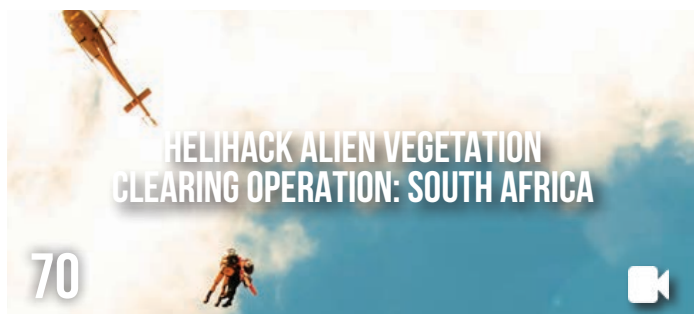
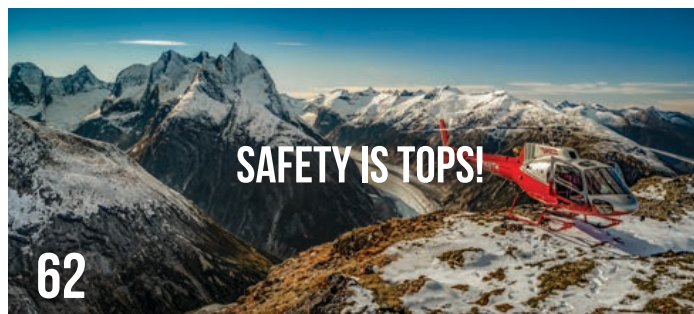
***Do Your Starter Generator Brushes
& Armature Look Like This After 1,281 Hours?***

**ETR-20™ & ETR-25™
1,000 Hour Brush Life
Guarantee**



CONTENTS

FEATURES



DEPARTMENTS

- 10 MY 2 CENTS**
RPMN COLUMNIST RANDY MAINS
VOICES HIS INDUSTRY VIEWS
- 12 MEET A ROTORCRAFT PRO**
JERRY TRIMBLE, OWNER JERRY TRIMBLE HELICOPTER INC.
- 14 EXECUTIVE WATCH**
LARRY ALEXANDRE – PRESIDENT, UNITED ROTORCRAFT
- 18 MIL2CIV TRANSITION**
TIPS FOR THE TRANSITIONING MILITARY HELICOPTER PILOT
- 20 MAINTENANCE MINUTE**
TRICKS OF THE TRADE FOR HELICOPTER MECHANICS

- 22 HELIPHOTOS**
- 24 HANGAR TALK**
INDUSTRY NEWS RELEVANT TO YOUR BUSINESS
- 40 BY THE NUMBERS**
FASCINATING AND FUN FACTOIDS
- 42 HANGAR TALK UAS**
NEWS RELATING TO UNMANNED AERIAL SYSTEMS
- 48 PRODUCTS & SERVICES FOCUS**
JET SHADES & HELICOPTER HANDLER
- 88 ROTORCRAFT CHECKRIDE**
IIMC | DARWIN'S TANGLED WEB

VIDEOS

- 33** DEFIANT EXECUTES FLRAA
MISSION PROFILE
- 44** JETSON ONE SWEDISH EVTOL COMPANY
SEEKS INVESTMENT
- 51** ERICKSON CELEBRATES 50 YEARS
- 71** HELIHACK SOUTH AFRICA
- 85** AIRBUS HELICOPTERS HDATAPOWER



COVER

ERICKSON S-64 FIGHTING
FIRES IN AUSTRALIA.

PHOTO: NED DAWSON



PASSION. PURPOSE. COMMITMENT.

Hiring Pilots and Aviation Maintenance Technicians

When critical medical care is needed, our FAA-Recognized Safety Management System and state-of-the-art equipped fleet gives our Pilots and AMTs the tools they need to help provide patients with access to a higher level of healthcare.

As a part of the Global Medical Response family, Air Evac has the resources to advance your career with more than 150 locations across 18 states.

LEARN MORE lifeteam.net/career-center



HEAR FROM
OUR PILOTS.

ONLINE INTERESTS

JOBS, NEWS, FORUMS, ARTICLES, VIDEOS, PHOTOS, CLASSIFIEDS, LINKS & MORE

THIS ISSUE'S SURVEY

HOW ARE PERSONNEL SHORTAGES IMPACTING YOU PERSONALLY?

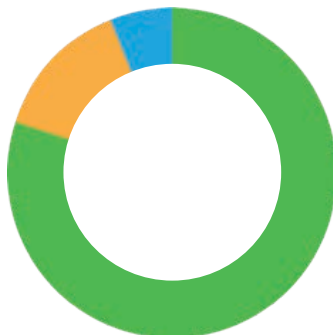
- ☐ POSITIVELY - MAKING MORE \$\$ IN OVERTIME AND WORKOVER
- ☐ NEGATIVELY - FATIGUED AND UPSETTING WORK/LIFE BALANCE
- ☐ NO IMPACT AT ALL
- ☐ UNSURE

LAST ISSUE'S SURVEY

DO YOU USE SUN SHADES TO KEEP THE HELICOPTER COOLER OR TO PROTECT THE INTERIOR WHEN THE AIRCRAFT IS SITTING ON THE GROUND?

- **80%** YES
- **14%** NO
- **6%** NO, BUT I WISH MY OPERATION UTILIZED THEM

TAKE SURVEY NOW:
[ROTORCRAFTPRO.COM](https://rotorcraftpro.com)



ANOTHER AWESOME PHOTO

[@GERBEN_PHOTOGRAPHY_HUEY](#) IN OPERATION BETWEEN THE MOUNTAINS! 🚁

SOCIAL MEDIA



RECENT JOBS

[POST OR VIEW JOBS: ROTORCRAFTPRO.COM](#)

UTILITY PILOT

PRECISION LLC

BELL 212/UH-1 PILOTS

INTERMOUNTAIN HELICOPTERS

CHIEF PILOT

CHATHAM COUNTY

R-44 TOUR PILOT

RAINBOW HELICOPTERS

CHIEF PILOT

RAINBOW HELICOPTERS

A&P MECHANIC

LAKE SUPERIOR HELICOPTERS

PILOT

CONFIDENTIAL

A&P MECHANIC

ANTHELION HELICOPTERS

FLIGHT INSTRUCTOR/COMMERCIAL PILOT

ANTHELION HELICOPTERS

CFI/TOUR PILOT

HELI-CO

B206/AS350 PILOT

APEX HELICOPTERS

MAINTENANCE MANAGER

BLACK HILLS AERIAL ADVENTURES

TOUR PILOT

BLACK HILLS AERIAL ADVENTURES

TOUR PILOT

EXECUTIVE HELICOPTERS

CFII R22/R44

SMOKETOWN HELICOPTERS

TOUR/CONTRACT PILOTS

TEMSCO

PILOTS/MECHANICS (VARIOUS LOCATIONS/INCENTIVES)

AIR EVAC LIFETEAM

PILOTS/MECHANICS (VARIOUS LOCATIONS/INCENTIVES)

MED-TRANS

PILOTS/MECHANICS (VARIOUS LOCATIONS/INCENTIVES)

AIR METHODS

UTILITY PILOT

HENDERSON AVIATION

TOUR PILOT

PINNACLE HELICOPTERS

UTILITY PILOT

HILLSBORO AVIATION

A&P TECH - EC145-PSI

METRO AVIATION

A&P HANGAR TECH - EC145

DTHMX, METRO AVIATION

FIELD BASED A&P - AOG TEAM

METRO AVIATION



R66 TURBINE



TOWN & COUNTRY

- Glass Avionics & Autopilot*
- Extended Range with Aux Fuel Tank*
- Baggage Compartment



www.robinsonheli.com

*Optional equipment. © Robinson Helicopter Company. R66 and Robinson are registered trademarks of Robinson Helicopter Company

MY 2 CENTS

DYING TO PLEASE - AGAIN

BY RANDY MAINS

All parents reach a point where they eventually have to trust that they have done all they can to teach their kids what's right and wrong, what's safe and unsafe. In the 10-plus years I have been writing this column for *Rotorcraft Pro* magazine, I have felt like a parent offering advice, guidance, and tools I gained from over a half-century of aviation experience when I try to help my readers bring themselves and their passengers home safely at the end of each flight.

In this context, as a parent, I despair whenever I learn of yet another totally preventable accident like the recent crash of a Bell 407 in Louisiana marginal weather. The horror of it was caught on several commercial vehicles' dash cams when the helicopter plummeted, rotorless, then crashed on the Bonnet Carre Spillway on Dec. 14, 2021.

Pilot Joshua L. Hawley, 42, was killed immediately after his aircraft hit the raised eastbound span of Interstate 10 at milepost 212. Hawley made the decision to scud run in marginal weather, hoping to make it to an airport to pick up his waiting passengers. What makes this accident even more tragic is that Hawley was, according to his obituary, a loving husband and the father of three young boys.

After the Kobe Bryant crash in January 2020, I wrote a column about it entitled "Dying to Please" (Mar/Apr 2020 issue). I reviewed columns I had written over the years that I felt could have helped prevent the Bryant crash. They also apply to this latest crash. Had both pilots read those lessons, remembered them, and acted on them before making their final fatal decision, their tragedies might not have happened.

I urge you to review these articles on the RotorcraftPro.com website. Read them and remember them. They could save your life. They usually begin on page 10 or 11 in each issue. Just click on the word "magazine" at the top and scroll down. Here is where you can find these potentially lifesaving columns:

- Nov 2012 "En Route Decision Point"
- Sep 2013 "This is Stupid"
- Dec 2013 "Nine Hazardous Attitudes"
- Jan 2014 "Four Mental Tools to Keep You Alive"
- Feb 2014 "Qualities of a Professional Operator"
- Feb 2012 "CRM Tips for the Single Pilot"
- Mar 2015 "The Wrong Stuff — My Near-Fatal IIMC Event as a HAA Pilot"
- Jan 2016 "Risk Resource Management"
- Nov 2017 "Integrity: Your Biggest Asset"
- May 2018 "You are Safety's Gatekeeper!"
- Mar 2019 "Just Say NO!"
- Jan 2020 "A Case Study NTSB report — Iowa Crash Human Factors"

After this recent accident, WGNO News in New Orleans reached out to flight instructor Lester Cambre, Jr. for his comments. Cambre has been flying since 1985 in both airplanes and

helicopters. He told the news team, "I think when the gentleman (Hawley) took off he had good weather and when he hit the spillway area, the ceiling dropped a lot and he might have been trying to get through maybe another mile or so and he would have hit clean air."

Cambre points out that there could have been other factors leading up to the accident. "Too often, pilots feel pressured to get passengers where they need to go. In (this) case, the pilot was on his way to pick up some people who were waiting at Lakefront Airport. Sometimes pilots make dangerous decisions in the name of getting the job done." Cambre noted that one antidote to this hazardous behavior relates to HAI's "Land and Live" program. He said, "In other words, when you run into a fog bank, there's a question of whether you should turn back or keep going through it. But even if the helicopter is the latest and greatest, nobody is inventing new ways to crash. It's the same mistakes that too often cost pilots — and sometimes their passengers — their lives. There's better technology out there, but we're still causing accidents the same way we did for 80 years."

Automatic Dependent Surveillance-Broadcast (ADS-B) data tracked Hawley's helicopter flight path as it flew along I-10 towards New Orleans. The helicopter's altitude ranged from 70 to 175 feet. NTSB reported that about 0.88 miles from the accident site, the helicopter descended to 50 feet AGL as Hawley continued to fly along I-10. The helicopter then collided with the western guy wire suspended between two tall trusses that were about 130 feet above the bridge.

After the accident, a United States Coast Guard helicopter was launched to the scene to provide search-and-rescue support. The USCG pilot reported that the weather was visual flight rules (VFR) at Louis Armstrong New Orleans International Airport (KMSY), but deteriorated to marginal VFR then to instrument flight conditions. "The low-level fog allowed the stanchions of the power lines to be barely visible from the east," he said.

Ron Stewart, in an "FAA Safety Briefing" magazine article dated Oct. 30, 2020, offers some tips to avoid flying into wires:

1. Avoid low-level flight whenever it is not essential to the operation.
2. Become familiar with all known hazards in the operations area prior to a low-level flight.
3. Brief all crew and passengers to speak up and be specific if they see power lines, towers, or other obstacles.
4. Look for all indicators of a power line (e.g., right-of-way clearing or support structures).
5. Always cross transmission lines at the point of the supporting structure.
6. Be prepared to climb out of the wire environment if any distraction or confusion occurs (e.g., irrelevant crew conversation, radio call, etc.).
7. Assume that wires are always present in any unfamiliar operations area until proper high reconnaissance confirms otherwise.

Gene Trainor with the FAA Rotorcraft Standards Branch writes in another FAA Safety Briefing magazine issue (May/June 2019):

"The FAA is urging pilots to step up their vigilance for wires and unexpected terrain after a rash of fatal accidents occurred last

MY 2 CENTS

October and November 2019. Seven accidents during October-November were particularly deadly, with 15 people losing their lives. This ranks as the third highest October-November fatal accident total on record in 37 years. The 11 deaths in November set a record for that month."

We helicopter pilots often face unexpected weather changes en route. That is why it's imperative we have a plan of action — one that we will implement sooner rather than later. Use the en route decision point developed by the National EMS Pilots Association: if you decelerate 30 knots less than cruising speed, or if you descend to 300 feet AGL during the day or 500 feet at night due to weather, you've reached that decision point and you do NOT continue.

Another tool: if you think to yourself, "This is stupid," then turn around or land, but do not continue. These are tools

you should use to trigger a response to stop doing what you're doing and quit pressing on.

I keep this quote in mind as I write my column for each issue, and I suggest you think about it too:

"Whenever we talk about a pilot who has been killed in a flying accident, we should all keep one thing in mind: he called upon the sum of all his knowledge and made a judgment. He believed it so strongly that he knowingly bet his life on it. That his judgment was faulty was a tragedy, not stupidity. Every inspector, supervisor, and contemporary who ever spoke to him had an opportunity to influence his judgment, so a little of all of us goes with every pilot we lose."

Your final ace in the hole is simple: if the weather gets questionable, simply "Land and Live."



Randy Mains is an author, public speaker, and AMRM consultant who works in the helicopter industry after a long career of aviation adventure. He currently serves as chief CRM/AMRM instructor for Oregon Aero.

He may be contacted at:

info@randymains.com



DESIGNING FOR THE NEEDS OF TODAY & THE EXPECTATIONS OF TOMORROW

LIFE RAFT DEPLOYMENT



- S-76/Bell 412
- Internal/External Deployment
- Approval Across The Globe

ROTORCRAFT SEATS



- S-76/Bell 412
- Under-Seat Storage
- VIP Editions Available

SPECIALTY PRODUCTS



- Camera Mount Seat
- Movie Prop
- Rotating Track Seat
- Gun-Mount Seat



Established in 1985, Aero Seats and Systems is dedicated to innovation. Being cost effective is just a plus.

AERO SEATS
AND SYSTEMS INC.

340 Thomas Place - Everman, TX 76140 - (817) 5510818 - www.aeroseatsandsystems.com - heather@eroseatsandsystems.com

MEET A ROTOR CRAFT PRO

JERRY TRIMBLE



RPMN: What is your current position?

My wife Alison and I own Jerry Trimble Helicopter Inc. We started the company in 2007 with one helicopter and one airplane. We provide primary and advanced flight training in both helicopters and airplanes. Our school is located in McMinnville, Oregon.

RPMN: Tell me about your first experience with helicopters.

I flew with my dad, Robert Trimble, in one of his Bell 47s back in the '50s. He worked for Etna Helicopters along with his two partners, Bill Mathews and Erling Hertager.

RPMN: How did you get your start in helicopters?

My dad's friend Tom Pfeiffer had a contract to train pilots in Jakarta, Indonesia, and he had me fly over and get about 80 hours of training in a Bell 47. I was currently instructing in airplanes. I had about 700 hours airplane time when I started flying helicopters.

RPMN: When and how did you choose to fly or work on helicopters? Or did they choose you?

I came back to Oregon and I got my commercial add-on with Herb Henderson at Henderson Aviation in Springfield, Oregon in 1976. I had been driving a mix truck for Herb for his spray operations. Herb was spraying with a Bell 47G-4A.

RPMN: Where did you get your start professionally?

I got my A&P at Northrop University in 1978 in Inglewood, California. I was instructing in airplanes at Hawthorne Field just southeast of LAX when a friend introduced me to Frank Robinson. One of Frank's mechanics had just quit, and the ink was still wet on my A&P. Frank offered me a job as a mechanic on the experimental R22 prototype for FAA certification. It was quite an education working for Frank. The first prototype, SN 001, had an issue and ended up in the Pacific Ocean (this happened before I showed up). When they fished it out of the water, Bob Golden, the pilot, was unharmed save for some scratches to his belly that happened when the Coast Guard

pulled him out of the water. It seemed like Bob's only complaint about the entire water landing was that his watch got destroyed by the salt water. He kept asking Frank to buy him a new one.

RPMN: If you were not in the helicopter industry, what else would you see yourself doing?

If I couldn't fly helicopters anymore, I would fly airplanes. When I can't fly either anymore, I want to move myself and my wife to Hawaii. I just want to sit by the pool in Maui drinking overpriced cocktails with exotic plants floating around the ice cubes and watch tour helicopters fly by!



RPMN: What do you enjoy doing on your days off?

My wife and I have a little hobby farm and I enjoy riding my John Deere tractor while trying not to kill myself. I am much more dangerous on that tractor than I have ever been in an aircraft. That is just my opinion.

RPMN: What is your greatest career accomplishment to date?

Well, unfortunately I am no Chuck Yeager, nor have I won any air races at Reno in a P-51 Mustang. What gives me the most satisfaction, personally at this moment in my life, is to be a positive influence. By that I mean, I enjoy being involved with a flight school, seeing that the students are striving towards their goals. These students become flight instructors who, in the end, gain productive employment as a pilot. Seeing the progression is very rewarding to me. The fact that we are still flying R22 SN 011, which I worked on at the factory in 1979, is also important to me. I am never going to sell her. When my flying days are done, Alison and I are

going to donate her to the Evergreen Museum here in McMinnville. But for now, she is still a working girl with 13,305 hours under her belt.

RPMN: Have you ever had an “Oh, crap” moment in a helicopter? Can you summarize what happened?

The classic line that “Flying is hours upon hours of sheer boredom separated by moments of sheer terror” is somewhat close to the mark, however I don’t view most flying as boring. There have been some exciting moments. You can only hope your training takes over and you make good decisions. Hopefully, that adrenaline rush with the shaky hands after you’re safely on the ground doesn’t give you a heart attack. I have been to the ground with two helicopter emergencies and one airplane emergency. I’ve made many precautionary landings due to weather or maintenance issues. As far as helicopters are concerned, I like to quote a former Air Crane pilot from Evergreen Helicopters, Wade Green: “We are going to solve all of our inflight emergencies on the ground.”

