Kopter lands in Bayou State

by Curt Epstein

Swiss OEM Kopter selected Lafayette, Louisiana, as the location for its U.S. production and service facility, company CEO Andreas Löwenstein and Louisiana Gov. John Bel Edwards (D) jointly announced yesterday morning at Heli-Expo 2019. Kopter is preparing to freeze the design on its large-cabin, single engine SH09 helicopter ahead of anticipated certification in the second quarter of 2020.

The company expects more than 50 percent of its market over the next decade to come from North America, with orders for 25 SH-09s already on the books from U.S. customers. Thus, the announcement tracks with its stated intention to have production facilities located near its demand centers. A similar facility is also planned for Asia.

Kopter will lease an 84,700-sq-ft facility from the Lafayette Airport Commission, which owns the complex, that was once occupied by Bell as a planned construction site for its 505 light single helicopter. Bell decided to build the 505 at its Mirabel facility in Canada, leaving the Louisiana site fallow.

The state initially funded construction of the $25.3 million facility, which occupies nearly 15 acres at Lafayette Regional Airport/Paul Fournet Field. While the lease on the facility was clear for reassignment, litigation against the former occupant is still proceeding, according to Don Pierson, Louisiana’s economic development secretary.

“We have here a turnkey solution,” said Löwenstein. “It’s a facility that has been built to assemble and deliver helicopters.”

Kaman seeks FAA approval for pilot-optional K-Max

Kaman aims to have the first pilot-optional helicopter certified by the FAA, the Connecticut-based airframer said this week at Heli-Expo 2019. It expects to have such a version of its K-Max heavy-lift helicopter available for commercial use by 2020.

The aircraft, with its unique intermeshing twin rotors, was first certified in 1994 for manned operations, but two were used in a demonstration project by the U.S. Marine Corps in Afghanistan in 2011 to test unmanned capabilities in combat zone cargo deliveries. “It started out as a limited objective experiment and was supposed to fly for 30 days,” said Romin Dasmalchi, the company’s senior director of business development. “It was such a resounding success that three years later they decided to redeploy back to the U.S. after the work was done in Afghanistan.”
Airbus embraces big data

by Mark Huber

Airbus Helicopters (Booth C305) is embracing big data. On Tuesday, the company announced a pair of deals to speed the flow of real-time data from its helicopter to the ground and then have that data expeditiously analyzed post-flight.

Airbus signed a letter of intent (LOI) with Skytrac that will enable Airbus helicopters equipped with Skytrac equipment to transmit flight data directly to Airbus’ ground servers for analysis. The data will be pooled with data collected from other sources to assist Airbus in refining its analytics and thus optimizing costs and reliability.

According to Airbus, about 600 helicopters are currently sharing flight and maintenance data with the helicopter manufacturer across virtually all models. “By opening new pathways and collectively pooling the rich data available, we help operators gain greater visibility into their day-to-day operations and access new tools and analytics for pilot and crew,” said Stephanie Bonnefoy-Fourie, Airbus Helicopters head of connected services.

The output can be used in a safety management system to support decision-making. Flight Analyser users are given access to dashboards that are updated post-flight. The output can be used in a safety management system to support decision-making.

Airbus Helicopters and Skytrac Systems signed a letter of intent for Skytrac’s airborne transmission of flight data to Airbus ground servers.

Helmet heaven for rotorheads

Gearing up for helicopter ing is not only an important element of participation in the rotorcraft industry but it’s also fun, and the crew at Flight Helmets understands that pilots like shopping for accessories almost as much as they like flying.

Airbus Helicopters and Skytrac Systems signed a letter of intent for Skytrac’s airborne transmission of flight data to Airbus ground servers.

This Sikorsky S-92 heavy twin is Everett Aviation’s first, and it is on display at Sikorsky’s booth at Heli-Expo 2019.

Tanzania’s Everett Aviation taking delivery of S-92

East African aircraft operator Everett Aviation has acquired its first Sikorsky S-92, with the heavy twin on display this week at Heli-Expo 2019 (Booth B2507), the fixed- and rotary-wing provider announced.

“Many countries across sub-Saharan Africa are seeing a tremendous boom in infrastructure and civil engineering projects and our new S-92 is ideally suited to supporting those missions,” CEO Simon Everett said.

The helicopter will be the largest of its type to operate in his company’s region, so the S-92 will bring a unique capability to its fleet. Everett will take delivery of the 19-seat helicopter in mid-April and will initially base the S-92 at its headquarters facility in Dar es Salaam, Tanzania.

Everett, which is nearly 23 years old, offers offshore and onshore crew transportation, search and rescue, medevac, external load, aerial survey, and VIP transportation. Its customers represent energy, government, and other commercial sectors. J.S.
Air Medical Group orders 21 Airbus H125s and H135s

by Mark Huber

Air Medical Group Holdings (AMGH) placed an order for 21 new Airbus Helicopters H125 singles and H135 light twins for delivery over the course of the next three years, the helicopter manufacturer announced yesterday at Heli-Expo 2019. AMGH operates a fleet of more than 306 helicopters and 100 airplanes from 320 bases nationwide under six subsidiaries—Air Evac Lifeteam, Guardian Flight, Med-Trans, REACH, AirMed International, and EagleMed.

In 2018, the company merged with ground ambulance operator American Medical Response (AMR). AMGH is one of Airbus Helicopters’ largest customers, with a current Airbus fleet of nearly 85 helicopters.

Fred Buttrell, AMGH president and CEO, said the new helicopters would be used for fleet replacement. More than 700 of the latest version of the H125 are currently in operation around the world. In North America, the H125 is built by Airbus Helicopters Inc.’s facilities in Columbus, Mississippi. To date, the more than 1,300 H135s in service at 300 operators in 60 countries have accumulated five million flight hours.

Schweizer secures $11M fleet order from IDAG

by Jerry Siebenmark

International Defense and Aerospace Group (IDAG) has signed an $11 million deal to buy 25 Schweizer S300CBI helicopters, less than two weeks after IDAG bought the former Bristow Academy, Schweizer announced yesterday at Heli-Expo 2019. Fort Worth, Texas-based Schweizer (Booth B2624) said the deal marks the first commercial sale of the S300CBi since it purchased the helicopter line from Sikorsky last year.