RPMN: If you could give only one piece of advice to a new helicopter pilot or mechanic, what would it be?

I’ll put three in one sentence: make sure you have a passion for what you do, perform your duties to the best of your abilities, and if you don’t love aviation go find what you do love.

RPMN: In your view, what is the greatest challenge for the helicopter industry now?

As an industry, we need to educate folks on all the value helicopters can bring to the average taxpayer – from fighting fires to EMS to supporting the energy sector. The helicopter is not just an expensive, noisy toy for the wealthy. HPMM – Helicopter Pilots and Mechanics Matter!

Do you know someone who would be a good subject for *Meet a Rotorcraft Pro*? Email your suggestion to the editor-in-chief: lyn.burks@rotorcraftpro.com

ENHANCE YOUR **SITUATIONAL AWARENESS** WITH THE AMU6500 AUDIO MANAGEMENT UNIT

**BECKER
AVIONICS**



3D AUDIO IMPROVES YOUR PERCEPTION OF YOUR SURROUNDINGS HELPING YOU PRIORITIZE YOUR ACTIONS.

3D Audio
Bluetooth Connectivity
Stereo Music
Crystal-Clear Digital Audio

Up to 12 Transceivers
Up to 12 Receive-Only
Customer Configurable
Plus more!

WWW.BECKER-AVIONICS.COM



EXECUTIVE WATCH

PRESIDENT, UNITED ROTORCRAFT

LARRY ALEXANDRE

BY RICK WEATHERFORD



The first impression is that Larry Alexandre seems not properly placed to lead United Rotorcraft, a well-known maintenance, repair and overhaul (MRO) leader that specializes in customizing helicopter medevac interiors one aircraft at a time. Alexandre is passionate about Lean, the practice of creating a more effective business by eliminating wasteful practices and focusing on value creation for customers. “Very few MROs in our industry believe that Lean principles apply in our world, often because they believe it is only for high-volume manufacturing. I’m a big believer in and practitioner of Lean principles to rally an entire team around making your business better (through efficiency) and creating value for your customers.” Earlier in his career when he worked in Operations at Turbomeca, Alexandre says, “I enjoyed taking inefficient practices, often rampant in fragmented industries like the helicopter industry, and making them more efficient and process oriented. I started each day with the belief that anyone in the team, with the right focus, could find waste in their processes, eliminate it, and improve efficiency.”

With quotes like that, one could envision Alexandre swinging a meat cleaver to cut off fat with little concern for employees and craftsmanship. Isn’t United Rotorcraft known for lovingly customizing one helicopter at a time? How can we let Henry Ford come in and replace custom craftsmanship with industrial assembly lines?

Before we send Cousin Eddie out next *Christmas Vacation* to kidnap Alexandre, tie him in a big red bow, and make him see how his cost-cutting, jelly-of-the-month-club ideas hurt little people, let’s remember one bottom-line fact: real business executives are more human — and humane — than fictional businessman tropes. First impressions can be dead wrong. We never saw Michael Douglas as Gordon Gecko from *Wall Street* reading *Think Like a Monk*, but Alexandre is currently consuming that self-help book about leading a balanced life. (His wife, Prab, is a life coach.) “In my 30s, it was work, work, work all the time, climbing the ladder and trying to prove myself. Maybe I’m just aging, but I make it clear to my team throughout the year that I’m not impressed with someone working 60 or 70 hours a week,” Alexandre says. “I’m impressed by those who get their job done in 40 hours and have a life away from work. I have the responsibility as the leader of a business, as do the leaders around me, to make sure that we give our employees that ability to have balance. It’s so important because eventually burnout happens, people disengage or eventually walk away in a market where it’s difficult to find talent. Our objective as leaders should be to help our teammates work smarter, not ask them to work harder to compensate for inefficient processes. That is the essence of Lean.”

So much for first impressions. Put that in your smipe and poke it, Gordon Gecko! That’s how real business leaders talk.



Let's let Alexandre dispel another misimpression: United Rotorcraft does much more than customize medevac interiors. He says, "Yes, we are known for customizing medical interiors, but we also support law enforcement and firefighting, as well as manufacture a lot of military equipment, most of which is repeat work. We focus on mission-critical equipment: we can design, manufacture, certify, and install that equipment." He further surprises with this fact: "Everyone wants some level of customization for their interior, avionics, and communication equipment, but 80 percent of our baseline work is common among type customers." So, it makes perfect sense to streamline or standardize those common processes to make United Rotorcraft's services more affordable and reliable for more customers. Alexandre says most people don't realize that approximately 30 percent of United Rotorcraft's business comes from manufacturing and assembling the same thing over and over again; that "thing" is medevac interiors for the U.S. Army Black Hawk. United Rotorcraft's large military business is primarily production runs that scream for a balanced operations guy like Alexandre.

How a French citizen like Alexandre landed at his current American helicopter pad is an unconventional story that has no room for misimpressions. The best way to begin his story is to put away our French-English dictionary, for Alexandre has no hint of his native nation's accent and his English vocabulary is precise and broad. He speaks as if he didn't spend his young *garçon* days playing football (soccer) in Parisian parks, which he did, but instead talks like he grew up playing basketball on upstate New York courts — which he did. Hang your preconceptions at the door, come in from the cold and pull a chair by the fire, sip on a fine French wine (Alexandre's favored pastime), and hear his tale...

From Paris to New York

Alexandre was born and grew up in Paris for his first decade of what has been an adventurous life of learning and travel. The Parisian boy's father had a steady job working at Safran Engines (back then, the company was Snecma). Suddenly, Alexandre found himself moving with his sibling and homemaker mom to America as his father transferred to Clinton, New York, to work on supply chain issues. "I was in the sixth grade and didn't know a

lick of English. I moved from a city of millions of people to a small town of 10,000. This profoundly changed the course of my life — for the better," he says. "It not only allowed me the opportunity to immerse myself in a second language (he now additionally speaks Italian and Spanish) but also exposed me to a different culture. Becoming bilingual and bicultural has been a great asset for me."

One American offering Alexandre jumped into was basketball. "That became my sport," he says. In fact, it became more than that; it eventually became his part-time job. At age 17 after returning to France, and for a period of five years, Alexandre actually played semiprofessional hoops for a club outside of Paris. Lest our imagination soar like Michael Jordan, Alexandre sets a screen to keep us in check. "Keep in mind that this was the late 1980s and basketball was just a developing sport in France; I wasn't (French-American NBA player) Tony Parker!" But basketball and school were pretty much Alexandre's young life and he continued the sport into adulthood. Unfortunately, a tendon tear a couple of years ago stifled his court prowess. "I'm still in denial that my basketball days are behind me," he softly concedes.

Education and Service

While in France, Alexandre earned the equivalent of a U.S. bachelor's degree at the ESSEC Business School. (A decade later, Alexandre earned a master's degree in business from The Ohio State University.) Upon graduating from ESSEC, he did a stint with an artificial intelligence (AI) company until he began his compulsory year of military service for France. He spent 1991 in the French Air Force. "After the initial couple of months of training, it became mundane as I got parked at a base, but it's not a bad idea to engage citizens in their country's defense," he says, noting that military service is no longer mandatory in France. That "parked" year was not idle. He says, "So many in the aviation industry are military trained; being familiar with military culture is an asset."



Career Launch

After the air force, Alexandre began his civilian aviation career in earnest. In hindsight, it seemed an inevitable industry for him to enter. “Not only was my father in aviation, but I also had other relatives in the industry and that’s probably why I ended up in aviation and still live in the United States (working in the industry),” he says. Starting out, Alexandre began in sales at a company in England, Sermatech Teleflex, that supplied aviation turbine engine manufacturers like Snecma, GE, Rolls-Royce, etc. He initially moved to Lancashire in 1993 and remained with the company for 11 years, crossing back-and-forth between England and France throughout his employment before eventually being sent to Teleflex’s U.S. headquarters.

At his first company, Alexandre hit the jackpot by finding not only a boss, but also a mentor for life and work: Skip Kundahl. “He was just an amazing guy. What I saw in him was a leader who made leadership look effortless just by being truly empathetic. He was very caring; he was employee- and team-centric. He didn’t make shortsighted decisions, but considered how a decision would affect employees and the company in the long-term.” Alexandre concludes, “He not only showed me how to be a good leader, but also how important it was to be a nice guy. Too often, being a nice guy is seen as a weakness, but here was a guy who had the best results and was loved by his customers and employees.”

With that first role model giving him a good start, by 2001 Alexandre rose to VP of sales and approached his U.S. boss about expanding his sales responsibilities into Operations. Remaining VP of Sales, Alexandre also ran international operations. He already extensively traveled internationally for sales, so his expansion of responsibilities became an efficient use of the company travel budget. “I used the same plane ticket to go see sales customers and to run international operations,” Alexandre remarks. Again, Alexandre was able to find a number of role models around him. “Many of my peers came from GE and brought a wealth of operations management experience with them,” he says. “I sucked all the knowledge I could from them and copied and pasted, in a lot of ways, what they did and made it my own.”

Four Types

One insight Alexandre took from these executives was how to assess employees. (Read and learn!) “I was told there were four types of employees: (1) The guys that have great skills, great performance, and great attitude; these are the ones you reward and groom by giving them more responsibility. They’re an easy decision. (2) The ones that have poor skills, poor performance, and crappy attitude. They need to go; that’s another easy decision. (3) The ones that fall short on the performance side, but have a great attitude. These are the ones that you want to invest in, coach and help them overcome their gaps. (4) The ones that perform, but have a (crappy) attitude and feel rules don’t apply to them. These are the worst type. Because they perform or have a specific or unique skill, they exert a lot of influence in the organization. Their negative attitude however makes them a negative influence on the business. They can become a growing cancer for the business,

and as hard as it may be for a short period of time, these must go. I’ve kept these categories in mind since I learned them 20 years ago and tried to apply them. It’s very hard to tell a star performer with a bad attitude they have to change or have to go. I failed to make that call a few times in my career, and realized too late that I wasn’t following through with what I was preaching.”

When he joined Turbomeca (now known as Safran Helicopter Engines) in 2005, Alexandre discovered the uniqueness of the helicopter industry. “It was very interesting, but very different; I went from having a few very large customers like GE, Rolls-Royce, and Pratt & Whitney, to having 600 smaller helicopter customers in the U.S. alone. The majority of our rotorcraft industry is guys having two to four helicopters who require, demand, and deserve the same level of service as the biggest operators.”

Other Positions

Alexandre spent over five years at Turbomeca, which gave him entrée to the rotorcraft world. After leaving Turbomeca, he spent shorter tenures as CEO and/or president at Sagem Avionics and Heli-One, and was managing partner of a Vancouver-based consulting firm. Alexandre Dhanwant Associates, for over six years. He also serves on boards for Optima Aero and Erickson Inc.

United Rotorcraft

In 2020, Alexandre became the current president of United Rotorcraft and has been bringing those efficient, best practices mentioned earlier to the MRO and completions sector. United Rotorcraft is going to especially need them if Alexandre’s vision for the future is realized. Remember that his first post-college job was for an artificial intelligence (AI) company. AI is basically the ability of machines and software to learn and adapt autonomously. Alexandre foresees AI affecting future critical flight missions, but not just these missions. “Amazing technology is coming that could improve an MRO shop,” he says. “There are already virtual or assisted wearable technology applications that provide instructions and decision-making aids on a shop technician’s goggles or headset. That same technology could one day be applied in the back of an aircraft, as an example, to aid in providing critical care to a patient in flight.”

According to Alexandre, the technology will change, but United Rotorcraft will remain focused on what really counts. “Our employees are truly focused on the guys and gals that fly and save lives, such as clinicians, medevac pilots and personnel, and firefighters. We take great pride in supporting those frontline heroes and like to think we contribute to their heroic work, even though we may be one or two steps removed from the front line.”

United Rotorcraft and its president may be slightly removed from the front line, but they remain on the cutting edge.

Single [R]evolution

AW09✱

Leonardo offers the largest range of rotorcraft capabilities to operators worldwide.

The AW09 is a next-generation, high performance, single-engine helicopter offering the built-in versatility to tackle multiple missions.

The AW09 is capable of carrying up to eight passengers, and features next-generation technology and safety, allowing operators to go further and do more.

Inspired by the vision, curiosity and creativity of the great master inventor - Leonardo is designing the technology of tomorrow.

Visit us at HAI HELI - EXPO, Stand 11454 - Hall F

leonardo.com

Helicopters | Aeronautics | Electronics, Defence & Security Systems | Space

 **LEONARDO**
HELICOPTERS



CHANGE

Transitioning from the military can be daunting to say the least. If you're still active duty and considering your transition, whether after five years or 25 years, you probably have a lot of questions swirling around in your head.

I made the leap about six years ago, but my process started about five years before that. I hope some of my experiences and observations can help you as you consider your future beyond the uniform.

I had no doubt I would leave the Coast Guard right at the 20-year mark, and started preparing accordingly. I did the easy stuff first: converted my logbook in accordance with FAA regulations, scheduled and earned my ATP certificate, used my GI Bill to get a multi-engine fixed-wing rating, and updated my LinkedIn profile to include a professional photograph. I started attending the Heli-Expo annually in order to network, meet people, and learn more about different careers within the helicopter industry. This last part was crucial to my success; learning about what was out there helped me narrow down

a few industries where I wanted to work.

One thing that helped keep me on track was coming up with a checklist, goals, and timelines. I was still active duty at a pretty busy job, but made sure I did at least one thing each week to help my transition.

I was fortunate that my supervisor was understanding and provided me with space to do these things (such as taking time off to go to Heli-Expo). I would suggest being open and honest about your goals, setting expectations with your current supervisor and coworkers to ensure they know that while you are still dedicated to your current job, it is vitally important for you to prepare for your (and maybe your family's) future.

The hard part about any military member's transition is the change. That is the key word: change. Every aspect of your life will change, and not just your life, but also your family's life.

The people I've watched navigate their transition with success were people who not only accepted this

change, but also embraced it with their families.

You will face possible changes in your location, finances, healthcare coverage, work schedules, people, and coworkers — even changes to your wardrobe. Your partner may be looking for a new job, and your kids looking at yet another new school.

All of this is driven by your own choices — not by an assignment officer — and that can be overwhelming. While you're busy with your checklist and preparations, don't forget to also check in with your partner and kids to see how they're managing with the upcoming change.

Here are a few important questions to discuss with your family. The following questions and observations will help you search for work that best fits your needs and preferences.

Where do you want to be? Is being near family important? Or is stabilizing the kids' school life a bigger factor? Is commuting long-distance an option in order to live in your preferred location?

How much money do you need to make? This is potentially different from what you want to make. Be sure to take taxes into consideration; you will no longer be protected from state income tax (if applicable) and all your income will now be taxable. Be especially sure to make some calculations if you start a job while still on terminal leave at retirement.

What kind of lifestyle do you want? Do you want a stable schedule, or can you tolerate uncertainty that often comes in the aviation industry?

Finally, don't forget the fun stuff! If you promised the family a big trip to Disney World when you retire, make sure to schedule it. Did your partner want to go to Europe for a month? Now is the time. Don't put it off, because once you do start a new job you won't have that 30 days of leave every year.

With a little effort, you can not only succeed in your transition, but enjoy the process.

About the author: Andrea Sacchetti retired from the U.S. Coast Guard in 2016 after 20 years, and is now a base lead pilot for REACH Air Medical Services flying the EC135. She regularly mentors transitioning military pilots and has been a speaker at a military-to-civilian transition seminar.



A TRADITION OF EXCELLENCE **REIMAGINED**

MD Helicopters, Inc. is gearing up to expand upon our long-standing tradition of excellence within the aerospace industry. With thousands of aircraft currently in service worldwide, MD aircraft are known for their safety, versatility, responsiveness, speed, and reliability. By combining our deep roots in aviation with our commitment to product sustainment and our forward-thinking vision, we are ready to usher in a new era of MD, delivering aircraft unmatched in their elegance, performance, and reliability. **See what's in store for the future of MD.**

MD
HELICOPTERS™

MDHELICOPTERS.COM



BALANCE

Balance is critical. It doesn't matter if it's related to the helicopters we fly and maintain, a person on a tightrope, or just managing our everyday lives. Maintaining balance is required if we are to continue to progress and minimize our limiting factors.

We can take anything to the excess and quickly get out of balance. That's why it is a good idea to have an accountability partner to help you see things that you may miss seeing yourself. The saying "You can't see the forest for the trees" is accurate, and sometimes briefly stepping away will clear one's focus.

The machines we fly and maintain are no different than our own bodies. When that helicopter comes to life, it has thousands of moving parts and pieces that must perform together in harmony with the purest of synchrony and balance. As the machine begins to breathe, gears begin to mesh, oil and hydraulic pumps begin to turn, drive shafts rotate, and rotor hubs spin the main and tail rotors. And let's not forget the engines themselves with hundreds of high-speed rotating components.

As the components rotate, they create a vibration. This frequency is measured in Hz, and the magnitude in inches per second. When compared to the established OEM parameters, we then have a predictive analytical tool that can predict or eliminate failure and maintain balance.

Historically, we are required to perform a rotor track and balance at specified intervals to maintain optimum balance and make corrections as needed. A rotating component that is out of balance can and will create low- or high-frequency vibrations that will unnecessarily cause the aircraft to be out of service and shorten the life of components.

I am encouraged to see the efficiency and accuracy of the latest HUMS devices. These units deliver real-time data on airframe and engine condition. They give the mechanic an additional tool to keep the aircraft in top condition and give the pilot greater peace of mind.

RMCI President and CEO Ken Speaks observes, "The new HUMS devices can diagnose problems with an astounding

rate of success. They have identified some emerging failures up to 100 hours before receiving a chip light."

As mechanics, we must keep ourselves in balance as well. A healthy diet and exercise can be difficult to fit into our day, so sometimes we just simply must step back, rest, and reassess our situation. Also, utilizing the essential tools of personal and professional development (discussed in last year's March/April column) will enhance balance in our life.

We use numbers to measure the health of our aircraft. We use numbers to measure our health. And we use numbers to measure our progress, or as a score against our goals. Jon Gordon said it best: "Numbers don't motivate people. Motivated people produce numbers. Then the numbers measure the progress."

As we begin 2022, remember: to do your best, you must be your best. Motivate, operate, and keep the faith — then we will see progress as we balance the weight.



About the author: Mark Tyler dedicated the majority of his career to serving the helicopter EMS community, from base mechanic to director of maintenance. As vice president and general manager of Precision Aircraft Services, Tyler now serves helicopter operators from many sectors including air ambulance, law enforcement, private owners, etc. When not at work, he can be found spending time with his family or sitting in a tree stand.



Around the **Clock**. Around the **Globe**. **Always Ready.**

Supporting the Rotorcraft Industry for More Than 50 Years.

Boeing's extensive experience and knowledge within the aviation industry provide the support you need to operate within the rotorcraft industry. We offer integrated solutions for global customers within the civil and military rotorcraft markets to support the helicopter lifecycle. In addition to OEM-certified new parts and spares, chemicals, digital tools and integrated supply chain services, Boeing also offers used, serviceable materials and rotatable parts for multiple rotorcraft platforms, including that of several leading OEM's.

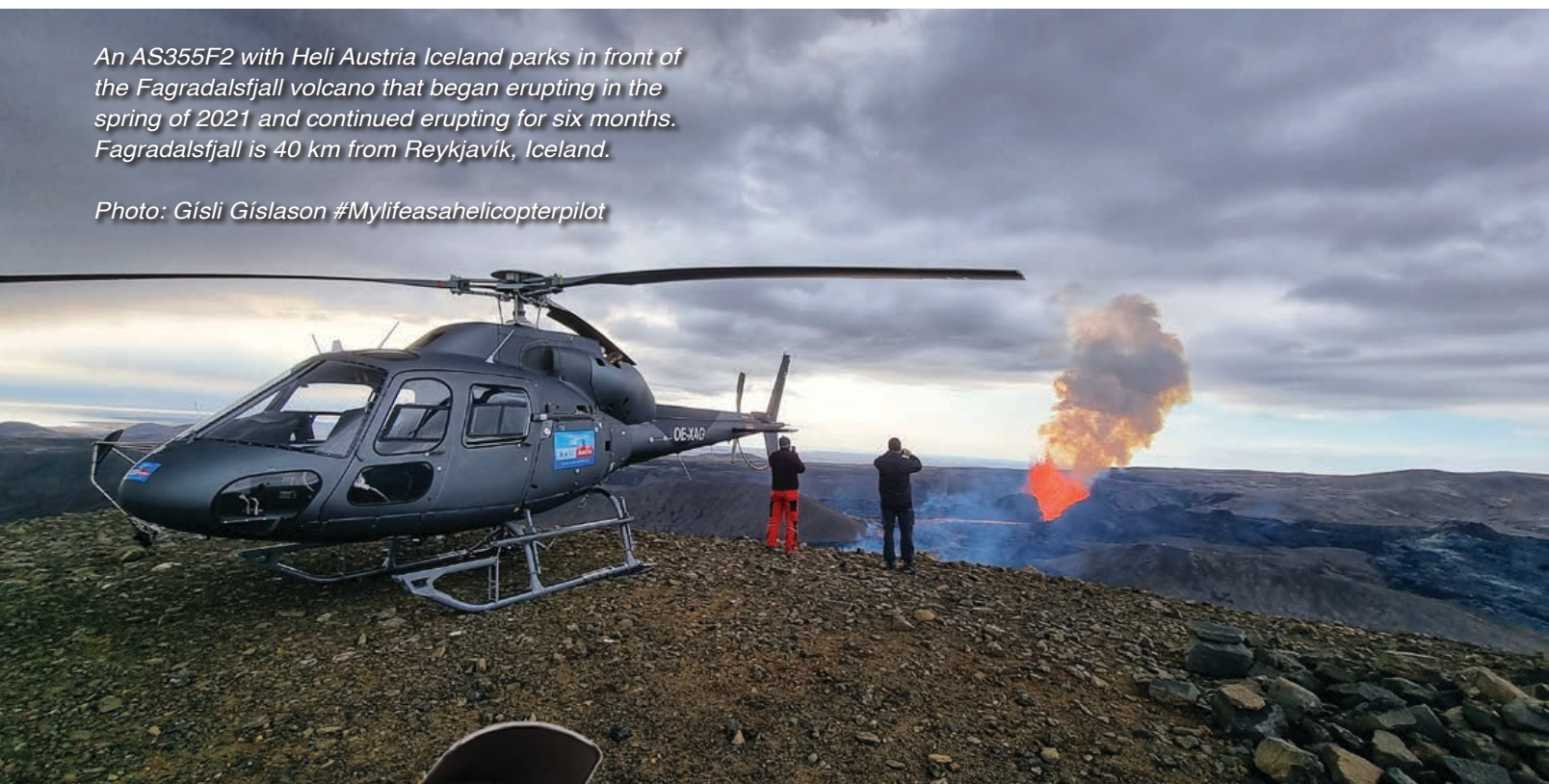
shop.boeing.com/aviation-supply/helicopter-support-solutions





"Going for a flight on a beautiful November day at Silverhawk Aviation Academy. As a veteran, there's no better way to spend Veterans Day than in the most American helicopter there is."

Quote and photo: Noah Kuhn IG: @Flyboiikuhn



An AS355F2 with Heli Austria Iceland parks in front of the Fagradalsfjall volcano that began erupting in the spring of 2021 and continued erupting for six months. Fagradalsfjall is 40 km from Reykjavik, Iceland.

Photo: Gísli Gíslason #Mylifeasahelicopterpilot



ROTORCRAFT PRO

HELPHOTOS

Submit your hi-res images with name, location, and what is going on to the Editor via email: lyn.burks@rotorcrafterpro.com

Flightcell® DZMx

Flightcell DZMx is the world's smallest and smartest satcom, and is highly configurable to your operational requirements.

- Satellite & cellular voice & data comms
- Tracking & operational event data
- Customizable to your requirements



Law Enforcement



Aerial Firefighting



Air Medical & SAR



Military

Trusted by:



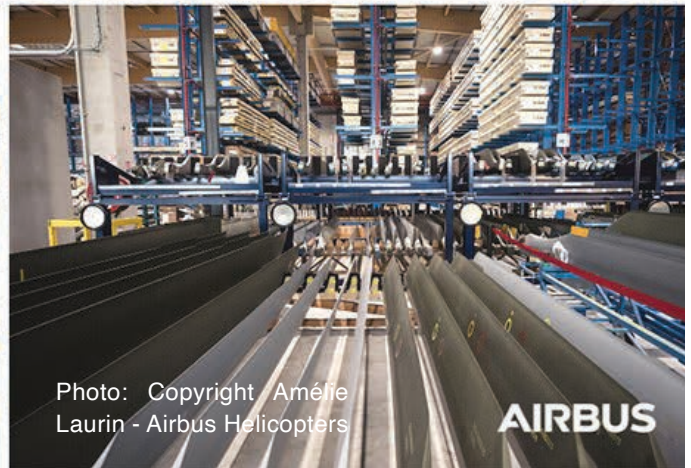


Photo: Copyright Amélie Laurin - Airbus Helicopters

AIRBUS

Airbus Helicopters Opens New MRO Logistics Center in Paris

The Airbus Helicopters MRO Logistics Center has begun operations in the AeroliansParis business park in Tremblay-en-France near Roissy Charles de Gaulle airport. The 13,400-square-meter (43,963 square feet) building, developed by BARJANE, was conceived to house all logistics activities related to helicopter component repair – including the receipt, screening, control, storage, and distribution of MRO parts – at one site close to Europe's cargo hub in Paris.

The site's proximity to Paris Charles de Gaulle airport and to the resources of aeronautical repair companies in the vicinity allows Airbus Helicopters and its logistics partner, Daher, to further improve services to the international customer base.

"The completion of this state-of-the-art MRO logistics facility supports our long-term ambition to put all our MRO logistics references under one roof, to optimize our flows, and to deliver a level of reactivity in line with customers' expectations," says Christoph Zammert, executive vice president of Customer Support & Service at Airbus Helicopters.

The Airbus Helicopters MRO Logistics Centre is poised to streamline service, ensuring the minimum aircraft downtime for

customers and more time in the air performing their essential missions. The site consists of 12,400 square meters (40,682 square feet) of logistics space and 1,000 square meters (3,281 square feet) of office space, and can stock 30,000 units. It will be staffed by 200 employees from Airbus and Daher, who will manage a volume of 200,000 incoming and outgoing flows annually.

The building was constructed in accordance with the BARJANE Green Building Charter, which aims to prevent pollution during the construction phase; more than 85% of the site's construction waste was recycled. In an effort to reduce water consumption, the site uses water-saving appliances and rainwater recovery tanks. Thanks to large window facades and the decompartmentalization of spaces with interior glass surfaces, the building maximizes natural light to create a comfortable working environment for employees.

The collaboration between Airbus Helicopters, BARJANE and Daher dates to 2011 with the building of a 46,500 m² industrial logistics facility on the Technoparc des Florides site in southern France, which has since become a reference for support and services platforms. This new building is set to become a similar example of excellence in aeronautical logistics MRO support activities.



PART 29 APPROVED

AEROLEDs™
STERLING
HELICOPTER



AeroLEDs, LLC Announces Part 29 FAA-STC Approval in Partnership with Sterling Helicopter

AeroLEDs, LLC recently announced FAA-STC approval for the SunSpot™ 36 and 46 Series LED landing and taxi lights on various Sikorsky models, adding to its already expansive list of FAA certifications.

This STC is available exclusively through Sterling Helicopter, enabling owners of rotorcraft covered under this STC to immediately upgrade to the highest-performing LED technology on the market today.

"These new LED lights far outperform what is currently offered on the Sikorsky S-76 series helicopters, increasing lamp life, night flight visibility and terrain awareness," said Edward Allen, director of engineering, Sterling Helicopter.

Many pilots worldwide have already benefited from this upgrade since AeroLEDs landing, taxi and recognition lighting products are already FAA and EASA approved for thousands of applications.

The SunSpot™ Series landing and taxi lights feature the same state-of-the art design and construction that has been the AeroLEDs hallmark for over 15 years — less drag, less

draw, more lumens output (total light output), and resistance to vibration and shock, making them unaffected by adverse environmental conditions. These attributes make the SunSpot ideal for use in experimental, certified, commercial, ARFF, and military aircraft.

"When we last reviewed LEDs four years ago, we recommended the AeroLEDs Sunspot as the top pick and we're repeating that advice," said the Aviation Consumer in 2019. "Also worth considering are the LED models that include flashing wig-wag functions. Always-on lamps greatly enhance daytime conspicuity and wig-wags help further."

Sunspot Series LED landing and taxi lights can be seen from up to 30 miles away and can be left on in all phases of flight because they draw 40% less power, significantly reducing the electrical load on the aircraft battery and alternator/generator system. They also maintain their full light output even at low engine RPM, which is critical for landing configuration. These LEDs do not interfere with NVG equipment and are available with integrated pulse for optimum visibility during extreme operating conditions, negating the need and extra weight/cost of external pulse light boxes.



Bell Boeing Improve Maintainability of V-22

Bell recently completed the first Nacelle Improvements modification on an Air Force CV-22 Osprey. The aircraft is part of an ongoing upgrade by Bell and Boeing to improve the wiring components within the nacelles and to change the structure in order to improve maintainability. The Osprey returned to the 20th Special Operations Squadron at Cannon Air Force Base on Dec. 13, 2021.

The V-22 nacelles house critical power components to the V-22's vertical takeoff and landing capabilities and transition to forward flight. This program benefits the V-22 fleet maintainers and operators by reducing maintenance time and costs while simultaneously enhancing flying readiness rates.

Bell completed the modifications at the Amarillo Assembly Center (AAC), which actively produces new V-22s for the Department of Defense. The AAC employs more than 500 employees to manufacture new and modify existing military aircraft. Completing nacelle improvements at the AAC utilizes Bell artisans with the most experience removing and replacing nacelles.

"Speed, range, and versatility have always been fundamental to the Osprey, and that includes speed of maintenance," said Kurt Fuller, V-22 program director and Bell vice president. "The incorporated nacelle improvements help ensure the Osprey continues to outpace adversaries both operationally and sustainably."

The V-22 Osprey regularly performs missions that would typically require both fixed-wing and rotary-wing, reducing the overall logistics and maintenance footprint for operations. The CV-22 is a special operation variant of the Osprey that regularly operates in high-demand environments, including long-range infiltration and exfiltration missions. The Marine Corps and Navy have also cited interest in nacelle improvements for the MV-22 and CMV-22B variants.

"The capabilities of the V-22 today are unmatched," said Shane Openshaw, V-22 deputy director and Boeing vice president. "These nacelle upgrades help ensure the Osprey remains a highly capable and reliable aircraft supporting our customers' missions for many years to come."

Bell Boeing completed the first aircraft in December 2021 and is underway with the second CV-22.

GROWING TO SERVE YOU BETTER

Your source for comprehensive, tip-to-tail
aftermarket support

VISIT US AT
HAI 2022
BOOTH
#2417



ENGINES

- GE T700/CT7
- Pratt & Whitney Canada PT6T
- Rolls-Royce M250 & RR300
- Safran Arriel 1 & 2

AIRFRAMES

- Airbus H120/EC120, H125/AS350, AS355, EC135, H130/EC130, H215/AS332
- Bell B204/205, B206, B212/412, B427, UH-1 series
- Sikorsky S-76 & S-61

DYNAMIC COMPONENTS

- Airbus H125/AS350, H130/EC130, AS355

FUEL SYSTEMS

- CRFT

AVIONICS

- AutoPilot
- ADS-B
- Glass cockpit
- STC's & Modifications



CONTACT US

www.StandardAero.com/Heli
Helicopters@StandardAero.com
Call 1.204.318.7354


StandardAero

SAFETY DRIVEN | INNOVATIVE | **FULL SERVICE** | RELIABLE

 **DallasAirmotive
H+SAviation**
StandardAero Companies



Leonardo and the Italian Secretariat General of Defense Sign AW169M LUH Helicopter Acquisition Contract for Austria

Leonardo and the Directorate for Air Armaments and Airworthiness of the Italian Secretariat General of Defense/National Armaments Directorate recently signed an acquisition contract for the supply of AW169M light utility helicopters (LUH) to the Austrian Ministry of Defence. The contract, valued at €346 million Euro (\$396 million USD), was signed in the framework of the Italy-Austria Government-to-Government (G2G) Agreement. It is aimed at reinforcing the bilateral collaboration between the two countries and establishing a strategic partnership in the rotorcraft sector, with Austria looking at Italy and the AW169M LUH program for the replacement of its aging fleet of Alouette III aircraft, which have been in service since the 1960s.

The program envisages the delivery from Leonardo's Vergiate final assembly plant (Northern Italy) of 18 helicopters (six AW169 in the 'B' variant, 12 in the 'MA' advanced multirole variant with integrated mission equipment and weapon systems) plus a comprehensive and customized support and training package. The helicopters will be able to carry out a wide range of missions supporting Austrian defense requirements and government services, such as troop transport, combat operations, disaster relief and emergency response, firefighting, mountain rescue, and MEDEVAC. The first AW169M LUH is expected to be delivered before year end, and all helicopter deliveries are expected to be completed by 2026. The contract also includes options for a further 18 helicopters. Austrian crews will leverage initial training delivered with the support of the Italian Army and

its expertise as an AW169M LUH operator, and will also benefit from the supply of dedicated training and simulation devices.

This signing marks the latest step thanks to the preliminary G2G document, which was signed by Italian Minister of Defense Lorenzo Guerini and the Austrian Minister of Defense Klaudia Tanner on Dec. 2, 2021. Guerini said, "We're happy with this result, which brings a new phase of collaboration on procurement. It demonstrates the quality of Italian technology and products through international recognition. We really believe G2G is a highly effective industrial policy tool and a smart formula to support exports."

Alessandro Profumo, CEO of Leonardo, said, "We welcome the completion of the contractual phase of the G2G initiative between Italy and Austria with this latest step, which allows us to provide our contribution to supply the most technologically advanced and cost-effective solution to meet the stringent requirement set by the collaboration between the two governments. We look forward to being an active part in the delivery of this important program."

Gian Piero Cutillo, managing director of Leonardo Helicopters, said, "This contract is further testament to the superior performance, unmatched latest-generation capabilities, and the complete support and training solutions of the AW169M to perform true multirole operations, meeting the most demanding needs of operators and their personnel's effectiveness and safety. The type will ensure a significant leap forward for national defense and emergency response in Austria."

VISIT US AT HELI-EXPO 2022

BOOTH #7722

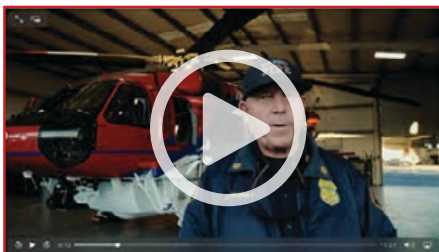
Aerometals

PROTECT & SERVE

**You Can't Control the Elements.
But You Can Protect Against Them.**



**See what the industry
is saying about us.**



Play Video >



FAA Certified

OUR INLET BARRIER FILTER

is the most efficient product
on the market today.

[LEARN MORE - DOWNLOAD BROCHURE](#)



FAA Issues Certificate Of Airworthiness For The First Type Certified S-70M™ Black Hawk® Helicopter

The Federal Aviation Administration (FAA) has completed its certification of the S-70M Black Hawk helicopter — a new type designation — by issuing Sikorsky, a Lockheed Martin company, a Restricted Category Special Airworthiness Certificate. FAA certification and the establishment of a pilot type rating are expected to broaden the market for the military-designed helicopter by allowing civil and commercial operators in the United States to purchase new Black Hawk aircraft direct from the factory.

“With type certification, new production S-70M Black Hawk helicopters in the latest configuration are available to the U.S. commercial/civil market for the first time,” said Jason Lambert, vice president of Sikorsky Global Commercial & Military Systems. “Internationally, where the FAA restricted category is not widely accepted, we can now discuss with other civil aviation authorities the potential of validating the aircraft for challenging civil operations in their countries’ airspace.

“We thank the FAA for its rigorous evaluation of the first S-70M aircraft, and FlightSafety International for its partnership to upgrade an S-70i™ flight simulator and training curriculum to S-70M FAA standards,” he continued. “We also congratulate and welcome our first S-70M customer, San Diego Gas & Electric, which requires the rugged design and lift capacity of the Black Hawk helicopter to perform their demanding aerial firefighting mission.”

First customer delivery

California public utility San Diego Gas & Electric (SDG&E) took delivery of the first S-70M Restricted Category aircraft on Nov. 18 at the Sikorsky Training Academy in Stuart, Florida. SDG&E will modify the aircraft to the [Firehawk®](#) configuration at United Rotorcraft, a division of Air Methods in Colorado. By 2023, the aircraft will be ready to drop water onto wildland fires with high accuracy from its 3,785-liter (1,000-gallon) external tank.

FlightSafety was instrumental to certification effort

“As Sikorsky’s authorized S-70 Black Hawk training partner, FlightSafety sees how important the S-70M model will be to the global helicopter market,” said David Harper, center manager, FlightSafety Learning Center in West Palm Beach, Florida. “We invested heavily to develop an all-new S-70M pilot training curriculum with advanced courseware, and upgrade our flight simulator to a full-motion Level-D capability. Work is underway with the FAA to gain Part 142 approval for our training course. FlightSafety is excited that pilots requiring S-70M initial type rating or an Airline Transport Pilot upgrade will soon be able to get those ratings at our facility in West Palm Beach.”

Journey to FAA certification

Sikorsky received a type certificate for the S-70M aircraft from the FAA in February 2019, and produced the first-of-type aircraft a year later. During 2020-21, Sikorsky proved the aircraft conformed to the type design, and assisted the FAA in establishing the new type rating.