“It’s our pleasure to announce a new service center in France, Copter & Boat’s Dream, which Martin said has been servicing Enstroms for a long time. “But now it’s going to have the full support backing of the factory,” he added. J. S.

Pennsylvania-based IDAG currently has a fleet of more than 50 S300s, as well as an existing company fleet of more than 50 primary, advanced, and tactical training aircraft, including UH-60 Black Hawks. “This purchase allows us to deploy assets across multiple satellite locations as we look to expand operations” inside and outside of the continental U.S., Caldwell added.

In late February, IDAG purchased USATS from a group of private investors, who purchased the flight training school in 2017 from the financially challenged offshore operator Bristow Group.

Schweizer said S300CBI deliveries to IDAG are scheduled to begin in the third quarter of 2020.

The classic S300 got a new lease on life when Fort Worth, Texas-based Schweizer bought the line from Sikorsky last year. IDAG has placed a big order for 25 of the S300CBI models.
Airbus lowers prices for crash-resistant fuel system
by Mark Huber

Airbus Helicopters will make a retrofit crash-resistant fuel system (CRFS) available for its AS350B3 and EC130B4 single-engine models for the first time, which will lower the price of the CRFS, and will provide customers who have already purchased the CRFS at a higher price for other models of Airbus H125 helicopters a credit for the price difference, the company announced yesterday at Heli-Expo. Kits for the B3 and B4 will be available for customers beginning in early 2020.

The company is also offering training credits to customers who purchase CRFS retrofits from third-party providers for earlier H125 variants, including B2 and earlier models. Airbus Helicopters CEO Bruno Even said it was the company’s “duty” to increase the safety of its helicopters.

Any Airbus H125 or H130 family model can be retrofitted with a CRFS either through Airbus or a third-party provider, based on model, and Airbus said it expects to have CRFS as factory-standard equipment on all new-build H125s worldwide by 2020. H135s currently assembled by Airbus in Columbus, Mississippi, are already equipped with CRFS, and the H135 has come standard with CRFS since 2012.

“As an OEM it is our responsibility to take the lead on safety,” said Chris Emerson, president of Airbus Helicopters Inc. “We’re looking to incentivize our customers. It costs money to take an aircraft out of service.”

Airbus Helicopters has been a defendant in several lawsuits for post-crash fires involving its aircraft. Most recently it was party to a $100 million settlement involving the crash of a 2013 AS350B3e in Colorado. The NTSB found that the lack of a CRFS on that helicopter contributed to the severity of the injuries of one of the survivors whose body was burned more than 90 percent in the post-crash fire.

Bell approves 1st U.S. trainer
by Curt Epstein

Flight training provider Universal Helicopters (UHI) has been named as the first Bell-approved and certified training facility in the U.S. In addition, UHI will take over Bell’s recurrent and ab initio flight training for the 206B starting next month.

Arizona-based UHI is establishing a new 8,000-sq-ft Bell-centric training facility in a refurbished hangar at Dallas Executive Airport, near the airframe’s training academy, where it will perform training using a Bell approved syllabus and training manuals for the initial and recurrent courses. It will have access and employee training on Bell’s training registration system, as well as the use of Bell Training Academy 206B simulators.

“We found the ultimate partner to take over some of our legacy training, specifically pilot training on the 206B,” said Sam Nelson, Bell’s general manager for global customer training and head of the Bell Training Academy. He explained that as Bell continues to develop and deliver new helicopter models, it is looking to offload the training for some of its out-of-production models.

“We needed that space and we needed a good partner that we could trust to operate with our logo, and take over some of our legacy aircraft business,” said Nelson.

“For an organization like Bell- Textron to partner with a small company like mine is very unique,” said UHI president and CEO Gordon Brown, who has operated the model since the 1980s. “The part about Bell that seems to stand out is they truly want a good partner that we could trust to operate with our logo, and take over some of our legacy aircraft business,” said Nelson.

Training Academy 206B simulators.

UHI (Booth C4623) will base its two 206Bs at the Dallas facility, one of which is on display at Heli-Expo.

Between its locations in Scottsdale and Prescott, Arizona; Waco, Texas; and Provo, Utah, the company has 55 helicopters in its training fleet.

Avatar in Atlanta?

Looking like a futuristic aerial transport that got lost on its way to the planet Pandora (from the movie Avatar), Bell’s Nexus eVTOL is drawing a consistent crowd at this year’s Heli-Expo. The full-scale Nexus display builds on the fuselage mockup that Bell unveiled last year and features a central wing, integrated landing skids, and a modified V tail topped by a short horizontal stabilizer.
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IT’S TIME FOR A BETTER APPROACH.
Macquarie’s Waypoint buy doubles its leased fleet

by Mark Huber

Australia-based Macquarie Group’s purchase agreement to buy the assets of Waypoint Leasing (Booth C2014) for $650 million provides a lifeline for the helicopter lessor that filed for bankruptcy protection in late November. The agreement, proposed in December, represents a deep discounting of Waypoint’s fleet of 165 helicopters, which the company valued at $1.5 billion in bankruptcy papers filed. Macquarie plans to combine Waypoint’s rotorcraft assets with its own.

A diversified global leasing company with $381 billion worth of assets under management, Macquarie is mainly in the commercial aviation and rail sectors. It entered the rotorcraft sector in 2013 with the launch of U.S.-based Macquarie Rotorcraft Leasing.

Macquarie’s acquisition of Waypoint is expected to close in the first quarter, subject to bankruptcy court and regulatory approval. Waypoint will continue to operate in the ordinary course of business until financial close with the assistance of $455 million of debtor-in-possession financing provided by existing lenders.

The Waypoint acquisition would more than double Macquarie’s existing rotorcraft fleet. Stephen Cook, Macquarie’s global head of transportation finance, said the purchase of Waypoint places Macquarie Rotorcraft Leasing “to be a pre-eminent provider of helicopter leasing and financing products.”

Waypoint’s autorotation into a sea of financially toxic math. Waypoint noted that its overall revenues declined by 12 percent between 2016 and 2017, that fleet utilization rates had declined to 78 percent from 94 percent to 100 percent as late as the 2013-2015 period, and that weighted average lease terms were down to just 2.2 years from 3.1 at the end of 2016.