The FAA certified the S-70M aircraft under Part 21 of the U.S. Code of Federal Regulations in the Restricted Category, basing its certification on the U.S. Army UH-60M Black Hawk helicopter. Although capable of several special purpose operations in the Restricted Category, Sikorsky requested approval for three: (1) Agricultural operations; (2) External Cargo, which allows usage of the aircraft’s 4,082 kg (9,000 lbs.) external lift cargo hook; and (3) Forest and Wildlife Conservation, which includes the dispensing of liquids on wildfires.

PZL Mielec, a Lockheed Martin company, will build S-70M aircraft conforming to the FAA Restricted Category Special Airworthiness Certificate in Poland. Like the S-70i™ aircraft, the S-70M is a third-generation Black Hawk helicopter featuring a digital cockpit, GE 701D engines, and wide chord rotor blades for increased levels of safety, performance, maneuverability, and situational awareness.



Aviation Specialties Unlimited Opens A&P Preparation Course in Boise

Aviation Specialties Unlimited Inc. (ASU) recently launched a new airframe & powerplant (A&P) preparation course to help students prepare and test for their FAA Certification.

ASU's new accelerated program is located at the new ASU Academy near the Boise Airport at 3559 W. Wright St., Boise, Idaho. The three-week course is designed for aircraft mechanics who meet the eligibility requirements to prepare them to pass the A&P written, oral, and practical exams and earn their FAA certificate.

Registration is open for courses in February and after. The ASU Academy course is recognized by the U.S. Army and Air Force Credentialing Opportunities Online (COOL) programs. This is a significant benefit to service members who may be transitioning to the civilian aviation industry.

"Our industry is experiencing a significant shortage of mechanics," said Mike Atwood. "There are many apprentices, mechanics, and members of the military transitioning into the civilian workforce with years of experience, but they need the certifications to further their careers as A&P mechanics. We are in the heart of an aviation hub in the Pacific Northwest. We felt the time was now to launch this school to help our industry recruit new workers to fill a void."

This structured course assumes that students have the requisite experience and knowledge base to earn an FAA certificate. It is not a Part 147 school designed to train students to be fully FAA certified mechanics. ASU has designed the course to build on students' previous knowledge and experience and enhance preparation for the General, Airframe, and Powerplant written, oral, and practical exams. The ASU staff will guide students to study and give them the tools and resources needed to succeed. Instruction will focus on subject areas that tend to challenge candidates on the exams. ASU's staff will dedicate time to help any particular areas that are challenging students.

"ASU's school will help skilled, driven mechanics secure good jobs and earn better pay," said ASU Director of Aviation Services Chris Schoonover. "This is a great program for military mechanics transitioning to the civil workforce, and for experienced mechanics or repairmen wanting to advance their career in the aviation industry. The average salary of an A&P mechanic, depending on location and experience, is \$70,000 to \$90,000. With the current job environment and demand, graduates can have a great opportunity for a long and successful career."

The ideal candidate for this course must meet 14 CFR part 65.77 requirements before enrolling. This includes at least 18 months of practical experience maintaining or altering airframes, or powerplants appropriate to the rating sought, or at least 30 months of practical experience concurrently performing the duties appropriate to both the airframe and powerplant ratings.



Scott Tennesand Receives HAI's Salute to Excellence W.A. "Dub" Blessing Flight Instructor of the Year Award

Helicopter Association International (HAI) recently announced Scott Tennesand is the recipient of the Salute to Excellence W.A. "Dub" Blessing Flight Instructor of the Year Award. This award, presented by H. Ross Perot and family, recognizes

superlative contributions by a helicopter or UAS flight instructor in upholding high standards of professionalism. It will be presented Monday, March 7, at HAI Heli-Expo 2022 in Dallas.

Flight instructor and experimental test pilot Scott Tennesand got to where he is today thanks to mentors who supported him along his journey. A pilot with 33 accident-free years of flying experience, he is dedicated to giving back whenever possible.

Tennesand remembers wanting to be a pilot, but questioning the feasibility of achieving his dream. When he discovered the U.S. Army ROTC program at the University of North Dakota (UND), the dream became possible. He enrolled at UND with the ROTC program, earning his private, commercial, and instrument helicopter ratings. Upon graduation, he attended Army flight school to become an AH-1 Cobra and AH-64 Apache pilot.

After eight years of service, ending with the Army's 101st Airborne Division, he entered the civilian world as an instructor pilot and test pilot for the gyroplane manufacturer Groen Brothers Aviation. Tennesand thrived at Groen, gaining gyroplane commercial and instructor ratings. He was mentored by coworker and fellow pilot Terry Brandt. Not only did Tennesand have the opportunity at Groen to teach customers to fly, but he was also able to mentor them in their careers.

After leaving Groen, Tennesand took a helicopter EMS position that grew into an opportunity to earn his helicopter CFI and to mentor, train, and support his fellow company pilots. Then, in 2011, he landed what has been his dream job.

Today, Tennesand is a lead flight instructor and experimental test pilot for The Boeing Co.'s Vertical Lift division. He trains domestic and international pilots, and conducts experimental test flights in the AH-64E Apache, A/MH-6M, and AH-6 Little Bird.

Other 2022 HAI Salute to Excellence Award Winners include:

- Pilot of the Year: Lieutenant Commander Travis Christy, United States Coast Guard
- Lifetime Achievement: Dwayne Williams, Aero Dynamix
- Humanitarian Service: MD Helicopters
- Airborne Law Enforcement: Sergeant Matt Rogers, Michigan State Police
- Safety: United States Coast Guard Air Station Cape Cod
- Golden Hour: Neonatal/Pediatric Transport Team, Children's Health, Dallas
- Maintenance: Jeffrey Donnell, Panther Helicopters
- Communications: Georgina Hunter-Jones, Helicopter Life
- Matthew S Zuccaro Land & Live: Andrew Champagne, avionics electrical technician second class, U.S. Coast Guard



Defiant Executes FLRAA Mission Profile with Unsurpassed Speed, Maneuverability and Agility in High-Speed, Low-Level Operations and Confined Area Landings

The Lockheed Martin Sikorsky-Boeing SB>1 Defiant® successfully completed FLRAA mission profile test flights, including confined area landings and low-level flight operations. These flights validate Defiant's relevancy to the Army's mission, providing agility at the objective (also known as the "X"), and increased survivability, all while reducing pilot workload. View the video of the latest flight testing.

"We fully demonstrated Defiant's ability to execute the FLRAA mission profile by flying 236 knots in level flight, then reducing thrust on the propulsor to rapidly decelerate as we approached the confined and unimproved landing zone," said Bill Fell, Defiant chief flight test pilot at Sikorsky and a retired U.S. Army Master aviator. "This type of level-body deceleration allowed us to maintain situational awareness and view the landing zone throughout the approach and landing without the typical nose-up helicopter deceleration. This confined area was extremely tight, requiring us to delay descent until nearly over the landing spot, followed by a near-vertical drop. We landed Defiant precisely on the objective with little effort as we descended into this narrow hole while maintaining clearance on all sides."

SB>1 Defiant is the technology demonstrator proving out transformational capabilities for the Defiant X weapon system, the Sikorsky-Boeing team offering for the U.S. Army's Future Long-Range Assault Aircraft (FLRAA) competition as part of the Army's Future Vertical Lift program. Defiant X will enable crews to fly low and fast through complex terrain, where Army aviators spend most of their time. It will extend capabilities of Army Aviation on the modern battlefield – and is designed to fit in the same footprint as a Black Hawk. With Defiant X, the U.S. Army will deliver troops and cargo in future combat at twice the range of the current fleet.

"It's what we call building combat power rapidly, and aircraft like the Defiant X can do that," said Tony Crutchfield, retired U.S. Army Lieutenant General and now vice president of Army

Systems at Boeing. "In the Pacific, it's even more important because your lines of operation are going to be dispersed over a wide area; you're going to have these small bases and supply lines that'll be positioned either on ships or on islands. You're going to want to move more assets, maneuver in confined terrain and survive to build that combat power faster than your adversary can, so you can win."

Defiant X incorporates Sikorsky X2™ Technology to operate at high speeds while maintaining low-speed handling qualities. This critical capability provides pilots with increased maneuverability and survivability in high-threat environments, allowing them to penetrate enemy defenses while reducing exposure to enemy fire. Defiant X's X2 coaxial rotor system and pusher prop allows for a high degree of maneuverability in and around the objective, which is also directly linked to survivability.

Defiant achievements include:

- Greater than 60-degree banked turns.
- Demonstrating mission-relevant cargo capacity by lifting a 5,300-pound guided multiple launch rocket system external load.
- Exceeding 245 knots in level flight.
- Demonstrated Level 1 low-speed agility with fly-by-wire controls.
- Integration of U.S. Army test pilots into the Defiant program.
- Based on Collier award-winning X2 technology.

Simple flight data today, for a safer tomorrow.

Know exactly *where* your aircraft are flying, and *how* they are being flown. Put your trust in a provider who helps teams around the world get home safely every day with Spidertracks.

spidertracks



GPMS Adds Bell Leader as Vice President of Marketing

GPMS recently announced that Ronnie Ries has joined the company as its vice president of marketing. In this position, Ries will help develop and promote the Foresight MX HUMS solution to operators of helicopters from Bell, Airbus, Russian Helicopter, and MD Helicopters. Ries brings nearly two decades of experience as a marketing leader in the rotorcraft industry to GPMS, including time as chair of the Transportation Research Board Civil Helicopter Subcommittee. Most recently, he led Bell's Commercial Marketing and Customer Experience organization, overseeing the marketing of aircraft, aftermarket services, and the expansion of its customer portal. Additionally, Ries was responsible for the marketing of Aeronautical Accessories, an affiliate of Bell and distributor of the Bell 407 HUMS Foresight MX, as well as managing relationships with various suppliers and engine OEMs to support aftermarket growth opportunities.

Jed Kalkstein, GPMS's president, said, "With Ronnie's knowledge and relationships, we look forward to engaging with our customers to prove how increased adoption of HUMS in light aircraft increases operator safety and lowers their direct operating costs in the process."

GPMS' Foresight MX system is 90% lighter and seven times more accurate than traditional rotorcraft monitoring systems and adds a predictive remaining useful life capability critical to asset optimization. Foresight MX has now been certified on the Bell 407GX/GXP/GXi, Bell 429, Bell 212, Bell 412, Airbus H125, and Mi-8/17/171 series with thousands of hours of accrued tracking. Upcoming certifications for the platform include the Bell 407 Analog, Airbus H135, and MD530.

Ries is a graduate of TCU and Texas A&M University-Kingsville and lives in Fort Worth, Texas with his wife and numerous biological, adopted, and foster children.



Helicentre Aviation Purchases Entrol AW109 SP FNPT II MCC Simulator

Helicentre Aviation Academy recently became Entrol's first U.K. customer, signing a purchase order for an H19 / AW109 SP FNPT II MCC simulator.

Early last year, following 20 successful years specializing in ab-initio to professional pilot training, Helicentre Aviation obtained CAA approval for the multi-engine instrument rating alongside the purchase of its first Leonardo AW109.

Less than a year later, demand is growing as graduates of the academy's instrument-rating courses are successfully gaining employment into multi-crew roles. This provides newly qualified pilots with career pathways straight out of training, predominantly into the offshore sector.

The addition of this simulator enhances training capabilities, providing students with a more seamless transition to the aircraft and allowing the ATO to expand into the delivery of additional courses such as MCC. "We are committed to investing in innovation and technology so we can continue to offer the best and most up-to-date simulation experience to our trainee helicopter pilots," comments Sarah Bowen, Helicentre Aviation's head of training and director of business development.

To further enhance the training experience, the simulator has been ordered with additional features including a vibration system, instructor debriefing station, cylindrical visual system with an extended vertical field of view, and IOS remote control.

The purchase represents a key milestone for Entrol, as its first simulator to be installed and certified in the United Kingdom.



@temscohelicopters flying in Alaska

KEEP YOUR FLEET UP AND RUNNING

Fleet operators know that a grounded aircraft costs money and degrades service levels. Fortunately, Avidyne's WAAS-capable IFD Series for helicopters is designed to not only keep your fleet up and running, but operating with technology that will last for years to come.



IFD550/545



IFD540/510



IFD440/410

- Synthetic Vision with 3D terrain, obstacles and traffic
- IFD100 iPad™ App: Big Glass for your cockpit
- Glove-friendly touchscreen plus knobs & buttons
- Built in WiFi/Bluetooth®

Direct Slide-in Replacement

Replace your old GNS navigator with an Avidyne IFD GPS/NAV/COM in as little as 15 minutes!
Save on install time and costs! For more information visit avidyne.com/heli.

AVIDYNE®
avidyne.com/heli



Life Flight Network to Add Helicopter Critical Care Transport Base to Coeur d'Alene, Idaho

Life Flight Network recently announced the addition of a helicopter critical care transport base in Coeur d'Alene, Idaho. This new service will augment existing helicopter and fixed-wing services in north-central Idaho, eastern Washington, and western Montana. The new helicopter base, slated to open this spring, will serve as a stand-alone base of operations with dedicated pilots, mechanics, nurses, and paramedics.

"With the rapidly increasing population in this region, there has been a greater demand for our services, and we are always listening for feedback from the communities we serve. By placing an additional helicopter in the North Idaho region, we will have increased capacity to support the area's growing population and their critical medical transport needs," said Dominic Pomponio, Vice President, Life Flight Network.

The addition of a helicopter base in Coeur d'Alene will allow for an even faster response time to the surrounding communities, supplementing the coverage provided by bases in Spokane and Pullman, Washington, and Sandpoint and Lewiston, Idaho.

"We are excited about Life Flight Network adding an additional lifesaving resource to Kootenai County. We have long enjoyed a great relationship with Life Flight Network, and value their ability to transport our most critically ill and injured patients to a hospital when time is of the essence. Today's news is one more example of how valuable a partnership like this is to the

patients we serve," said Christopher Way, fire chief, Kootenai County Fire & Rescue.

Along with the aircraft's state-of-the-art medical interior, the combined efforts of a flight registered nurse and flight paramedic enable Life Flight Network crews to operate a mobile intensive care unit with the ability to perform a multitude of highly skilled medical functions during transport, including video laryngoscopes, ICU-level ventilators, and emergency blood transfusions.

"Providing the highest-level clinical care is important to all of us at Life Flight Network as we live, work, and play in the region alongside the patients we serve. The addition of the helicopter base in Coeur d'Alene will undoubtedly save lives by providing patients a faster response when time is of the essence," said Casey Seckel, chief clinical officer, Life Flight Network.

The helicopter based in Coeur d'Alene will be an AgustaWestland AW119Kx 'Koala,' providing safe, reliable, and efficient rotor-wing transport and the highest productivity levels among single-engine helicopters. Equipped with a state-of-the-art Garmin G-1000H cockpit, it provides excellent situational awareness to the pilot. The aircraft is spacious with the capacity to transport two patients or a specialty team with unencumbered full-body access while cruising at an impressive speed of 166 miles per hour. Life Flight Network is the largest operator of the medically equipped AW119Kx in the United States, with 21 operating across Oregon, Washington, Idaho, and Montana.



GO BEYOND

HELICOPTER AVIATION

SUPERIOR PERFORMANCE. FOR A HIGHER PURPOSE.

POWERING HELICOPTERS TO RISE ABOVE —
AND ANSWER ANY CALL.

From firefighting to law enforcement to peacekeeping duties,
Pratt & Whitney's industry-leading engines provide the power, speed
and reliability to meet your objectives — and serve the greater good.

ELEVATE YOUR MISSION AT PRATTWHITNEY.COM/HELICOPTERS





Aviation Specialties Unlimited Receives Seven Seals Award

Aviation Specialties Unlimited (ASU) recently announced the company was given the Seven Seals Award from the Employer Support of Guard and Reserve (ESGR), for the company's efforts to support ASU employees in the National Guard and Reserves.

ASU Director of Aviation Services Chris Schoonover also received the ESGR Patriot Award. The Patriot Award reflects the efforts made to support citizen warriors through a wide range of measures including flexible schedules, time off prior to and after deployment, caring for families, and granting leaves of absence if needed.

Both the Seven Seals Award and Patriot Award are given by the Office of the Secretary of Defense for the United States.

Both awards were presented by representatives of the National Guard. ASU Owners Mike and Chris Atwood received the Seven Seals Award on behalf of ASU.

"This is a tremendous honor to receive," said ASU Founder Mike Atwood, an Army veteran himself. "We love our country and the men and women that work at ASU know that supporting our nation, our troops and our National Guard members is an integral part of ASU. In fact, more than 40% of ASU's workforce have served or are currently serving in the United States military."

Schoonover is an Afghanistan veteran and former AH-64D battalion commander. He retired in 2019 as a lieutenant colonel from his full-time position in the Idaho Army National Guard. Schoonover was nominated for the Patriot Award by ASU Senior

NVG Instructor Pilot K Kirkendall, who is a standardization pilot for A/1-183rd.

"ASU greatly values veterans' service, and one of the first things that you see when you come into the building is the Armed Forces Wall of Honor," said Kirkendall. "ASU has honored the service of its veterans by displaying individual photos with their branch of service and dates to celebrate their service to this great country. They also value the experience our veterans have gained through their service in the armed forces."

"It would be difficult to describe the amount of time it takes to manage the responsibilities this position requires, but I am consistently communicating with my commander and pilots to ensure that we are prepared to deploy in support of combat operations. I also spend many nights training and evaluating our pilots, and ASU allows me the flexibility to manipulate my schedule to ensure that I can satisfy military crew rest requirements. ASU has supported me in my service to the National Guard even when it wasn't convenient or easy. They are a stellar organization that deserves recognition for their patriotism and service to our veterans," added Kirkendall.

ASU Vice President of Sales and Marketing Chad St. Francis is also a retired 22-year veteran of the United States Army.

"Supporting our military is in the very fabric of our DNA at ASU," said St. Francis. "We are extremely honored to receive the award and to employ so many great men and women that serve and have served our nation. ASU's mission is to help save lives. Our National Guard members are ready to do that every day. That is why we will continue to support the ESGR mission not only in the United States, but around the world."



Leading Edge Aviation Launches Aerial Tour Options for Central Oregon

Leading Edge Aviation recently announced a new division which brings Central Oregon aerial tour options to visitors and locals alike. Effective immediately, Leading Edge will book helicopter tours and charters focusing on Central Oregon's landscape highlights.

Leading Edge Aviation has been a long-time Bend, Oregon, business, passionate about customer experience and the beauty and diversity of Central Oregon.

The creation of the tour outlet will bring customers a heightened level of satisfaction from start to finish, as the process from booking to touchdown will be seamless and professional.

"We put professionalism and safety above all else," says Brad Fraley, president of Leading Edge Aviation. "Leading Edge truly values being a part of the Bend (Oregon) community and that's what inspired us to create this tour outlet. It's all about appreciating the landscape and the history of Central Oregon in a whole new way."