In 2016, Waypoint was leasing 121 aircraft that generated $135 million in annual revenues; by November 2018 it was leasing 165 aircraft that produced just $106 million in annual revenues. In its bankruptcy papers, the company acknowledged, “The strain on the company’s net revenue has been further exacerbated by the debtor’s extensive orderbook obligations,” noting that it has made $19 million in payments on obligations of $35 million in pre-order payments out of a total of $175 million in remaining obligated pre-order payments.

Through October, the company had assets of $1.62 billion, largely in the form of aircraft, and liabilities of $1.23 billion, a goodly part of that multiple nine-figure loans from the world’s largest banks including SunTrust and Wells Fargo in the U.S., BNP Paribas in France, and Sumitomo Mitsui’s Brussels branch. The company was founded in 2013 with $375 million in seed money from investment entities controlled by billionaires Michael Dell and George Soros, along with Carrebian Capital.

Waypoint began looking for a way out as early as 2016. An attempt to sell the business to an unnamed Chinese entity “at a premium to book value” failed after a 14-month dance. It received a settlement from Airbus related to the H225 groundings and a modest capital infusion from investors. Earlier this year it attempted to negotiate for better terms, including repayment forbearances, with its two dozen lenders and to implement internal economies, but as energy prices failed to hold, not even this was sufficient. Last summer the company again put itself up for sale and also prepared for bankruptcy, as a means of facilitating the sales process.

Waypoint’s helicopter fleet consisted of 25 heavies, three super-mediums, 73 mediums, 41 intermediates, and 23 lights divided across 17 different models and four OEMs with an approximate book value of $1.5 billion. Sikorsky accounted for 40 percent, Leonardo 33 percent, Airbus Helicopters 24 percent, and Bell 3 percent. Waypoint’s leases require all customers to enroll their helicopters in hourly maintenance programs. The heavies included six Airbus H225s that cost Waypoint $156 million for which it has not been able to find homes after the Turoy accident. “There is currently little to no demand for the H225 model aircraft from the debtor’s customer base,” the bankruptcy filing notes.

Weak energy prices, coupled with an aggressive expansion plan, threw Waypoint into a sea of financially toxic math. Waypoint noted that its overall revenues declined by 12 percent between 2016 and 2017, that fleet utilization rates had

### Business Aviation Information Provider

JetNet (Booth B6735) will demonstrate new report software customization features here at Heli-Expo. “Our new features will increase professionals’ productivity and improve our client decision-making,” said JetNet marketing director Mike Foye. “Nearly all of our improvements are based on client and industry input, so we are providing tools our users want and need.”

Additions to JetNet’s popular Market Reports will allow subscribers to customize their reports for clients and internal users by selecting which parameters to display while incorporating their logos and brands. The new features were designed for formal presentations, the company noted. Another new function lets users compare three aircraft makes and models on the same range map, as well as details key flight utilization information. It also includes a dashboard that shows the market absorption rate.

JetNet’s Market Report offers 20 pages of information, including model specifications, range maps, fleet composition, market characteristics and insight, buying habits, and sales trends. The company said its helicopter database has information on nearly 32,000 in-service airframes worldwide, transactions for more than 52,000 retail helicopter sales over the past two decades, in addition to 12 makes and 143 models of turbine and piston airplanes. J.S.
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Airbus – we make it fly
HeliOffshore places focus on data-centric strategies
by Ian Sheppard

In less than five years, offshore helicopter association HeliOffshore has gathered 116 member companies, including 44 operators, to work together on a number of fronts to raise the safety level of an industry that has suffered some high-profile losses at sea over the past decades. It started in October 2014 when the five largest offshore helicopter operators (Avincis, Bristow Group, CHC Helicopter, Era, and PHI) stopped competing among themselves on safety and formed HeliOffshore.

Gretchen Haskins, HeliOffshore CEO

“HeliOffshore has been working with regulators, including the CAA, EASA, and the FAA, over the last couple of years. We believe we can optimize the warning and alerts using offshore flight paths.”

Gretchen Haskins was selected to lead the London-based association as CEO, having been group director of safety at the UK CAA and before that a similar role at ATC provider NATS.

Speaking to AIN ahead of the Heli-Expo 2019, Haskins reflected on the achievements to date in moving toward its stated goal: no lives lost in offshore operations. Given that the key stakeholders in the oil-and-gas sector are collaborating on safety now, the association is taking a data-driven approach so it can measure safety improvements.

“We have two key work-streams: the first relating to the reliability of the helicopter itself and performance in safety-critical conditions, and the second being operational effectiveness—managing the flight path and making sure you don’t hit anything,” Haskins said.

HTAWS Parameters for Offshore Ops
“A snapshot of how HeliOffshore works is HTAWS,” added HeliOffshore communications director Charles Alcock. HeliOffshore views HTAWS (helicopters terrain awareness and warning systems) as a key tool for driving operational effectiveness and has been “working with regulators, including the CAA, EASA, and the FAA, over the last couple of years. We believe we can optimize the warning and alerts using offshore flight paths,” said Haskins.

The organization is collaborating with OEMs, regulators, and operators to advance a new set of parameters more suited to offshore operations (rather than fixed-wing operations). Through these parameters, “we can get another 30 seconds of warning” in some cases—as shown by test pilots in simulators, Haskins said. The OEMs have begun incorporating the new HTAWS approach in their software, and Leonardo and Airbus have already carried out flight test, said Haskins. “The first helicopter to benefit is likely to be the Leonardo AW189 midway through this year,” she said. Leonardo is working on the AW189 too, while Airbus has been developing it for the H225 and H175, Bell hopes to incorporate it for the production-standard G25, and Sikorsky is looking at it for the S-92.

“The specification was created with the UK CAA so it wouldn’t [belong] to any one supplier,” she said. Honeywell has been active in the development, as have other avionics suppliers such as Garmin and Thales of France. “It’s meant to be a level playing field for anyone to be able to adopt and share—it really is a joint effort,” said Haskins, who said EASA’s accident database was particularly useful in identifying which improvements would have the greatest impact on improving safety.

In addition, the International Association of Oil & Gas Producers have signed a letter of intent to support the initiative.

Cooperation on Data
In addition to collaborating on HTAWS parameters, Haskins noted, “operators and manufacturers are sharing data on an unprecedented scale.” HeliOffshore has identified several target areas where it can exploit this to garner better understanding, the two key ones being approach path management (APM)—leading to the creation of new APM guidelines—and the second being flight data monitoring “to see how it’s working in the real world.”

Another major initiative for HeliOffshore is its return-to-base (RTB) study. “We want to get pilots to say if they see any sign of a problem,” said Haskins. Because the evidence is that pilots do have good judgment on this, the main focus is on fixing the root causes to avoid scenarios that would necessitate an RTB. “At Heli-Expo [2019] we will have a very important conversation on actions that can be taken to design out the top RTB factors,” she said.

Alcock further pointed out that HeliOffshore’s Helicopter Safety Intelligence Program is “proving very powerful, as it gives a way of measuring that things are working, and helps to illustrate the business case for more people to implement the changes.”

As the oil-and-gas market recovers and the offshore helicopter fleet grows with a greater number of operations, HeliOffshore believes that incorporating some of the safety best practice from the airline world, adapted for offshore operations, can not only prevent a degradation of the accident and incident rates but also completely revolutionize the level of safety.

It is also about efficiency and having the operators buy in to the real benefits. To this end HeliOffshore has been working on greater standardization of training and Flight Crew Operating Manuals as well, “another thing we have learned from the fixed-wing world,” noted Haskins. She added that the helicopter manufacturers are due to meet later this year to discuss ways to ensure pilots can more easily and efficiently transfer between helicopter types.

Haskins said HeliOffshore is also supporting an initiative to improve crew situational awareness at sea, for example, to avoid “wrong-deck landings.” Part of this is installing low-cost ADS-B transmitters, which also allows data to be sent to helicopters about local weather, rig IDs, etc.

Heli-Expo has served as a venue to support many of the HeliOffshore initiatives. Haskins mentioned the Hazard Analysis Workshop and a Poker Night sponsored by Milestone on the eve of Heli-Expo. This is the third year for the event. The proceeds of the night (over $50,000) go to support HeliOffshore’s work, with winners able to choose the specific projects. “Three years ago, funds went to human factors in maintenance, and this allowed us to engage world-class experts in human factors.” A focus was to avoid errors that could lead to single-point failures, in particular taking feedback from operators.

The HeliOffshore Conference & AGM will take place May 3-6 in Athens, Greece.
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Airbus Helicopters remains upbeat on industry’s future

by Guillaume Lecompte-Boinet

Airbus Helicopters (Booth C305) predicts the rotorcraft market will grow 2 percent to 5 percent over the next few years, even if the oil-and-gas segment remains uncertain. According to an internal study, the company expects delivery of nearly 22,000 helicopters worth nearly $142 billion in all market segments by 2036.

While 1,350 helicopters were delivered industry-wide last year, “This level is below the 2013 to 2014 period, but the market is quite dynamic,” said David Prevor, head of marketing at the Franco-German helicopter manufacturer. In 2013, the entire industry shipped around 2,100 new helicopters. Airbus accounted for about a third of the overall helicopter deliveries last year, shipping 1,350 rotorcraft, down 13 percent from the 1,499 units it handed over in 2017. Billings at the company fell 6 percent year-over-year, to $6.73 billion, in the same time frame. Despite this, gross orders climbed 18 percent year-over-year, to 413 units. “This increase is a positive signal, which allows us to be confident about the future,” said Prevor.

But a dark cloud still hangs over the oil-and-gas segment. “In the past, operators bought new helicopters to expand their fleets. Now it’s a replacement market that is facing oversupply, especially in the heavy segment that will take at least two to three years to be absorbed,” he noted.

In fact, most of the company’s orders over the past two years for its Super Puma family came from other markets, such as the military sector. Last year, Airbus Helicopters received orders for only 17 H225s versus 54 in 2017.

Still, some of these replacement orders could benefit its medium-twin models—the H175 and not-yet-certified H160. Mexican oil-and-gas operator Transportes Aéreos Pegaso has signed for an additional H175, bringing its firm order for the model to four. However, Airbus inked just four orders for this model last year, compared with 19 in 2017. It has a backlog of about 100 H175s remain unchanged from last March.

On a brighter note, the EMS market is much more dynamic for Airbus Helicopters. In the U.S. and Europe, this segment is a replacement market; but in Asia, it is a less mature market that could be a boon for several of the company’s models.

“The light single-engine H125/130 is doing well in the U.S. market for primary EMS missions—patient transport from the accident scene to the hospital,” noted Prevor. Its H135/145 light twins and H160 are better suited for secondary missions, meaning hospital-to-hospital transport of patients. EMS operator Metro Aviation placed an order for 25 H145e helicopters last February for this purpose.

Emerging markets, which includes China and India, also hold great potential for Airbus Helicopters, despite legal or technical restraints in these countries. Much of the airspace has yet to be opened to civil operators in China, where pilot supply and training issues also exist. “It depends on a new aviation ecosystem being built in China,” said Prevor. “But this market is clearly the future of our growth.”

On the military side, 2018 has been “a very good year,” said Prevor. Worldwide defense market share outside of the U.S. has more than doubled in recent years, surging from 12 percent to 25 percent. This is partially thanks to the order from Turkey for 16 H445s and 20 H145Ms, the latter with HForce weapon management.
Dallas Airmotive has reinforced its reach in the Western U.S., bringing on board rotorcraft engine maintenance veteran Charles “Chuck” Hagen. With 25 years of maintenance experience, Hagen was last year’s HAI Rolls-Royce Excellence in Helicopter Maintenance Award recipient, recognizing his accomplishment in managing and supporting helicopter maintenance operators around the world.

He had spent more than 20 years of his time with AeroMaritime. The jump to Dallas Airmotive shifts his territories more toward the Western half of the U.S. Hagen formerly handled a lot of business on the East Coast, but for Dallas Airmotive, his focus is on the southwest U.S., along with states in the Mountain region and Alaska.

Mark Stubbs, chief commercial officer of BBA’s Global Engines Services, which includes Dallas Airmotive plus H+S Aviation, praised Hagen’s dedication to solution-based services for operators. For Hagen, the move to Dallas Airmotive enables him to expand his support for customers. He noted that Dallas Airmotive’s breadth of services across multiple engine platforms enables him to serve as a single point of contact for customers that operate a range of aircraft, as well as continue to support the single-aircraft operator.

Along with accommodating a wider variety of engines models, he said he is able to offer more extensive services, such as an array of inspections, and particularly important to operators is the asset resources on hand, such as engine rentals, that will reduce downtime.