IS YOUR MAINTENANCE PROGRAM
STILL STUCK IN THE 1940s?



THERE IS A
BETTER WAY!



WELCOME TO THE 21ST CENTURY

WE'VE CHANGED THE WAY MAINTENANCE IS PERFORMED! VISIT HELI.LADDER.COM
SEE OUR MODERN MAINTENANCE STAND AT HELI-EXPO '22 BOOTH #10744



Malaysia MD 530G Initial Acceptance Training Complete

MD Helicopters Inc. recently announced the initial acceptance of six MD 530G light scout attack helicopters for the Malaysia Ministry of Defense via their agent Halaman Optima/ Destini Prima. The aircraft are now in transit to Malaysia for final acceptance and expected to arrive in-country by the end of the first quarter of 2022. As part of the contract, eight pilots and nine mechanics from the 881st Regiment of Malaysia Army Aviation have completed forward arming and refueling point (FARP) operations training in West Texas.

Destini Prima's Senior Vice President, Ek Sing Nguong, Lt. Col. RMAF (Retired) said, "We are very pleased to accept the delivery of this outstanding aircraft at MD Helicopters on behalf of the Malaysian Ministry of Defense. It is with great excitement that we are able to take this program to the next stage. We look forward to the equipment's arrival in Kuala Lumpur to complete the in-country final acceptance training."

The 530G is the latest in a long line of light attack helicopter configurations based on the Model 500/530 airframe. The 530G for Malaysia continues to raise the bar on performance with the integration of the Wescam L3 MX10D sensor and the Pathfinder Ares Weapons Management System from Tek Fusion. These integrated systems are used to support the Dillion M134 mini gun, FN Herstal heavy machine gun and Rocket machine gun pods, and 2.75-inch folding-fin aerial rockets (guided and unguided). The aircraft provides overwhelming close-in support night or day, as well as outstanding reconnaissance capability.

MDHI Vice President of Programs Duncan Koerbel noted, "The 530G continues to build on the outstanding history of the MDHI light scout attack platform. This aircraft brings the best value and performance in its class. Hands down. It is easy to maintain, incredibly agile, and with over 27 million flight hours, mission ready. MDHI is pleased to be a part of helping the Malaysian government provide land and maritime security."

BY THE NUMBERS

2

The approximate percentage of aviation pilots who are African American. The Luke Weathers Flight Academy at the airport in Olive Branch, Mississippi, in coordination with the Organization of Black Aerospace Professionals, is working to increase that number by offering aid and training to aspiring aviation professionals. Learn more: obap.org/lwfa/

94

The years of experience that airport manager and operator Avports brings to a new alliance with electric vertical takeoff and landing (eVTOL) aircraft manufacturer Jaunt Air Mobility. The alliance plans to support the integration of eVTOL aircraft with airports and the aviation ecosystem.

0

The cost for anyone to attend the Experimental Aircraft Association's (EAA) Virtual Ultralight Days webinars. The 15 webinars are held Feb. 22-24, and archived presentations are available to members. Visit www.eaa.org.

GPMS
Foresight **MX**



See us at HeliExpo 2022 Booth 6508

Futureproof Your Fleet

- HUMS, FDM, RTB & Beyond
- Global Fleet Health Visibility – Anywhere, Anytime
- Meet Upcoming Contract Requirements
- Reduce Unnecessary Removals, Failures & RTB Flights
- Enhance Safety and Upgrade Your FOQA / SMS Program

CERTIFIED MODELS

BELL 407 | BELL 429 | BELL 412 / 212 | H125 / AS350 B3 | MI-8 SERIES | MD530

COMING SOON

AS350 B2 | H135 | UH-60A | & MORE

gpms-vt.com | +1.888.239.4466 | info@gpms-vt.com



FRASCA
FLIGHT SIMULATION

FRASCA Has Joined Forces with FlightSafety International

FRASCA recently announced that it has joined forces with FlightSafety International based in Columbus, Ohio. This acquisition will better allow each company to increase its ability to prepare aviators through scalable and integrated product lines, increased innovation, and expanded expertise in the training and simulation market. From universities and trade schools to professional flight departments, commercial airlines, cargo operators, and government, including military flight operations, FlightSafety and FRASCA will offer a suite of complementary training devices that will help develop the most prepared aviators in the world.

This partnership is a great fit since both companies were started by passionate aviators and together, they have more than 130 years of history advancing aviation safety. This relationship goes back six decades to a friendship between Frasca founder Rudy Frasca and FlightSafety founder Al Ueltschi.

The Frasca company name and leadership will remain the same, and customers will still work with the same Frasca contacts and employees.

Through the partnership, both companies will have an increase in the ability to prepare aviators through scalable and integrated product lines, increased innovation, and expanded expertise in the training and simulation market.

25

The consistent, annual busiest-in-nation ranking of tiny Grand Forks International Airport (GFK). With the very active University of North Dakota pilot training program, GFK consistently ranks among the nation's top 25 busiest airports in takeoffs and landings. In March 2021, it even vaulted to #1 in the nation.

19

The age of Jack Sweeney, who was offered \$5,000 to stop tracking billionaire Elon Musk's private jet, a 2015 Gulfstream G650 (N628TS). The teen runs a Twitter account that tracks specific jets, including those of famous people like Jeff Bezos, Bill Gates, and Musk. Tracking bots obtain public data from the ADS-B network and the FAA's database, aggregating the information to form Sweeney's Twitter page @ElonJet. Musk private messaged the college freshman on the platform, saying, "I don't love the idea of being shot by a nutcase."

3,100

The number of stores in the Domino's Pizza global empire. Apparently, that's not enough coverage because the pizza delivery giant has joined forces with Flirtey Inc. (SkyDrop) to launch a second stage of drone delivery trials in New Zealand from ovens to customers' homes. The drone delivery company claims its new UAVs are able to conduct deliveries that are speedier, safer, quieter, cheaper, and greener. Yes, but will the pizza be hotter?





Elroy Air Unveils “Chaparral,” a First-of-Kind, Autonomous, Hybrid-Electric VTOL Cargo Aircraft

Elroy Air recently unveiled its preproduction Chaparral aircraft. The Chaparral can autonomously pick up 300-500 pounds of cargo and deliver it by air up to 300 miles, a capability that pushes beyond the limited payload capabilities of delivery drones and the airport infrastructure required of piloted air cargo options available today.

“Today, we are proud to unveil the Chaparral, a first-of-kind autonomous air cargo system that builds on the more than 100 years of American aviation and aircraft development history,” said Elroy Air Co-founder and CEO David Merrill. “The Chaparral is an important part of the future of express logistics. It is built for full end-to-end automation, and it will safely and efficiently make express shipping possible in thousands of new places. It’s a delivery drone that’s faster than ground transport and lower cost than today’s traditional aircraft.”

The company has secured agreements for more than 500 aircraft from commercial, defense, and humanitarian customers amounting to more than \$1 billion in aircraft demand. “We are excited about the opportunity to partner with strong operators who have been servicing these three core customer markets for decades,” said Kofi Asante, Elroy Air’s VP of business development and strategy. “The partnerships will focus on missions that aim to improve quality of life for communities by expanding express logistics.”

Reaching Rural Communities, Despite Pilot Shortages

Mesa Airlines, an American regional airline operating large fleets on behalf of partners including American Airlines, United Airlines, and DHL, plans to order 150 aircraft to serve the express parcel and healthcare sectors.

“We’ve always been at the forefront of aviation technology, and we’re proud to be at the cutting-edge of this next chapter in partnership with Elroy Air,” said Jonathan Ornstein, chairman and chief executive officer of Mesa Airlines. “I think one of the reasons why this is a moment to deploy the Chaparral system is that the market really requires it. We’re not even creating a market. We are answering a demand that exists in the market today that is currently unanswered. We are increasingly seeing the demand for same- and next-day delivery, but so many rural communities have been cut off from the national transportation system. Pilot shortages and environmental regulations make this even more challenging. With the Chaparral, we’re excited to be able to provide autonomous cargo delivery to help reconnect those communities.”

Air Force Awards Elroy Air a Tactical Funding Increase

Elroy Air was awarded a Tactical Funding Increase (TACFI) Award from the United States Air Force in Q4 2021 amounting to an additional \$1.7 million in contract value alongside its existing Phase 3 SBIR contract. The funding will be used to further develop deployment details and CONOPS in collaboration with its Air Force and Agility Prime partners. It reflects sustained enthusiasm by the Air Force and AFWERX to help accelerate the Chaparral to readiness for use by the organization.

“Agility Prime sees value in electric vertical takeoff and landing vehicles, as well as hybridization that captures the benefits of electric along with the opportunity for greater range,” said Colonel Nathan Diller, director of AFWERX. “The Air Force has also actively explored different approaches to modularity, different payloads, and ultimately a way to reduce the number of humans necessary for logistical touchpoints. It is exciting to work with partners who are passionate about building this new era of aerospace.”



Delivering Emergency Supplies for Humanitarian Relief

AYR Logistics signed an agreement with Elroy Air to purchase up to 100 Chaparral aircraft to augment and expand its humanitarian logistics business. AYR Logistics is an aircraft owner and operator with over 20 years of experience providing logistics support to the humanitarian community in over 45 countries including the United Nations, World Food Program (WFP), governments and NGOs.

“What aid agencies spend on transportation is money that they’re not spending on food, medicine and other emergency supplies, but transportation is obviously very important to get the aid to where it needs to be,” said Stephen Lyons, chief development officer of AYR Logistics. “Moving to unmanned, aerial cargo vehicles will make a huge difference to our cost structure and the risk profile of our operations. We fly in difficult terrain and difficult conditions. We don’t always have the luxury of a runway or even personnel at some locations. There simply hasn’t been a UAV with the type of capabilities that the Chaparral has in the commercial markets. The Chaparral is a quantum leap in terms of load carrying and range, as well as being able to operate with minimal infrastructure.”

“We have designed an aircraft that behaves like a hybrid between a rough-and-ready helicopter and a battle-hardened bush plane, that can pick up cargo anywhere with a 50-square-foot landing area,” said Clint Cope, co-founder and president of Elroy Air. “The Chaparral will be a vital logistics link for people around the world with unreliable roadways, and in remote and rural areas that take longer to reach today.”

An early prototype of the Chaparral was flown in 2019, demonstrating several key systems of the aircraft design. The Chaparral system unveiled today features eight vertical-lift fans, four distributed electric propulsors for forward flight, a high-wing airframe configuration, and improved ground autonomy and cargo-handling systems.

The Chaparral is a transitioning “lift + cruise” VTOL aircraft with a full carbon composite airframe and a turbine-based, hybrid-electric power train for long-range mission capabilities. It was also designed to fit in a 40-foot shipping container or C-130 cargo aircraft, enabling it to be quickly shipped and deployed anywhere in the world.

Elroy Air has developed lightweight, aerodynamic modular cargo pods that can be preloaded by ground personnel and picked up by the aircraft before takeoff. At the delivery location, the cargo pod is lowered to the ground and released after the system has landed. The Chaparral system can retrieve another prepacked pod and transport the pod to its next destination, creating a bidirectional conveyor belt through the sky.



Bell Completes Successful Demonstration for NASA SIO Extension in Collaboration with Hillwood and Northwest ISD

Bell Textron Inc. recently announced the Autonomous Pod Transport’s (APT) successful demonstration of a ground-based Detect and Avoid (DAA) flight, fulfilling an extension for its NASA systems integration and operationalization (SIO) project. The APT DAA demonstration showcased the aircraft’s ground radar system integration and its capabilities when navigating airspace traffic and requirements, a critical component

needed for future Advanced Air Mobility (AAM) vehicles.

The objective of the SIO demonstration was to execute a beyond-visual-line-of-sight mission in complex airspace utilizing DAA technology to monitor airspace for “natural intruders” using Bell’s 429 commercial helicopter and APT unmanned aircraft. Bell’s QuantiFLYTM system, a new aircraft communication unit (ACU) powered by Truth Data, was used on the Bell 429 to record aircraft telemetry data. The QuantiFLYTM system offers a true low-cost, lightweight, and fully automatic flight data monitoring (FDM) solution,

“We are excited to demonstrate the effectiveness of ground-based monitoring solutions as part of UAS infrastructure,” said Matt Holvey, director of Intelligent Systems at Bell. “Radar monitoring, whether airborne or ground based, may become an important part of drone delivery, air taxi services and other aspects of the ever-expanding AAM ecosystem.”

Bell utilized radar systems to monitor the complex airspace within the AllianceTexas mobility innovation zone (MIZ) and track manned and unmanned aircraft systems. The MIZ provides one of the most unique environments in the nation for partner organizations to test, scale, and commercialize emerging technologies in air and surface mobility. Hillwood also provided multiple sites for radar setup, and testing was conducted at the AllianceTexas Flight Test Center located approximately four miles north of Fort Worth Alliance Airport.

“We are honored to partner with Bell to launch the testing initiatives as they work with NASA to lay the foundation for the future of budding air technologies,” said Christopher Ash, senior vice president of aviation business development for Hillwood. “The data they receive from these efforts will enable the industry to advance the commercialization of this technology across multiple platforms.”



Jetson One Swedish eVTOL Company Seeks Investment

Swedish eVTOL company Jetson AB is seeking investors after selling 100 Jetson One units in just two months and receiving 3,000 purchase requests.

Jetson One is a category leader with 100 sold units and another 3,000 preorders with shipments starting in 2023. The price is \$92,000 with a \$22,000 deposit.

GoodTrust CEO and ex-Google veteran, Rikard Steiber, joined as senior advisor and first external investor to support the founders with expansion.

The Swedish eVTOL company Jetson AB (JetsonAero.com) has sold out its entire 2022 production. Since the official launch on Oct. 21, 2021, another 100 units have been sold for 2023 delivery, with over 3,000 preorders during the same time period. The Jetson One official launch video made waves on the internet reaching over 14 million views.

Jetson confirmed it will be recruiting significantly in 2022, and will do its first round of external fundraising.

"It is important for us to find the right investors now as we expand and grow our company. Jetson is looking globally for a company that shares our vision. We are at the forefront of a new industry. The skillset needed to lead in this industry is incredibly niche, as is the mindset and energy to be in a company that wants to shape the future," said Tomasz Patan, cofounder and CTO.

Jetson is currently the only eVTOL company on the market that can provide a commercially available personal electric vehicle. The demand for the Jetson One has been phenomenal, supporting the company's dream to "make everyone a pilot."

Steiber will support Jetson in raising capital as the first round of external fundraising begins.

Steiber is also a pioneering angel investor in companies such as DRL (Drone Racing League) and Einride Autonomous Electric Trucks.

"It's great to see Jetson, a Swedish company, beat the international competition to market with the first commercially available flying car," said Steiber. "With Jetson One the dream of flying now becomes a reality. Everyone can now become a pilot!"

The Jetson One is constructed of a lightweight aluminium space frame and carbon-kevlar composite body. It is powered by eight electric motors and has a flight time of 20 minutes, reaching a top speed of 102 kilometres per hour (63 miles per hour). It runs on a high-discharge, lithium-ion battery and can carry a pilot's weight of 210 pounds.

"We are incredibly happy to have Swedish tech icon Rikard Steiber on board our project. We have a big challenge ahead of us to finalize a production-ready Jetson One, and to prepare it for mass production in 2023. This is an incredibly exciting time for us but also for the eVTOL industry," said Peter Ternstrom, co-founder and president.

The first exclusive buyers can expect to receive their Jetson One in the autumn of 2022.



Northrop Grumman-Built MQ-8C Fire Scout Makes Operational Deployment with the U.S. Navy

Northrop Grumman Corporation's MQ-8C Fire Scout, the U.S. Navy's next-generation, ship-based autonomous helicopter system deployed operationally on Dec. 14, 2021. Deployed with Helicopter Sea Combat Squadron 22, Detachment 5 (HSC-22 DET 5) aboard USS Milwaukee (LCS-5), Fire Scout provides greater organic intelligence, surveillance, reconnaissance and targeting (ISR&T) capabilities for the U.S. Navy.


"This is a significant milestone in the MQ-8C Fire Scout program," said Capt. Eric Soderberg, U.S. Navy. "The transition from the MQ-8B to the MQ-8C Fire Scout has brought improved sensors and more than doubles the on-station endurance. Advances in Fire Scout's capabilities further our successful integration of unmanned platforms at sea and the Navy and Marine Corps unmanned campaign plan."

MQ-8C Fire Scout brings increased speed, endurance and payload capacity to maritime operations. The system provides operators 10-plus hours of endurance and a range of over 1,000 nautical miles, allowing for adaptable mission sets including real-time over-the-horizon targeting. When operating with manned aircraft, Fire Scout enables commanders to employ manned assets in a more focused manner.

"Our partnership with the U.S. Navy has been critical in developing Fire Scout's multi-mission autonomous capabilities which provide greater situational awareness to the joint force," said Lance Eischeid, director, Fire Scout program, Northrop Grumman. "With the ability to operate from a range of surface ships, MQ-8C Fire Scout is a powerful platform that allows the U.S. Navy to increase the detection and tracking of targets through its onboard sensors and integration with manned assets."

MQ-8C Fire Scout leverages a Bell 407 commercial aircraft for its airframe, supporting affordability through reduced life cycle costs including initial development, supply chain and flight-hour reliability. MQ-8C Fire Scout is also equipped with a Leonardo AN/ZPY-8 (Osprey) radar that enables it to detect and automatically track contacts at extremely long ranges, at night, and even in stormy weather conditions when visibility is extremely poor.

Designed in San Diego, California, and Fort Worth, Texas, by a joint Northrop Grumman/Bell team and manufactured in Ozark, Alabama, and Moss Point, Mississippi, the MQ-8C achieved initial operational capability in June 2019 and will begin replacing the MQ-8B variant on upcoming deployments.