Hagen is optimistic about the opportunities for growth as helicopters have begun flying more, particularly as the firefighting season has lengthened. “The work is coming back and people are flying again,” he said, adding this has increased the need for maintenance. This is not just in firefighting, but other sectors such as air tour, he added.

Hagen joins Dallas Airmotive as it recently completed a consolidation that brought four locations together into a single 220,000-sq-ft engine maintenance and testing facility at Dallas-Fort Worth International Airport. The location employs more than 400 and houses a half-dozen test cells and extensive testing equipment.
Milestone diversifies to counter oil decline

by Jerry Siebenmark

Helicopter lessor Milestone Aviation’s top executive looks to the rotorcraft leasing market in 2019 as “a recovering but challenged market,” president and CEO Greg Conlon told AIN at Heli-Expo 2019. And Conlon doesn’t see a return to the offshore industry’s seemingly insatiable appetite for helicopters before the downturn in oil and gas prices.

“We saw examples where certain end users had a need for maybe three or four helicopters,” he said. “They leased five or six, just in case. As things got tougher, oil went down to the $30s [per barrel] from the $80s or $100, they looked at everything. And now they’re coming back and saying, ‘You know what? We’ve figured out how to operate three helicopters, not five.’ We’ll do two crew changes a month rather than three. Once you do those types of things, even if oil goes back to where it was, you have some of the systemic efficiencies that you don’t unlearn.”

Conlon’s remarks come after the Dublin, Ireland-based lessor (Booth B5204) closed out 2018 with $1.5 billion in aircraft lease transactions. Of that, $900 million was for new leases and lease extensions of its own inventory of helicopters that numbers more than 500 and is valued at $5 billion.

“The key to all this is transitions,” he said. “You really have to focus on, as a leasing company—we’re not a bank, we’re an asset management leasing company—transferring these aircraft from operator A to operator B, and you need to do that in the most cost-effective, efficient, and short period of time as possible. And if you can’t do that when you have roughly $1 billion of assets that’s rolling off every year, you’re going to find yourself in a tough spot.”

The remainder of its lease transactions last year, almost $600 million, was new capital Milestone used for what it called key strategic projects, including the purchase of 21 Leonardo AW139s and five Airbus H145s for Saudi Aramco’s fleet renewal plan, as well as H145 and Leonardo AW169s for helicopter emergency medical services (HEMS).

What once accounted for as much as 80 percent of Milestone’s business—leasing of helicopters for oil and gas exploration—is now about 50 to 60 percent, Conlon explained. “Because you’re really not in a great place if you’ve got 80 percent of your book in one area,” he said. “That’s just not a prudent way to run a financial company.”

The unit of GE Capital Aviation Services has turned to other sectors for diversification of its portfolio since the downturn, such as in VIP and HEMS. “We’re seeing more growth in search and rescue,” Conlon added. “That’s a bigger piece, both municipal work, and private-party work.”

Demand for new helicopters in the offshore sector should resume longer term but not with the same exuberance as before. “We think there’s growth in the space, over the five-, 10-year period,” he said. “We think there is going to be continued oil and gas exploration.”

But the need for new equipment will be tempered by a more cautious market with fresh memories of the last downturn. “In our view, I think it’s more let’s soak up the demand that’s there and once that’s stabilized, then we can talk about the new stuff,” Conlon said.

OPS signs exclusive distribution deal

Operations, Procurement & Supply Chain Services (OPS) has entered into an agreement to become the exclusive distributor for Tecnologie Industriale e Aeronautiche (T&I&A) commercial and military aviation products. The Italian manufacturer specializes in the design and production of high-performance insulation products, gaskets, and protective covers for aircraft.

As the exclusive distributor, Pompano Beach, Florida-based OPS will be responsible for selling, ordering, warehousing, performance of aftermarket product distribution, and coordinating the repair of genuine T&I&A parts, which also include finished aircraft thermal-acoustic insulation panels and sleeves, metallic insulation, and high-temperature insulation blankets.

“We are proud to join forces with T&I&A and supplement their advanced products and design capabilities with our supply-chain and customer-support solutions,” said OPS president Luca Pastore. “The agreement with T&I&A is an important milestone in ensuring efficient and cost-effective support to our customers, and demonstrates our continuous commitment to offering world-class products and services.”
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Helicopter insurance woes are ‘already in full swing’

by Mark Huber

Helicopter owners are in for major sticker shock when they receive their next insurance premium bill, particularly private pilots and small commercial operators. So counsels Matt Drummelsmith, president of insurance brokerage Aviation Specialty Insurance (Booth B4926). Drummelsmith said premiums are in some cases even doubling, while some carriers are dropping customers and others are refusing to underwrite entire policies.

Drummelsmith said the carnage “already is in full swing” and no one is immune. “It doesn’t matter what your size, scope, or experience is,” he said. “Some carriers are not even quoting at this point and those that are are taking a much harder look at pilots and operations. Things that could be underwritten six to eight months ago are now being declined, the policies that are being written have heavy restrictions, and some premiums are even doubling. It’s a much harder process,” especially for new helicopter buyers, cautioned Drummelsmith.

A low-time pilot in a Robinson R44 could easily face premiums of up to $20,000 a year in this environment, he noted. Drummelsmith said the premium increases are being fueled by ballooning accident settlement costs that can now run into seven figures, especially with EMS operators. “Carriers don’t want any new liability in this segment,” he said. “And they quote accordingly.”

Demise of the ‘Slam Dunk’ Policy

In his own practice, Drummelsmith gives the example of the difficulty obtaining insurance for a client with a Bell 429 that is dual-pilot professionally flown. “This client should have been a slam dunk for any carrier out there,” he said. Instead, Drummelsmith needed to find several carriers to take on portions of the policy. He said policies for large helicopters now sometimes need as many as five carriers to share the risk.

While premiums that double are on the extreme end of the spectrum, Drummelsmith warned that even good operators with good safety records are in for pain. “Low-risk Part 91 operators will likely see increases of between 5 to 10 percent, while an EMS operator with 15 to 20 claims of any kind, which is not all that uncommon, will easily see premium increases above 20 percent,” he said. New buyers, who operate single-pilot will take the biggest hits. Drummelsmith said that those operators can get insurance, but with large deductibles, sometimes as much as $250,000. Even then companies are increasingly reluctant to insure for anywhere near full hull value, sometimes leaving aircraft owners with an insured exposure equivalent to 15 to 25 percent of the aircraft’s value.

Ironically, the premium increases come at a time when the overall accident rate, particularly the fatal accident rate, for helicopters is trending down dramatically. But, Drummelsmith insisted, that doesn’t matter. “Even if accidents are down, it doesn’t mean they aren’t severe; insurance companies base premiums not on the count, but on the amount of the claims paid,” Drummelsmith said, noting that individual helicopter accidents now can trigger settlements up to $500 million. Those potential liabilities are driving some insurers from the marketplace.

It’s already happening in Europe, he said, noting that nine European aviation insurance syndicates closed their doors or merged in recent years, and two more carriers closed in the U.S., including W.R. Berkley. “Smaller carriers, mainly of aviation insurance, don’t have the capacity to write policies with 10- to 20-million-dollar limits anymore,” Drummelsmith said, “and big carriers don’t want to be hit with writing a massive check.” The situation overall is creating “a hell of a lot more work for people in the brokerage world,” he said. “We spend most of our time just trying to keep clients in comparable policies at a reasonable rate.”

While larger settlements are driving some of the rate increases, so is the downturn in the lucrative medium and large helicopter operator segment that services the offshore energy industry. With substantially fewer helicopters flying in that market, the aggregate amount of premiums paid has declined and insurers need to make that money back on the remainder of helicopters flying, a spokesman for one helicopter OEM told AIN.

The impact of all of this could be substantial on both the used and new helicopter market, said Jason Kmiecik, acting president of HeliValue$ (Booth C1417), the helicopter sales tracking and valuation firm. “This is going to put a large hurt on some operators,” he said, possibly to the point of forcing some operators out of business, and depressing helicopter prices. “This market does not need any more machines for sale than it already has,” he said.

Drummelsmith thinks the rate hikes are temporary, but there really is no effective way an operator can shield from the impact. “Once the market corrections, it will be back to a buyer’s market,” he said.
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Hillsboro Aviation rebrands, spotlights continued growth

by Kerry Lynch

Over the past three years, aviation services company Hillsboro Aviation (Booth C4628) has opened its new corporate headquarters and hangar, added a half-dozen turbine aircraft to its contract flying fleet, and now is wrapping up a rebranding initiative that highlights its continued growth.

The rebranding is providing an opportunity to showcase a company that began in 1980 with a single helicopter and has grown into a global business with more than 90 employees and varied operations that range from contract operations to aircraft sales, services, parts, charter, and management. A culmination of a few years, the rebranding includes an interactive updated website with “relationship-centric” customer portals. The bulk of the rebranding is complete, but a new look is still in the future for its Heli-Expo booth.

The rebranding also enables Hillsboro to spread the message that as the company approaches its 40th anniversary, it is continuing to invest and expand in core businesses, said Rekha Lyons, director of marketing and communications.

This message is particularly important because four years ago, Hillsboro had sold its flight school. Acquired by Renovus Capital Partners and Graycliff Partners, the flight school had become a major piece of Hillsboro’s operation, expanding into a business that involved 74 aircraft and six simulators. Training students from more than 75 countries, the school had become a key part of Hillsboro’s identity and remained a part of it for a few years after the sale.

“We realized when we sold the school, we had been known internationally as a flight school and we want to make sure people know we are still growing,” she said.

By the time of the sale, Hillsboro had grown to 16 profit centers, added Max Lyons, owner and president of the company. With its sale, Hillsboro subsequently turned its attention to investment in its remaining business. This resulted in the 2016 opening of its state-of-the-art 31,000-sq-ft facility that represented an $8.5 million investment. Hillsboro also has added five turbine helicopters—two Bell 206A-1++ and three H125s (AS350 3Bc)—to its fleet over the past 30 months, along with a Beechcraft King Air.

The additions brought its fleet to 14 turbine aircraft that provide support for firefighting, search and rescue, natural resources, aerial survey, construction, and numerous other activities.

This investment has come with cautious optimism, Lyons said. Noting the economic uncertainties that the helicopter community has weathered over the past decade, he said Hillsboro also faced challenges—including the cancellations of $50 million in aircraft orders. But at the same time, Hillsboro also was able to stay profitable as its different businesses provided balance. Its parts business, for instance, has grown exponentially in some years and is still growing.

Its contract flying in support of firefighting has remained solid business for Hillsboro. In fact, it has become so demanding that a season that once ran six to seven months is stretching to nine months, and that is presenting logistical challenges and requiring additional support.

Also, Lyons said he is beginning to see improvement in the aircraft sales side, particularly for light helicopters.

“Building a company like this, you have optimism and confidence,” he said. “I don’t have specific levels of confidence in the global economy...what I am confident in is our ability to navigate through it.”

One of the keys, stresses Lyons and Hillsboro v-p and COO Ryan McCartney, is that the Hillsboro team focuses on personal relations in an industry that has become focused more on operational and transactional relationships. McCartney said Hillsboro took this approach in designing a facility with green technology and would attract a variety of customers. The facility incorporates Pacific Northwest detail including Douglas fir accents, a fireplace, and local artwork.

But that same approach extends to the workforce, McCartney added, noting that the facility has an “exceptionally large” number of long-time employees. Retention is particularly important when competition for new hires intensifies.

As for the future, Lyons said the company is eyeing development of nearby property for warehouse space, and McCartney added that additional hangar space may be a possibility. “Even though we’ve only been in this building for three years, we’re already starting to outgrow it,” he added.
Leonardo is committed to enhancing its footprint in the US, offering customers the best training services and solutions. A brand new Training Academy will introduce game-changing innovation in the traditional training concept, shaping the first ever civil TiltRotor training model. Safety, quality and efficiency will be at the heart of the Academy which will provide customers with state-of-the-art training environments, including a wide range of devices and simulators to support all phases of training and satisfy any type of mission.

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Mecaer Group delivers a landmark VIP Jet Ranger X
by James Wynbrandt

VIP rotorcraft interior specialist Mecaer Aviation Group (MAG, Booth C2639) delivered the first Bell 505 Jet Ranger X in North America outfitted with Mecaer’s MAGnificent interior to Canada’s Helite Aviation in a ceremony yesterday at Heli-Expo 2019. Helite will use the Bell 505 for VIP transport from its downtown Montreal heliport and anticipates strong demand for the five-place light single.