- Visible from up to 30 miles away
- Can be left on in all phases of flight
- Does not step on the IR spectrum or cause interference with NVG equipment
- Shock and vibration resistant
- Available with an integrated pulse mode for optimum visibility
- Ideal for use in Experimental, Certified, Commercial, ARFF, UAV, UAS, and Military rotorcraft

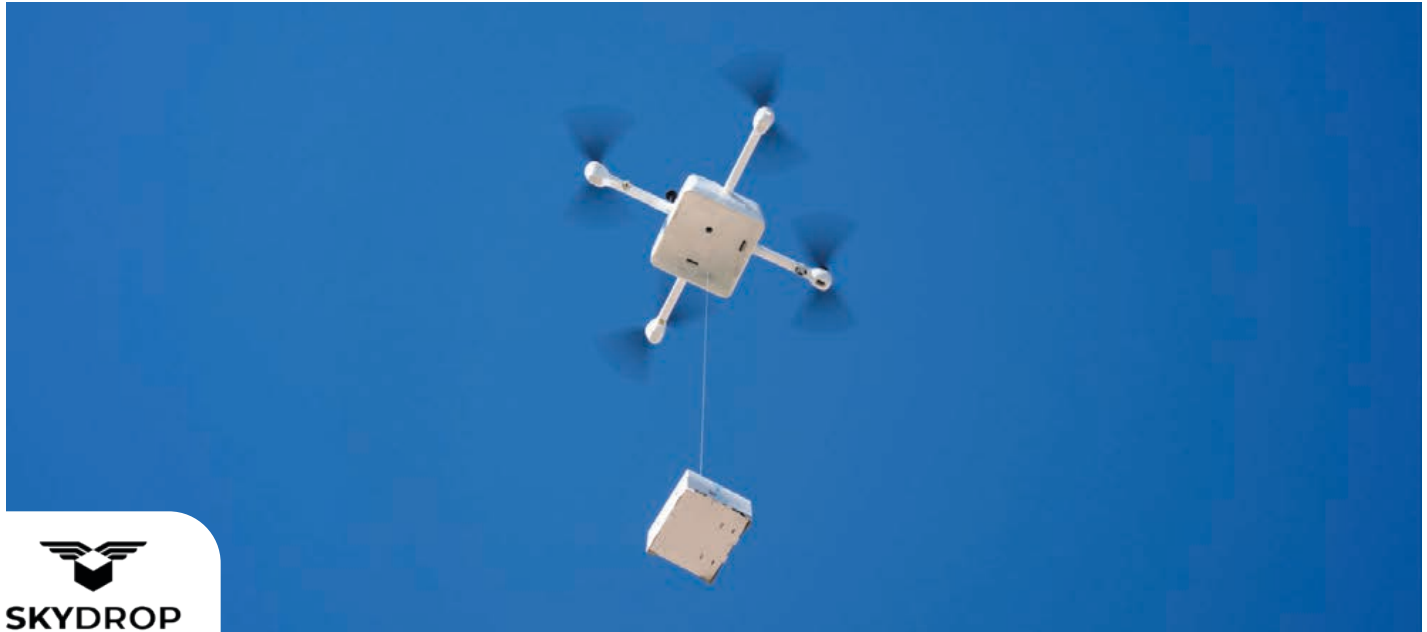
BOOTH# 7508
10% SHOW DISCOUNT

2022 HAI HELI-EXPO
BY HELICOPTER ASSOCIATION INTERNATIONAL
March 7-10 Dallas
Exhibits Open March 8-10

☎ 208.850.3294

🌐 AeroLEDs.com

MADE IN USA



Domino's Signs Deal with SkyDrop to Launch Next Stage of Commercial Drone Delivery in New Zealand

Domino's Pizza Enterprises Limited (Domino's) and Flirtey Inc. (SkyDrop) recently announced they have signed an agreement for the next stage of commercial drone delivery trials in New Zealand.

Domino's and SkyDrop have now signed a deal to launch the second stage of their commercial drone delivery partnership in New Zealand. The two companies plan to conduct a commercial trial of innovative drone delivery services from a Domino's store in New Zealand to customer homes, which is expected to commence in 2022. The trial will be operated by SkyDrop or its designee using their best-in-class drone and safety technology to deliver hot Domino's pizzas to customers. SkyDrop's advanced drones are now able to conduct drone deliveries that are speedier, safer, quieter, cheaper, and greener.

Domino's and SkyDrop partnered in 2016 to launch the first stage of drone delivery in New Zealand, delivering hot, fresh pizza from Domino's Whangaparaoa store in Auckland to a customer by drone. These demonstrations were conducted under Civil Aviation Rules Part 101. This landmark achievement was attended by both the CAA and Ministry of Transport. The delivery drone was subsequently accepted into the Aviation collection at the Auckland Museum of Transport and Technology (MOTAT). Over the following years, SkyDrop advanced its technology by increasing the payload of the SkyDrop drone up to 3.5 kg, increasing the precision delivery altitude of the drone up to 60 meters, incorporating a parachute system for safety, expanding production of its aircraft system in the U.S. in conjunction with the FAA certification process, and receiving Part 102 Unmanned Aircraft Operator Certificate and Operations Specifications from the CAA in New Zealand.

As the service scales, New Zealand has the opportunity to be at the forefront of the drone delivery industry globally, and benefit from reduced traffic congestion and greenhouse emissions thanks to electrically powered delivery drones.

SkyDrop Founder and CEO Matthew Sweeny said, "SkyDrop is excited to announce that we have signed an agreement with Domino's for the second stage of our commercial drone delivery partnership in New Zealand. We're excited to work with local stakeholders in New Zealand, who have the opportunity to be at the forefront of the drone delivery industry globally. We look forward to expanding our leadership in drone delivery focused on the trillion dollar store-to-door food delivery market."

Domino's Group CEO and Managing Director Don Meij said, "Domino's is excited to partner with SkyDrop for the second stage of our commercial drone delivery trial in New Zealand. We invested in this partnership and technology because we believe drone delivery will be an essential component of our pizza deliveries in the future. This innovation means customers can experience cutting-edge technology and the convenience of having the freshest, hottest pizza delivered by drone from their local Domino's store to their door."

Domino's New Zealand General Manager Cameron Toomey said, "Domino's New Zealand is excited to once again be at the forefront of drone delivery. Our partnership with SkyDrop is an exciting opportunity to continue to lead in the food delivery space not only in New Zealand, but in the world. We can't wait to give our customers the unique experience of having their favorite Domino's pizzas delivered by drone!"



2022
HAI HELI-EXPO
BY HELICOPTER ASSOCIATION INTERNATIONAL

FIND THE
FUTURE

EXHIBITORS

SPACE IS RUNNING OUT! APPLY NOW!

60+ HELICOPTERS | 100+ COURSES/SESSIONS
14,000 ATTENDEES | 600+ EXHIBITORS
AND MUCH MORE!

ATTENDEES

REGISTER BY JAN. 14 AND SAVE!

MARCH 7-10 | DALLAS

KAY BAILEY HUTCHISON
CONVENTION CENTER DALLAS

EXHIBITS OPEN MARCH 8-10

HELIEXPO.COM



www.helicopterhandler.com

Main Line Helicopter LLC offers six models of Helicopter Handlers™ that fulfill the requirements for safe ground handling of all varieties of skid-type helicopters. Standard Handlers range from 12 feet by 14 feet up to 18 feet by 20 feet, supporting gross weights from 3,800 pounds to 16,500 pounds. Handlers come standard with fold-away clip-on steps, center deck, extendable-length tow bar with drop bumper, and steel powder-coated front wheel chocks.

The landing deck is high-quality quarter-sawn yellow pine, with the cut making the wood more stable and less susceptible to warping, bowing and splitting. All steel frames and surfaces are powder-coated airport-caution yellow. Custom colors are also available on request, along with deck striping and staining. Limited custom-ordered sizes of handlers are available at additional costs.



www.jetshades.com

Jet Shades, manufacturer of removable cockpit window solar protection panels, is now selling Jet Shades for helicopters as part of its innovative line of sun-protective solutions.

"Dealing with sunlight is a continuous problem for all helicopter pilots. And it doesn't stop when summer ends. Glare is a year-round challenge that reduces visibility, degrades situational awareness, and poses a safety risk," Jet Shades founder Kevin J. Duggan says. "Jet Shades for rotorcraft help pilots fly safer by improving visibility for spotting traffic and viewing instruments while simultaneously reducing heat buildup in the cockpit."

Available as a direct fit accessory, Jet Shades shield pilots from 99.9% of UV radiation, over 80% of glare, and 94% of infrared heat. Unlike other accessories, Jet Shades provide unobstructed views while flying, no mechanisms that break, and an optical quality polycarbonate formula that is virtually unbreakable, making them an obvious choice for pilots seeking sun protection during flight.

"We have really enjoyed using the Premium Jet Shades package in our R66 helicopter. They look amazing with the mirrored finish, and we have received numerous compliments about them. It also makes such a tremendous difference in reducing glare and cockpit temperatures, both in the air and while sitting on the ramp. They fit perfectly in the window frames, and once they are in, they stay put. The shades are easy to remove by simply pulling on the attached straps. The clarity of Jet Shades is amazing and easy to see through. The tinting really reduces the heat from the sun and makes flying in hot weather much more comfortable. I highly recommend them!"

— Aron Whitesell, director of flight operations, ChopperGuy.com

INSPIRE YOUR AVIATION CAREER THROUGH A LEGACY OF SERVICE

Hiring Pilots and Aviation Maintenance Technicians

When critical medical care is needed, our FAA-Recognized Safety Management System and state-of-the-art equipped fleet gives our Pilots and AMTs the tools they need to help provide patients with access to a higher level of healthcare.

As a part of the Global Medical Response Family, REACH Air Medical Services has the resources to advance your career while serving the community with more than 50 locations across the Western United States.

LEARN MORE reachair.com/careers



**JOIN OUR
TEAM**

REACHSM



A Global Medical Response Solution

BY JENNIFER FERRERO AND LYN BURKS



**ERICKSON INC. CELEBRATES
50 YEARS IN BUSINESS**
AS A GLOBAL LEADER IN
AIRCRAFT MANUFACTURING
AND AERIAL OPERATIONS



WATCH VIDEO **NOW**



The employee commitment at Erickson Inc. is like that of a great sports team. The employees are the athletes, the coaches, and even the fans. The term “bad ass” is thrown around amongst employees. They proudly display the company colors and act upon the company culture with personal commitment. In 50 years of business, Erickson has become legendary as an original equipment manufacturer (OEM), maintenance, repair, and overhaul (MRO) operation, and aerial services company.

A common phrase heard among Erickson employees is “bleeding orange,” which demonstrates the team’s tenaciousness and drive for safety and service. With nearly 800 employees working worldwide, they strive to save both people and property through aerial firefighting and defense missions, while also accomplishing civil aviation services with heavy-lift helicopters. They do this with capable hands and an eye on the mission.

The cornerstone of the company is aerial firefighting with the S-64 Air Crane® helicopter, but Erickson offers many other important industrial and lifesaving services.

If there was ever a mission as serious as that of military operations, it would be the work that Erickson does on a day-to-day basis in countries like the United States, Greece, Italy, Korea, and Australia.

Like most companies, Erickson Inc. has had its ups-and-downs. They’ve had to fight for principles while driving through market restrictions and competition. They’ve had to prove their mettle repeatedly on the world stage. After 50 years, Erickson has had a few bumps and bruises, but it has withstood the challenges and has grown to thrive. The future is coming — and it’s orange.



LAUNCHING THE COMPANY IN 1971

Jack Erickson, founder of Erickson Air-Crane (now known as Erickson Incorporated) was born into a family of entrepreneurs. Erickson’s father owned a logging company. With family roots in logging, Jack Erickson was determined that there should be a better way to log mountaintops. In 1969, Erickson started talking with his friend Wes Lamatta about establishing a timber harvesting pilot program using helicopters with the U.S. Forest Service. (Lamatta later founded Columbia Helicopters.) They thought that helicopters would be the best way to access the land and off-load the massive logs. Erickson started with a Sikorsky S-61 on a lease, and then started using the Sikorsky CH-54 Skycrane helicopter, and Lamatta used the Boeing 234 Chinook, a large tandem, rotor-wing helicopter.



Erickson bought a Skycrane, and then one more for the logging business. Billy Johnson, chief engineer at Erickson Inc., has been with the company for 16 years. "They pioneered that thing," he said about Erickson and Lamatta creating heli-logging.

According to Johnson, once Jack Erickson found out that Sikorsky was no longer going to support their aircraft, he said, "You are going to support me with parts, or sell me the type certificate so that I can do it myself." Decades later, in 1992, he obtained the type certificate from Sikorsky for the Skycrane. He later renamed the aircraft as the S-64 Air Crane® helicopter.

Erickson Air-Crane was founded in 1971 with the intention of adding power line construction and aerial firefighting. Fast forward to today, Johnson says, "We are an OEM and repair station, and also an operator. These are three things that don't necessarily go together, but we do them."



1989 in Mount Washington Alpine Resort, Vancouver Island, BC.

A large, orange, spherical Bambi Bucket is being lowered by a helicopter using multiple cables. The bucket is partially submerged in water, creating a large splash. In the background, another helicopter is visible, also equipped with a bucket, flying over a forested area. The text "Bambi Bucket System" is prominently displayed in large white letters, with "40 YEARS OF INNOVATION" below it. The Bambi Bucket logo and website address are also present.

Bambi Bucket System

40 YEARS OF INNOVATION



BAMBIBUCKET.COM

ERICKSON'S CURRENT SERVICES

Today's business is robust and diverse. Here are Erickson Inc.'s four areas of business and their subsectors:



Chris Erickson, senior quality manager (no relation to Jack Erickson) has been with the company since 1981. He said that the business “evolved over decades by being an operator, then maintainer, then type-certificate holder; and then a support organization for the S-64 Air Crane® helicopter, worldwide.” The senior quality manager shared that a milestone for the company happened when Jack Erickson developed the fire tank in 1992 for aerial firefighting. He said that it was the first rotorcraft with a fire tank.

Chris Erickson has stayed with the company for 40 years and watched its evolution. Why has he worked so long for Erickson? “It is the people. I enjoy the challenges; there is always something new.”

He added that there has been immense pride in accomplishments over the years: “The construction work, the development of the fire tank, the sale of aircraft internationally, the support of the aircraft, along with worldwide recognition by international governments – (it) has been impressive.”





COMPANY CULTURE

The company's culture is emphasized repeatedly by employees. There is something unique about it that keeps employees from leaving, even though there has been some turbulence with the business going public, going back to being privately held, and going through bankruptcy. Through it all, Erickson employees continued to innovate and grow markets.

Jeff Mecklenburg, Erickson Inc.'s vice president of AeroSystems, said about the company's culture, "(It's) a get-it-done culture – tenacious and gritty. We always find a way to get things done." He added that when the company moved into becoming an OEM and added support services, they were at a milestone again. He cited the purchase of the type certificates from Sikorsky and the decision to sell aircraft.

He said, "There is a loyalty to the aircraft in the field. Bleeding orange for me is to do anything for the company, anytime; get it done." After 24 years with Erickson Inc., he also said that the people are the reason he stays. He enjoys the unique work that the company does with the Air Crane helicopter, from moving rhinos in Malaysia to delivering snow to the Vancouver 2010 Winter Olympics.

A common theme heard from employees is that they enjoy showing up to work every day because of the people they work with and the work they do. Amanda Hammersmith, blade shop manager, said, "When you actually work for a company that saves lives, that's pretty amazing."



2010 | Delivering snow to the Winter Olympics in Vancouver, B.C.



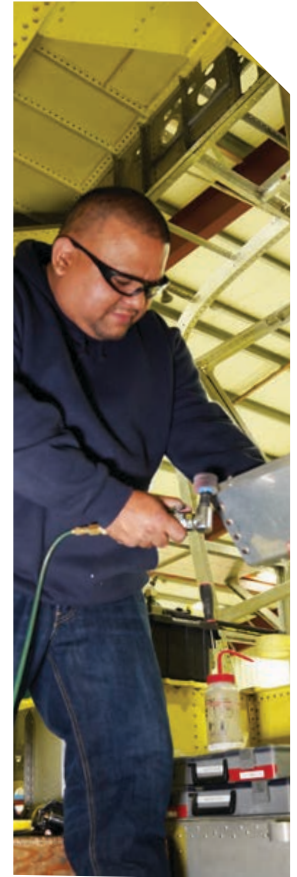
2010 | Erickson works with SpaceX



TYPE CERTIFICATES AND LEGACY SUPPORT

Erickson has developed legacy fleet support since 1992. The early purchase of the Sikorsky type certificate in 1992 for the Skycrane (later dubbed the S-64 Air Crane®) helicopter was just the beginning. Most recently in 2020, [Erickson purchased the type certificates from Bell for the 214 B/B1 and](#)

[214ST](#). Owning the type certificates means that Erickson can manufacture parts, maintain the aircraft, and create new aircraft as an OEM. Owners and operators of these aircraft can come to Erickson for support.



2021 | Maintenance and repair on I-CFAG prior to delivering to VVF in Italy



THE LEADER IN
**NIGHT
VISION**
SOLUTIONS

 www.aerodynamix.com

 sales@aerodynamix.com

⊕ INTEGRATED/CERTIFIED NVG LIGHTING MODS

Night Vision Mods

Illuminated Panels

Certifications

**COME SEE US
@HELIXPO 2022!**

— **BOOTH #7602**

AUTHORIZED DEALER/DISTRIBUTOR & OEM APPROVED INTERNAL LIGHTING MODIFICATIONS

GARMIN

Honeywell  Avionics Systems

*Rockwell
Collins*

 **UNIVERSAL AVIONICS**
SYSTEMS CORPORATION

ASPEN AVIONICS
A NEW WAY TO LOOK AT AVIONICS

**BECKER
AVIONICS**
we bring you home

AVIDYNE

 **MidContinent**
INSTRUMENTS/AVIONICS

 **SHADIN
AVIONICS**

BMS
AVIONICS

 **Sagem Avionics Inc.**
Safran Group

COBHAM

WHELEN
ENGINEERING COMPANY, INC.

OWNERSHIP AND EMPLOYEES

In today's world, people often change jobs. It is a unique company when you hear about employees staying on for 10 and 20+ years. But at Erickson, that is the case. Many long-term employees cite two reasons for staying with the company:



MISSION

The array of diverse
and fulfilling projects

Steve Reavis has been with the company for 31 years and now works as the commercial sales manager. He said he has had many positions during his tenure at the company, and now works with customers on civil projects to set up the movement of television antennas across mountains, HVAC unit lifts onto massive warehouse facilities, timber harvesting, and even cargo transport for the oil and gas industry.

He said, "Erickson's services, as an organization, are to provide best-in-class service for both manufacturing and aviation operations to the specialized industry, including firefighting, heavy-lift, general support manufacturing of both platforms and outside capabilities."

The work is diverse, as he has been able to secure many heavy-lift, high-impact projects over the years.

He added that inventions, such as the anti-rotation system developed by Jack Erickson in 1974, were assets to the S-64 Air Crane® helicopter and the company. "This allowed the aircraft to perform short-rigging with better control than using long, line-spinning operations. The development of the fire tank, which was developed for a market that didn't exist at the time — everyone was using buckets — Erickson was on the front of that development," Reavis said. "Erickson has developed a global market with a platform that has shown itself to the world. We are the largest S-64 operator in the world."

Regarding the "bleed orange" culture, Reavis said that the meaning is in execution. "The organization was strongly based upon the core values of the people. Everyone was willing and able to step out and show the capabilities of the organization. 'Bleed orange' shows that employees can execute on capabilities. They are strong, capable, and willing."

PEOPLE

The commitment to
their coworkers



2010 HVAC project with AMS
Mechanic Systems for the Hyatt
in Chicago, IL



FUTURE INNOVATIONS

The aerospace industry must take time with new innovations. It is well-known that the creation of new aircraft and changes to existing models can be deliberately slow because the safety of pilots and passengers is at stake.