“The people who charter from us are walking out of a chartered jet or coming out of an expensive car,” said Mathieu Norman, Helite’s co-owner. “They’re expecting an aircraft with leather and a great finish. When you have a brand-new, VIP-configured aircraft with a bespoke Italian interior, that’s sex appeal.”

The MAGnificent interior includes all interior panels; seats (built up from standard frames) and leather upholstery; low-pile carpeting; and a rear passenger service unit with adjustable reading and device holders, and leather-wrapped flight control boots. Customized logos can be embroidered onto headrests and engraved into door thresholds. An optional, removable center cabinet with small infotainment system can replace the middle of the three rear, forward facing seats. The installation kits are “100 percent produced in Italy at the Cabin Comfort Systems headquarters” in Montependone, said Maximo Pugnali, MAG president. Installations are performed at the company’s U.S. facility at Pennsylvania’s Northeast Philadelphia Airport (PNE).

The MAGnificent interior borrows elements from the MAG VIP interiors created for the Bell 429 GlobalRanger light twin and forthcoming 525 Relentless, but “doing a smaller helicopter was a challenge,” said Pugnali. More sporty than plush, the installation brings panache to what is often an owner-flew platform, and weighing less than 70 pounds, the option “will be a no-brainer” for VIP buyers, Pugnali said.

Of the more than 100 Bell 505 Jet Ranger Xs ordered thus far, 20 to 30 percent are opting for the MAGnificent interior, said Grayson Barrows, MAG’s director of marketing and sales.

Having decided to buy a Jet Ranger X, Helite bought the interior upgrade “on the spot, unseen,” after reading about it and meeting with MAG, Norman said.

Regarding the Jet Ranger X purchase, he added Helite was “impressed by the increase in performance compared to a regular Jet Ranger” in climb rate and cruise speed. “It’s a time saver for the same operating cost.” Additionally, compared with some other helicopters in class, the two-blade configuration makes storage easy. “I can stash six in a hangar and still have plenty of room.”

The MAGnificent upgrade costs about $100,000 to $120,000, and can be installed as a retrofit in legacy 505 Jet Ranger Xs. MAG will perform some at PNE, but kits can be shipped to any Part 145 facility that has the Bell 505 on its capabilities list for installation.

Given the upgrade’s appeal and the target customer, MAG hopes to notch more orders at the show. “The type of clientele that is going to be looking at this at the booth are the kind of people who make decisions and sign contracts on site,” said Barrows.

Also being shown at Heli-Expo, along with images of the MAG VIP interior for the Relentless, are new renderings of its VIP cabins for Leonardo’s AW139 and Airbus Helicopters’ H145. MAG is also displaying torque pedals, flight control systems, control surfaces and other rotorcraft components it manufactures for OEMs.

Aero Products looks to expand Bell 429 field-maintenance success to other models

New and anticipated demand prompted Aero Products (Booth C5035) to add Bell 429 field maintenance to its component overhaul services. The company is now working to do the same for Bell 407s and 206s, the Bell-approved service facility announced at Heli-Expo 2019. These service additions are designed to position the company to meet anticipated municipal and community needs.

The decision to add Bell 429 field maintenance comes after the Arizona Department of Transportation and Salt River Project each acquired new 429s in 2018. “We felt it our responsibility to add the Bell 429 to our capabilities; in this way we can continue to provide both AZDOT and SRP complete support,” Aero Products president Ted Johnson said. One Aero Products technician has received 429 field maintenance training, and a second technician is currently receiving the training at the Bell Academy in Fort Worth, Texas.

Three regional wildfires over 14 years near Show Low, Arizona, where Aero Products is based, is leading the company to add field maintenance for the Bell 407 and 206 series. “Eastern Arizona is a staging ground for aerial fire support,” Aero Products v-p Jeff Winn said. “With two hangars already on the airport, it was an easy decision to support operators with fire contracts.” J.S.
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Aviation Specialties joins ranks of NVG OEMs

by Curt Epstein

For nearly a quarter-century, night vision imaging system specialist Aviation Specialties Unlimited (ASU) had been known solely for selling and servicing night vision goggles (NVG), modifying cockpits, and conducting night vision training. It is now spreading its wings as an OEM, with its first self-designed and manufactured NVG, the lightweight E3, which it unveiled this week at Heli-Expo 2019.

“The industry has been asking for a lighter-weight solution for night vision goggles for years,” said company president Jim Winkel, adding that every gram of weight matters. “We were able to take more than 200 grams of weight off of the NVG user’s flight helmet, while improving functionality and performance.”

With flight testing complete and environmental testing underway, the company expects to have the E3 in production by the third quarter. The Idaho-based company is offering a special introductory price—commercial customers who commit to pre-order the first 100 of its new E3 lightweight night vision goggles (NVG) can purchase them for $11,995, which will include the Aeronox mount and battery pack along with a one-year warranty. Heli-Expo showgoers can demo the E3 goggle at the ASU booth (C1435), and down payment is due when ASU sets the official production dates.

“Most don’t realize that ASU has been conducting imaging and electro-optical research and development for years,” said Joseph Estrera, the company’s chief technology officer. “The introduction of the new E3 affirms that ASU is not solely a value-added reseller, but is in fact now an original equipment manufacturer.”

The company will also continue to sell and service existing NVGs and remains authorized to repair and service products from L3 and Harris, according to Winkel. “ASU has a long-standing record of working with the goggle OEMs and will continue to foster those relationships to continue to meet the needs of the industry in the best way possible.”

HFI Awards scholarships worth $70,000

Helicopter Foundation International (HFI) is awarding $70,000 in scholarships to 20 recipients this year. “The cost of education in aviation is high, both for pilots and maintenance personnel,” said Allison McKay, v-p of HFI, the charitable arm of HAI. “Through the scholarship program, we help to offset this burden and allow the students to focus on continuing their education. We offer our congratulations to this year’s recipients and encourage students around the world to apply for 2020 scholarships.”

Recipients of $5,000 scholarships to pilots working toward their commercial rating are: Sakaya Arai of Beverly Hills, California; Charles Beesley of Cole Camp, Missouri; Melissa Cooper of Kona, Hawaii; and Joyce Yu of Portland, Oregon.

New flight training scholarships at Southern Utah University, worth up to $20,000 were awarded to Brendon Peterson of Ionia, Michigan; and Kaylee Elliot of Cedar City, Utah.