With Erickson, they are preparing to reinvent the S-64 Air Crane® helicopter. [The working name of the new vehicle is the F+.](#)

Some of the innovative technologies will include:

- Engine upgrade and modernization
- Sikorsky's MATRIX™ Technology
- Enhanced water cannon
- Composite Main Rotor Blades (CMRB)

In 2020, the [development of CMRB](#) was completed and approved by the FAA, and Erickson started rolling them out to existing models. They offer a lighter, more streamlined flight and are more fuel efficient than traditional metal rotor blades (see the sidebar for more information). The "enhanced water cannon" has also been going through testing and prototyping and should be ready soon. Stay tuned for more innovations from Erickson like night vision goggles, and autonomous technology that allows the S-64 to safely conduct nighttime firefighting.



SUMMING UP

Just like a winning team, Erickson, Inc. is beloved by employees, customers, and the helicopter industry. They have committed themselves to worldwide service using a variety of helicopters in their fleet. The sentiment is that the company “bleeds orange” because of its grit and the drive for each employee to remain committed to each other and the mission.

2018 | Woolsey
Fire in California



ERICKSON'S INVENTION OF COMPOSITE MAIN ROTOR BLADES

In 2011, Erickson realized that the main rotor blades, nearing 40 years old, on the S-64 Air Crane® helicopters, were dated and needed to be replaced. Traditional aluminum blades were difficult and expensive to manufacture. They knew there had to be a better way.

Blade Shop Manager Amanda Hammerschmith (10-year employee) has worked on the project for years. Early on, Erickson worked to partner with others to develop the blades, but eventually found that they needed to bring it in-house if it was going to be completed.

"There's nothing too big for us. Erickson can accomplish anything. There's nothing this company can't handle," Hammerschmith said.

Erickson Chief Engineer Billy Johnson said, "Erickson's composite main rotor blade (CMRB) program is the type of complex project typically done only at much larger manufacturers. Our work on the CMRB reflects a level of sophistication here at Erickson that the aerospace and manufacturing industries are becoming much more aware of now."

Over 10 years, with 60 employees and involvement from a variety of departments (and third-party organizations), new blades were created. Hammerschmith said, "We developed a brand new blade that no one else had. We have a full composite blade that has done wonders for the company with efficiency, fuel, and lift. At the Blade Shop we hand lay-up the spar. It is an amazing project, and it is very worth it for our company."

The CMRBs are installed on the S-64 Air Crane® helicopters for both the Erickson fleet and for owner/operators of other helicopters.

For more information about Erickson Inc. visit ericksoninc.com



TRUSTED WORLDWIDE

EMS aircraft operators worldwide look to Spectrum Aeromed for customized solutions to the most complicated projects and comprehensive aircraft EMS interior requirements.

+1(701) 205-3158
SPECTRUM-AEROMED.COM





SAFETY IS TOPS

By Christopher Young, Executive Director
of Tour Operators Program of Safety

The air tour industry has been heavily scrutinized in recent years. Whether due to safety concerns from the general public and legislators, noise complaints, or limits on access to national parks, operators in this sector have been facing challenging times. With the addition of the significant impacts of the COVID-19 pandemic, these companies barely continued to keep the lights on.

Fortunately, air tour operators are resilient and resourceful in dealing with these types of issues. That's important because they provide a valued service to passengers who eagerly seek out this

mode of sightseeing, and who might not otherwise have access to the unique and beautiful locations throughout the world.

One bright resource in this murky period is a certain group of air tour operators who believe in flying to a higher standard that promotes safety and enhances customer experience. The members of the Tour Operators Program of Safety (TOPS) continue to persevere and identify methods for improving the air tour industry. This successful model focuses on like-minded operators collaborating with other industry associations and the communities where they fly.



“

TOPS has always had a focus on safety and a deep sense of obligation for helping the air tour industry fly to a higher standard.”

*-John Becker, TOPS board member and
COO of Papillon Grand Canyon Helicopters*

In the early '90s, four helicopter tour operators met to discuss ways to improve safety for the air tour industry. It was a time when air tours were experiencing growing pains after sensationalized media coverage over preventable accidents painted the industry as one with little regard for the safety of its passengers. Although the Federal Aviation Administration (FAA) had its own set of requirements and safety guidelines for aviation operators, the tour operators felt their industry needed a tailored safety program to reduce public concerns and skewed perceptions.

So in 1996, TOPS was incorporated as an independent non-profit organization. Members implemented the detailed TOPS Program of Safety that incorporated the expertise and experience of those who know the industry best. It was well received by the FAA and the National Transportation Safety Board (NTSB). For the first time, there was an organization, TOPS, that was dedicated solely to enhancing the safety of all aspects of helicopter tours.



TOPS Mission: TOPS works as a collaborative team to develop air tour safety standards and recommended practices that are progressive, best-in-class and exceed regulatory standards.

The TOPS Program of Safety incorporates innovation in the area of continuous improvement for air tour safety. TOPS standards are routinely revised to account for new safety technologies as well as better processes. The organization has a robust safety culture that includes sharing lessons learned and recommending best-in-class practices that exceed regulatory requirements.

A core element to this standard now is the implementation and sustainment of a safety management system (SMS) that

is still not a regulatory requirement for this aviation sector. Although not an easy effort, TOPS members recognize that it is a necessary element for safety as well as for sustained trust from passengers and the general public. An SMS process review is part of the annual audit that operators must complete to verify conformance to the Program of Safety. This is an effective tool to assure TOPS members maintain alignment with the organization's mission.

"This is one of those experiences that are very hard to put into words."

"Amazing views from the top of the world..."

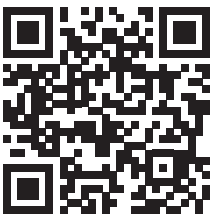
"This was my first helicopter ride and I couldn't have been happier with the experience."

-Passengers on tour flights from Juneau, Alaska

YOU'RE A PRO.

BUT ARE YOU A
ROTORCRAFT PRO?

**SUBSCRIBE
NOW**



GET THE MAG / APP / WEB / ENEWS / VIDEO

GET CONNECTED!





Before the pandemic, the air tour industry was experiencing steady annual growth as tourists sought out this type of sightseeing experience. Viewing scenic areas and landmarks from the air is undoubtedly unique and potentially a once-in-a-lifetime adventure. In addition, this may be the only way for passengers with disabilities or physical limitations to access these beautiful locations.

The variety of services and types of excursions provided by air tour operators offer many advantages for local communities and tourists alike. TOPS members enhance passenger safety with specialized equipment, additional training for pilots and maintenance technicians, and distinctive risk-reducing processes. The various flights take passenger desires into account alongside the best methods of

minimizing their impacts on the surrounding community.

As flight volume returns to pre-pandemic levels, this level of commitment by TOPS members will remain integral to fostering a safety culture focused on the customer.

“

TOPS recognizes the need for community engagement. As operators, TOPS membership understands the industry and importance for enhancing safety and can bring those insights into meaningful dialogue with the community. TOPS is an important stakeholder in moving the industry forward on safety and improving compatibility in the communities in which our sector operates.”

-HAI Vice President of Government Affairs Cade Clark

TOPS also understands the importance of partnering with other aviation associations, the community, and local governments. As stated previously, there have been concerns related to air tour noise, safety, and environmental impacts. TOPS members participate in working groups with Helicopter Association International to help facilitate industry-wide solutions to

these issues, and to help build cooperation with community-based organizations such as the Hawaii Air Noise and Safety Task Force.

TOPS members recognize these stakeholders play a vital role in balancing access with the preservation of beautiful areas where sightseeing flights take place.

Through education, open dialogue, and genuine action, TOPS members have helped resolve numerous issues raised by the general public. TOPS knows this is a challenging endeavor, and will continue in good faith to help manage the concerns of local communities and legislators.



**Improving Helicopter
Safety...One Pilot at a Time!**

PREFERRED TRAINING PROVIDER

Now Accepting USAIG Safety Bucks

TRAINING PROGRAMS AVAILABLE:

- Bell 407 Series
- Bell 206 Series
- MD500 Series
- AS350 Series
- NVG Training*
- Robinson R22/44 FAA Pilot Training
- Part 135 Management BootCamp®
- Aviation Safety Officer (ASO) Training

* FAR 61.195(k)(7) NVG Instructor Endorsement Issuance Authorized

Training Partners:



Proud Supporter:

817-224-2500 (US)
WWW.HELICOPTERINSTITUTE.COM

“

I would say this about TOPS: We are delighted to have the opportunity to work with TOPS moving forward. TOPS has established itself as a leader in the helicopter safety space, and we are excited to leverage the years of industry knowledge that the TOPS team brings to the table to improve our practices, procedures, and policies.”

-Ryan Harbison, general manager & VP of business operations, Breeze Helicopters



In 2020, TOPS members recognized that a large portion of the air tour industry was errantly being excluded from its membership due to the sole focus on Federal Aviation Regulation (FAR) Part 135 certificate operators. One of TOPS' goals is to be more representative of the air tour industry. As a result, a new category of membership was established to help mentor small FAR Part 91 operators and raise the level of safety for the whole industry. The Transitional Member is an operator who has air tour/

sightseeing operation(s) as an integral part of their business, but does not meet all the standards of the Program of Safety. The process includes a gap analysis and a 24-month timeline for full conformance with TOPS standards.

This inclusion of a new class of tour operators is proving to be effective. Several operators who previously would not have considered being a part of TOPS, including Panhandle Helicopter in Panama City Beach, Florida, and Breeze

Helicopters in Miami/Fort Lauderdale, are now participating and appreciating the benefits. They now have access to TOPS operators' resources and experiences to facilitate operational growth, improved training, professional development, and safety management. This involvement also can provide a pathway for aspiring personnel to join larger air tour operators in the future. The Transitional Membership will continue to evolve as TOPS learns how to better support these operators.



“

From the very first conversation I had with the members of TOPS, I could see how genuinely proud they were to explain what sets the 'Tour Operators Program of Safety' apart from other safety organizations. Immediately, I was inspired by their passion and commitment to going above and beyond the standard safety regulations in our industry.”

-Chynna Rosett, general manager, Panhandle Helicopter



Currently, TOPS Regular Members include Blue Hawaiian Helicopters, Coastal Helicopters, NorthStar Helicopters, Papillon Grand Canyon Helicopters, and TEMSCO Helicopters. The Transitional Members include Breeze Helicopters and Panhandle Helicopter. Several other operators also have shown interest in recent months, including fixed-wing tour companies, so 2022 looks to be a promising year for membership growth and program expansion.

TOPS has an important group of Associate Members who support its mission and efforts, too. They include OEMs, insurance companies, maintenance and part providers, technology developers, and safety management solutions.

TOPS will continue to strive towards flying to a higher standard to help promote robust risk management in the air tour industry. It is essential that the general public recognizes that the air tour industry plays an important role and it understands that passenger safety is paramount. Challenges will continue to face the air tour industry in the future, but through deliberate collaboration and meaningful safety action, we can achieve success.



GOODBYE HOT, SUNNY HELI COCKPITS!

Jet Shades Removable Sun Protective Panels for Helicopters



**Blocks UV, Heat &
Glare While Flying!**

**Come See Us
at Heli-Expo!**

BOOTH #8602



JETSHADES.COM



HELiHACK

ALIEN VEGETATION
CLEARING OPERATION:
WESTERN CAPE, SOUTH AFRICA

Combine a highly skilled pilot, a helicopter perfect for the remote terrain, and a talented team of volunteers and you get Helihack. It's an ambitious and challenging project that ferries skilled chainsaw operators via helicopter to otherwise inaccessible mountainous locations.





In late 2017, Cape Town was the first major city in the world to announce it was approaching “Day Zero” – a reference for the day its water supply would largely run dry.

Authorities say they will shut down the municipal water system when the city’s water reservoirs drop to 13.5 percent capacity.

The Helihack project offers one more way to help avoid or at least delay Day Zero by eradicating prolific non-native vegetation in the watersheds surrounding the reservoirs.

The Western Cape mountain ranges cover one of the Strategic Water Source Areas (SWSAs) for surface water in South Africa. SWSAs cover 8% of South Africa yet supply 50% of the mean annual runoff.

Among the biggest threats to SWSAs are invasive alien vegetation and drought exacerbated by climate change.

The government also implemented various other water-saving measures including temporary desalination plants, water restrictions on residents and businesses, drilling boreholes, and researching natural aquifer water sources.

In 2018 the drought was declared a disaster in three provinces and therefore a national disaster.

All these measures have pushed back Day Zero, but it still looms as drought conditions remain in some Western Cape regions and climate change continues.



DESIGNED FOR HOW YOU FLY

SERVING FIRST RESPONDERS
FOR MORE THAN 25 YEARS



AIR MEDIC



LAW ENFORCEMENT



DEFENSE



FIREFIGHTING

Critical situations call for critical components. As the pioneer in next generation night vision products, training, and support, Aviation Specialties Unlimited is the trusted night vision partner to airborne operators flying complex missions. See how the aviation community drives our dedication to make flying safer under cover of night by visiting ASU-NVG.com

LEARN MORE | HELI-EXPO Booth 5104

AVIATION SPECIALTIES UNLIMITED

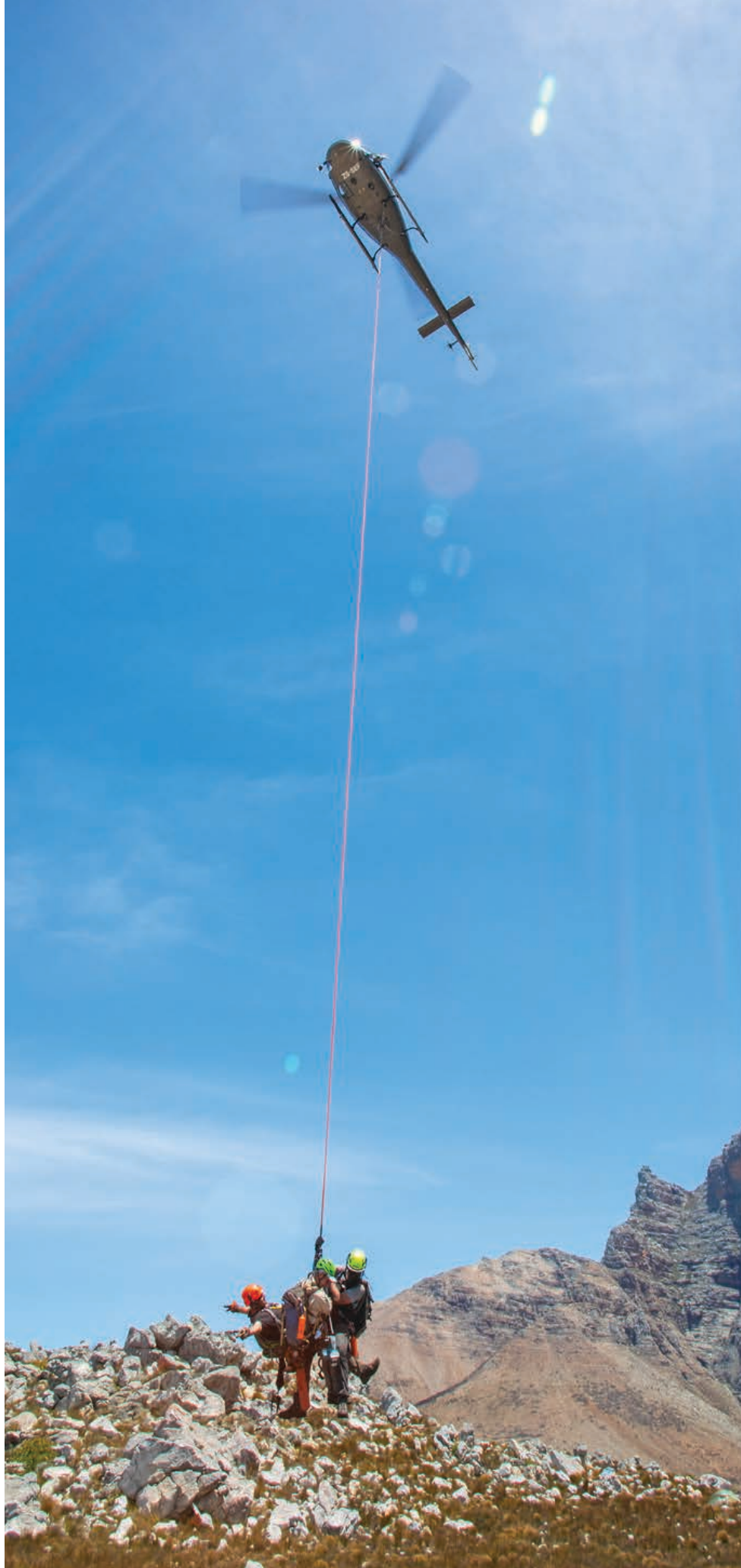
+1 (208) 426-8117



For the Helihack project's first two and a half years starting in 2014, the focus was on shooting a native fungus-based biocontrol agent called Hackattack from a helicopter to eradicate non-native silky hakea shrubs (*Hakea sericea*).

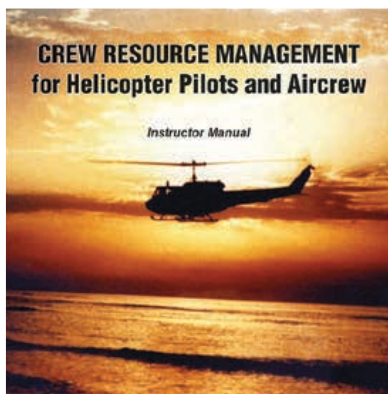
Since 2017, the focus has shifted to felling maritime/cluster pine trees (*Pinus pinaster*). Helicopters carry experienced volunteer rock climbers with chainsaws to inaccessible, rugged mountain areas. Many of the team members also are involved in mountain rescue, which in South Africa is a volunteer service.

The Helihack project has implemented 16 tree-felling operations over the past four years. The work typically occurs Fridays through Sundays. Volunteers meet up with helicopter crews at a fuel-and-supply station at the base of the mountain range on Friday for their flight high into the mountains. A safety briefing takes place and the tree felling work starts. Work continues on Saturday and the teams are extracted on Sunday.



Teams of two or three members are attached with harnesses to the strop beneath the helicopter (a human external cargo setup), transported to various areas and dropped at each location using a vertical reference long-line technique. Husqvarna and Stihl chainsaws are attached to each volunteer, typically hanging underneath them during the short-haul helicopter flight. Each crew has enough water and food for the day's activities. Spare parts, extra water and other supplies are dropped off via helicopter to the teams during the day using an underslung cargo net. Some crews stay on a specific mountain section the whole day because of the high number of trees, while others in the steeper more technical areas are moved a number of times during the day. Teams are equipped with VHF and airband radios for communication with the helicopter and other teams.

An estimated 4,000-5,000 pines are cut down during a single weekend, depending on their density. If the pines are widely scattered, the total is lower.



BECOME A CRM INSTRUCTOR

TWO-DAY ONE-ON-ONE CRM INSTRUCTOR COURSE
WITH EXPERT RANDY MAINS

INCLUDES 300 PAGE CRMI MANUAL WITH 14 CRM MODULES

CONTACT INFO@RANDYMAINS.COM



For the first Helihack trip, the crew flew in using skid-landings. This was soon discontinued as it was not effective.

The better technique has been the stop with rock climbers and equipment hanging on it. Climbers can be delivered to steeper ground where the pines are commonly situated.

These committed volunteers invest their own money and time into the project. The pilots, who are experienced at flying in mountain areas close to the ground, are paid. As an aircraft is expensive to run and maintain, the project costs an estimated \$22,000 per weekend.

Helicopters utilized to date are the Bell 407, AS350 B3 Squirrel, Augusta Koala and Huey. Safety is of prime importance for this challenging and unique undertaking, so experienced pilots and capable aircraft are important. Bronte Heinrich was the pilot on the last few operations using Savannah Helicopters' AS350 B3. He has extensive experience in firefighting, live-line power line repairs, longline, aerial filming, and aerial construction.

"A helicopter is really the only way to do this job safely and in a reasonable time frame," Bronte says. "It's very challenging flying, but also highly satisfying to see how

much has been done by the end of the weekend."

The AS350 B3 is respected worldwide for its operational superiority compared to other single-engine turbine helicopters in its class. It still holds the world record for the highest-altitude landing and takeoff on Mount Everest at 8,848 meters (29,029 feet). Primary use of the AS350 B3 is in hot-and-high operational environments, where it excels. This makes it an ideal helicopter for the Helihack operations. The high-altitude mountainous areas often have unpredictable winds from a variety of directions.

Capacity is for a pilot and up to six passengers, with 4⁵ hours of endurance adding to its operational flexibility. The flat floor can easily be configured for aerial work such as the Helihack operation, firefighting, and passenger transport.

The Safran Arriel 2D engine provides 710 kilowatts of takeoff power and a maximum takeoff weight of 2,250 kilograms (approx. 4,960 pounds).

On a maintenance level, Airbus' support of a worldwide service network ensures the machines experience as little downtime as possible.





These committed volunteers invest their own money and time in the Helihack project.



The Helihacks that have taken place to date:

- 2017 March and September at Zuurborg
- 2018 March and September at Zuurborg
- 2019 March at Springstygbeugel
- 2020 March and October at Springstygbeugel
- 2020 May, August and October at Zuurborg
- 2021 March, November at Milner Peak (four weekends).
- 2021 April at Milner Peak
- 2021 May at Zuurborg

Summing Up

What makes the Helihack project unique is that the highly skilled teams do what other loggers can't do at high-altitude locations where access is complex and dangerous. Helihack operations are more expensive, dangerous and challenging than other approaches to eradicate invasive alien vegetation, but are more efficient. Remote locations in the high catchments can be cleared to prevent spread downstream.

The Helihack project benefits the people of Cape Town and surrounding areas as it contributes to biodiversity conservation and an increased water yield in the Boland and Groot Winterhoek Strategic Water Source Areas.

The Helihack teams complement other non-native tree clearing projects that focus on rivers and low-altitude areas.



Funding and Organizational Specs

The Helihack project is planned, organized and managed by the highly skilled Aleck and Chris McKirdy, who have assembled and trained enthusiastic volunteer teams.

The project is based on collaboration and partnerships between several agencies and supported by the Agricultural Research Council, Water Boards from Villiersdorp and Hex Valley, the Western Cape Department of Environmental Affairs and Development Planning, and South African National Parks.

Drakenstein Trust coordinates the funding of the project (Contact details: Jay Cowen email: jay@bechet.co.za). Drakenstein Trust was formed in 1995 and is a registered NPO. Its initial primary purpose was to help finance the development and deployment of biological control agents to combat alien vegetation types prevalent in the Western Cape.

The trust's mandate has since been broadened to support organizations such as Helihack that clear alien vegetation types, and to provide scholarships to student scientists in relevant fields.



TAKE YOUR CAREER TO NEW HEIGHTS!



HIRING PILOTS AND AVIATION MAINTENANCE TECHNICIANS

As a part of the Global Medical Response Family, Med-Trans can help you advance your career with opportunities in over 100 locations in 26 states.

Visit med-trans.net/careers to learn more.



 A Global Medical Response Solution



BY JAMES CARELESS

OEMS TAKE MRO TO THE NEXT LEVEL WITH DIGITAL TECHNOLOGY

There will always be a place in maintenance, repair & overhaul (MRO) services for wrench-turning mechanics using their grease-honed handiwork to keep helicopters flying. However, original equipment manufacturers (OEMs) such as Airbus Helicopters, Leonardo Helicopters, Sikorsky (a Lockheed Martin Company) and Robinson Helicopter Company are harnessing the power of digital technology to bring their customers the very best in MRO services. Here are some of the advances in MRO services that might be used by our readers in the year to come.



Digital Transformation and Big Data

We live in an internet-connected digital world where access to design and performance data allows MROs to speed up, streamline, and expand the services they offer to clients. The overwhelming volume of this data coming from onboard diagnostic devices and countless other sources is why it is known as “big data.”

This is particularly true in the helicopter MRO market, where OEMs are implementing digital technology such as algorithms, artificial intelligence (AI), and digital twins to provide faster and better service to their clients.

Sikorsky’s MRO division is a strong believer in the power of digital technology. “As an enterprise, we are heavily focused on digital transformation,” said Dina Halvorsen, Sikorsky’s program director for Future Vertical Lift (FVL) and Army & Air Force systems sustainment. “Our MRO facilities are streamlining processes and operations by using modern digital tools as part of a digital thread that enables the seamless exchange of data from design through production, to maintenance and sustainment. We’ve

also increased our tool control by implementing RFID toolboxes to accurately manage tools to reduce FOD (small objects/debris that can cause injuries/damage) and reduce non-productive time in our shops. As well, we use AI extensively to analyze HUMS, usage, and maintenance data from our existing fleets to develop material forecasts, preposition material, and extend component lives.”

Leonardo Helicopters uses big data to improve its aircraft reliability, predictability, and availability for flight. This advance was made possible through the creation of AI-enabled software systems to compile and analyze vast amounts of information.

“Big data generated by the Leonardo fleet is a valuable source of information. When fully exploited, it can unlock significant benefits to internal operations, products, and services to our customers,” said Maurizio D’Angelo, Leonardo Helicopters vice president of Customer Support and Training, Americas. “To further this concept, Leonardo is making the helicopter data download process effortless through a reliable and secure automatic data transmission.”



DON'T BE A VICTIM OF A LIABILITY LAWSUIT

Professional Liability Insurance
Protection for Pilots, CFI's, & AMT's

With XINSURANCE, You Get...

- > All-in-one approach
- > Available in all 50 states
- > Limits up to \$10MM with excess available
- > 24/7 claims hotline
- > Asset protection
- > Risk management
- > Agent friendly

XINSURANCE is powered by Evolution Insurance Brokers, LC ("EIB"), an excess and surplus lines insurance brokerage. XINSURANCE is a DBA of EIB, which is domiciled in and has its principal place of business in Sandy, Utah. This insurance product is offered by an unlicensed surplus lines insurer. The NPN for EIB is 5464658 and CA license number is 0H93938.

Ask us
about our new
coverage option –
Communicable
Disease
Liability

Scan the QR code
for a free custom
insurance quote



Learn how to protect
your aviation career, assets, &
reputation visit

www.xinsurance.com/pilot

For a free quote, contact

877.585.2853 or

quotes@xinsurance.com

XINSURANCE®

Digital Twins

The concept of digital twins is as brilliant as it is simple. Wherever there is an actual, physical helicopter system that reports performance data on an ongoing basis, there can be a virtual twin existing in cyberspace. As the physical system clocks up hours and transmits performance data in real-time, that data can be input into the virtual model. The result is an AI-enabled digital twin that can be used to predict faults, test performance limits, and try out possible repairs, all without having to take the physical system out of service.

This is why helicopter OEMs such as Sikorsky are using digital twins in their MRO businesses. “Digital twins bridge the gap between the physical and digital world and help our customers make informed sustainment planning decisions,” said Halvorsen. “By incorporating the digital twin into our customers’ infrastructure, we can identify spare parts needed ahead of mission completion.”

Sikorsky’s first fully digitally designed aircraft was the CH-53K, which uses digital twins to enhance its maintenance and systems monitoring. “We are also developing next-generation digital twins for our Future Vertical Lift offerings,” Halvorsen said. “We recognize that to remain competitive we must explore ways to make things quicker, more efficient, and cost effective. For our legacy aircraft, we have also teamed with the U.S. Army and NIAR to convert our legacy UH-60L data into a digital twin.”



A UH-60L Black Hawk helicopter is prepared for shipment at Corpus Christi Army Depot for an 800-mile journey to Wichita State University where researchers at the National Institute of Aviation Research (NIAR) will create a virtual model of the work horse of Army aviation.

Photo: Lisa Simunaci



Predictive Maintenance

As touched upon before, one major advantage of big data and digital twins is their ability to support predictive maintenance. Using digital technology, an MRO can detect issues in physical systems long before they become apparent to mechanics or pilots. This allows the MRO to alert the helicopter owner/operator and remedy the issue in a timely, scheduled manner — rather than everyone being ambushed by an aircraft-on-ground (AOG) breakdown at some far-from-base location.

“Predictive maintenance and prognostics enhance availability, minimize logistic delay time and footprint for spares and support equipment, which keeps aircraft flying longer and cheaper,” said Halvorsen. “From a legacy fleet standpoint, they allow us to ease the sustainment burden by having readily available virtual data to select parts that can be reproduced additively to support long-term sustainment of aircraft that may have otherwise sunset due to the supply chain no longer producing key components.”

Preventative maintenance is one of many digitally enabled advances being pursued by Airbus Helicopters. “We are working in many areas that all address the same purpose:

being able to deliver added value to the business thanks to innovation, mainly data intelligence and automation,” said Olivier Lemaitre, the company’s head of MRO and upgrades. “For example, we’re leveraging connected services and big data to better predict the maintenance needs of helicopters and to optimize our operations. One of the technical solutions that allows us to do so is the Airbus Skywise open data platform, where we input data and run analyses to detect potential issues or weaknesses in our parts coverage.”

In line with the industry’s trend towards digitalization, Airbus recently launched the HDataPower package. It is a data-driven service offering aimed at Helionix customers (users of H135, H145, H175 and H160 helicopters). “This package is designed to boost flight, airworthiness, and maintenance operations through easy-to-use digital solutions that leverage data generated by helicopter systems, such as flight data recorders and avionics systems (Helionix®) or maintenance software and applications used to manage fleets,” Lemaitre said. “One example of what this means for helicopter maintenance is that the operator would receive data-driven suggestions for optimizing their scheduled maintenance plan.”



Technology is key to operations in the Airbus Helicopters dynamic assemblies centre where the OEM also handles dynamic component repairs.

Photo: Airbus Helicopters

 **Alpine Aerotech**
Experience has no substitute

DIGITAL AVIONICS UPGRADE

BELL 205/212



**NOW ACCEPTING
PRE-ORDERS**



It addresses Airbus latest generation of helicopters

HDataPower





Foreseeing Failures

The ability to forestall failures is a big benefit of digitally enhanced MRO helicopter services, but Leonardo Helicopters wants to take this advantage one step further by foreseeing failures before they occur. It's all part of this company's digital package. "We have developed algorithms to refine and improve the predictability of failures in the field; analyze the use of the helicopters in terms of maneuvers and spectrum of use; and simplify the periodic sharing of the as-maintained configurations of aircraft in the field," D'Angelo said.

Armed with algorithms, Leonardo can provide helicopter owner/operators with risk-sharing maintenance contracts and turnkey pay-by-the-hour packages. These arrangements allow customers to avoid major outlays due to maintenance on their helicopters by "discharging part of the risk on Leonardo," D'Angelo told *Rotorcraft Pro*. "In turn, Leonardo – thanks to the recognized capabilities of its own MROs, the amount of data coming from the field and the analysis and calculation of advanced algorithms – can afford to better manage the risk and provide guaranteed service levels."

Quality Improvements

Digital technology doesn't just let MROs offer preventative maintenance and reduce AOGs. It also allows OEMs like Airbus Helicopters to make improvements throughout its operation, which ultimately leads to happier MRO customers.

"When it comes to digital technological advances and updates in helicopter MRO, we focus our efforts primarily on areas that will allow us to enhance the quality and safety of our operations as well as customer satisfaction," Lemaitre explained. "For example, we put in place a specific plan that has improved the turnaround time of blade MRO work, which has had a positive impact on customer satisfaction. Overall, thanks to our two types of HCare global support contracts (HCare Smart and HCare Infinite), we are able to offer an optimized solution for each customer's situation, starting with by-the-hour spare parts supply or parts repair (Smart), to an all-inclusive solution covering all aspects of operating a fleet of helicopters (Infinite)."

Smaller Platforms

The power and possibilities of digital technology is making possible all kinds of innovations in the helicopter MRO space. Sometimes the goal is to push the envelope. Other times it is to bring advances that began in the world's largest and most complex rotorcraft to the more affordable mass market.

A case in point: "What we do at Robinson Helicopter is bring technology that has traditionally only been available on larger platforms down to the small helicopter segment of the industry," said Daniel Rugenstein, technical representative with Robinson's Customer Training and Support unit. "This helps the MROs make better maintenance decisions, increasing the level of safety in our helicopters. A couple of examples of these are the engine monitoring units (EMU) and the 4K cockpit cameras that are now available on all of our helicopters. We created both of these units in-house using our engineering staff, which gives us the ability to maintain control over cost and future upgrades. The computer software needed to interact with these units is available free of charge and open to everyone via our website at robinsonheli.com."



What's Next

We've touched on the advances made possible by digital technology so far. Here is what's planned next.

At Leonardo Helicopters, "Our short-term plans to increase our productivity and efficiency are focused on the MRO software to facilitate the work order management," said D'Angelo. "We're also looking to increase our local capabilities in the U.S., investing significantly in gearbox repair, overhaul equipment and structural repairs of 119/109 series airframes."

Over at Sikorsky, "We're heavily focused on improving the design and planning of maintenance from part forecasting to inventory optimization," Halvorsen said. "By having the right parts

available at the appropriate forward stock location (FSL), we will ensure that our customers' needs are being met prior to an AOG occurrence. By continuing to leverage digital technology, we're able to increase efficiency of operations and reduce turnaround time, which results in cost savings."

"All of Airbus' digital technological efforts are about continuity and faster service," Lemaitre said. "In a nutshell, our future plans are to continue to develop additional services for our customers, to continue to optimize our network, and to improve our operational performance on quality and aviation safety, turnaround time and costs, while also leveraging digitalization and robots."



HELICOPTER HANDLER
MANUFACTURED BY MAIN LINE HELICOPTER, LLC



MOVING SKID TYPE HELICOPTERS SINCE 1968

helicopterhandler.com

251-928-2771

info@helicopterhandler.com

IIMC DARWIN'S TANGLED WEB

By Randy Rowles

Too often we hear of a family on a helicopter departing with a loved one at the controls. Somewhere along the route, they encounter poor weather conditions. A decision is made to press on into the deteriorating weather conditions. The flight ends with a family perishing in what has become a predictable outcome.

The intended consequences of this flight were far different than reality. The pilot did not wake up and decide to kill his or her family in a helicopter crash. Something else happened that outweighed the most basic human trait: to protect your family at all costs. How could a decision to fly outweigh saving your family from such a predictable outcome? This example involves a private flight, but commercial operations are equally at risk.

Such decisions are made not in a singular thought or activity, but in a series of decisions that play out like a video game where the pilot is the avatar. Each of these critical decision points represents a level of play, and the farther you go into the game, the more challenging and mortally defined the ending.

Having spent many years teaching IIMC and experiencing my share of encounters that worked out successfully, I've developed a tiered approach of engagement levels that define an IIMC decision tree. There are three levels of engagement: behavioral, cognitive, and emotional. It's the actions leading up to the event that determine our survival during an IIMC encounter.

A Level One (behavioral) IIMC encounter is intriguing to me. It's the cliff where the danger exists. However, since the pilot has no intention of proceeding into worsening conditions, the perception of safety exists. In fact, it's a Level One weather encounter that has proven to be the most dangerous to your survival. This is where the fatal decision tree begins. Since learning is defined as a change in behavior due to experience, maintaining a healthy IIMC training regimen followed by strict personal minimums would make a sensible solution.

Once the behavior of the individual has been compromised and a continued flight decision is made (Level One), the cognitive phase begins (Level Two). The cognitive phase, to be successful, relies on a thought-based approach gained through experience and use of your senses. This is where pilots reach the point of no return. Many helicopter pilots have no actual experience dealing with such weather conditions, and their senses begin to fail them. It is during this Level Two encounter where the pilot begins to question their decisions and confusion sets in. In many cases, it's this period of confusion and denial that delays the decision to land.

Once a pilot is fully engaged in weather conditions where visual flight is no longer an option (Level Three), the emotional onset of guilt, denial, and fear often overshadow the pilot's ability to cope with the conditions. Once engaged with a Level Three IIMC encounter, the data shows you have approximately 56 seconds to live!

The FAA and U.S. Helicopter Safety Team released a video titled "56 Seconds." It accurately reflects upon each level within the IIMC decision tree and should be viewed by everyone in the industry. Additionally, as a company, we decided to enhance our IIMC training to include heavy use of simulation and in-aircraft IIMC devices such as the ICARUS electronic view-limiting system.

Strong instrument skills are key to safe instrument flight, but IIMC isn't just another instrument flight. A strong ability to say NO to continued flight in Level One flight conditions will eliminate your entry into the realms of previous Darwin Award recipients.

The data is clear. The information is available. Just don't do it!



Randy Rowles has been an FAA pilot examiner for 20 years for all helicopter certificates and ratings. He holds an FAA Gold Seal Flight Instructor Certificate, NAFI Master Flight Instructor designation, and was the 2013 recipient of the HAI Flight Instructor of the Year Award. Rowles is currently the owner of the Helicopter Institute. He can be reached at randyrowlesdpe@gmail.com



If you have any comments or questions,
please let me know at randyrowlesdpe@gmail.com



READY FOR ANYTHING

We train you to stay sharp, fine tune, and always be prepared—for whatever the next flight throws at you. This kind of training is more than fulfilling a requirement. It is an achievement. And it's reserved for the sky's most elite.

FSI. Nothing short of excellence.

Call +1.201.584.8262 today
or visit [FlightSafety.com](https://www.flightsafety.com)

FlightSafety
INTERNATIONAL



PROTECTING
SOMETHING
GREATER
THAN
OURSELVES

GO BEYOND[^]

LEARN MORE ABOUT
OUR ELITE TEAM

cbp.gov/fly



Air and Marine Operations

From sky to sea, Air and Marine Operations (AMO) Agents serve our nation by commanding a ready fleet of aircraft and operating sophisticated detection systems under a single, unified mission.

Whether responding to a security threat or providing life-saving humanitarian support, AMO Agents collaborate within an elite team of dedicated partners as the first to respond.