Recipients of $2,500 scholarships for students in maintenance technician programs are: Evan Falk of Holt, Michigan; Tracy Geest of Tremonton, Utah; Hamin Kim of Williamsport, Pennsylvania; Michael Ranker of Laurel, Maryland; Noah White of Cornerbrook, Newfoundland-Labrador, Canada; and Carlos Ybarra of Waco, Texas.

And the recipient of the Michelle North Scholarship for Safety, which provides full tuition to the HFI Safety Management program at Heli-Expo, is Joshua Chason of Braselton, Virginia.

HFI also oversees the Bill Sanders Aviation Maintenance Scholarships, administering the program on behalf of the HAI Technical Committee. Recipients (and sponsors) of scholarships and stipends (up to $1,600) are Paul Pelletier of Columbia, Connecticut (Airbus); Cody Bentzel of Williamsport, Pennsylvania (Leonardo); Ethan Mutschler of Mifflinburg, Pennsylvania (Pratt & Whitney); Klaide Kerr of Timmons, Ontario (MD Helicopters); Daniel Galica of Tinley Park, Illinois (Honeywell); Evan Falk of Holt, Michigan (Rolls-Royce); and Cullen Thompson of Mountain, Ontario, Canada (Safran Turbomeca).

The application process for HFI’s 2020 scholarships begins in August.
Approval soon for Lord tail rotor bearing

R. Randall Padfield

Lord Corp, well known in the helicopter industry for its tension-torsion (TT) straps, is bringing to market a new elastomeric tail rotor bearing (TRB) for the Airbus Helicopters AS350 that promises longer intervals between visual inspections and shorter downtime. The company, which is finalizing validation testing on the TRB parts, said FAA approval is imminent.

According to Lord, the current requirement for the OEM tail rotor bearing is a visual inspection every 10 hours and a comprehensive inspection with complete disassembly of the tail rotor every 600 hours. The Lord TRB is expected to provide extended life to this flight-critical part, which should lower maintenance and direct operating costs.

“An AS350 helicopter is typically flown between 300 and 600 hours a year,” said Rodolphe Leroy, Lord manager of global aftermarket sales and marketing. “In most cases, the bearings do not reach this mark and are replaced before reaching 600 flight hours. The intent of the design is to make sure there will be no unscheduled removal.”

Separately, Lord announced that EASA certified its TT straps and the company is offering them directly to the European market. Leroy said the direct sales will provide “our customers in multiple countries all the savings associated with buying direct, while avoiding the risks and uncertainties that often come with STC parts.”

On Monday at Heli-Expo, Cary, North Carolina-based Lord (Booth B4006) once again conducted its training course on the construction, functions, maintenance, and inspection of various types of elastomeric components. Presented as a manufacturer technical briefing, the training course meets FAA requirements for recurrent training and is admissible for Inspection Authorization certificate renewal.

According to Lord customer manager Francis Magnan, who presented the training, elastomeric components are not always understood by maintenance personnel and pilots, who are often required to inspect them at regular intervals, even though they are used extensively on all modern helicopters. “Our experience has shown that too often parts are removed prematurely due to misunderstanding of the construction and workings of these complex components.”

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Deborah Wells, most recently with United Technologies, has joined BBA Aviation’s Global Engine Services (GES) as vice president of strategy and business improvement. In this capacity, Wells will lead the integration of GES’s core operations, which comprise engineering, quality, and continuous improvement, with global strategic planning.

“Deborah is a strong asset with a track record of success spanning aviation’s corporate, airline, and government sectors,” said Hugh McElroy, president and COO of Global Engine Services. A native of Texas, Wells will oversee GES’s global strategic operational and business improvement.

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Delivering integrated mission systems to the warfighter.
HeliSpeed needs more pilots by Ian Sheppard

HeliSpeed (Booth B3424) is seeking more pilots for its database and has announced the creation of a new training school, mainly to offer type rating training. Company CEO Geoff Packer told AIN that the company’s primary reason for attending Heli-Expo this week in Atlanta is to attract FAA-licensed pilots to use its HeliTrax service for connecting pilots with vacant positions. “FAA pilots are more widely accepted than any other license,” he pointed out.

“There isn’t a pilot shortage [in our sector]—how many do you want?” Packer said. But he does admit there is a “skills shortage, which is very different.”

The company has found a niche providing pilots for all sorts of operations, with operators realizing the savings they can make by not having pilots sitting idle on the payroll, just so they can be ready for the peaks in demand. “I set it up partly to keep myself in a job [as a helicopter pilot] and at the time I had friends who flew 225s who were struggling to find work, following the crashes and the downturn in oil and gas,” Packer said.

Matching pilots with demand from operators has proved an invaluable service in an industry where there is such a diverse range of flying experience, and by having a large number of pilots on its HeliTrax database now it can quickly put together a shortlist for any requirement, he noted.

“For example, we may be asked to find a Super Puma pilot who’s familiar with firefighting—this is an actual case—and we can do it anywhere in the world,” Packer said.

Another example was a company seeking a pilot to fly a Canadian-registered helicopter in Indonesia.”

According to HeliSpeed operations director Gemma Walker, “We currently have more than 700 pilots stationed around the world, with certifications to operate more than 90 different types of helicopter, and we’re continuously seeking to add experienced pilots to our team. We can provide organizations around the world with highly qualified and experienced pilots at short notice.”

The company also manages aircraft and logistics, often sourcing pilots to do ferry ad positioning flights for clients. But its “peak shaving” idea has quickly caught on as operators can provide pilots to people that need them when they don’t, offering their services through HeliSpeed to another operator, even though they remain on the payroll of the former operator. “If you have spare pilots and have a slack period but don’t want to get rid of them, as it costs so much for training, you can deploy them with another company.”

Prompted by difficulties sometimes finding pilots with the right type ratings and pilots who need to transfer types to find a job, HeliSpeed said that it is starting an aviation training school, also based at Blackpool Airport. “We have been working on it for six months and are hoping it will be up and running by April 1,” said Packer. “We’re looking to build new facilities and hangarage. We know there is a skills shortage and believe we can help to satisfy the demand.” He is also keen to ensure top-quality training and will also offer PLL training, but focused on pilots who want to go commercial.

Blue Sky Integrating ATU Data Required for Firefighting

Blue Sky Network (Booth B1424) is now integrating additional telemetry unit (ATU) data to its hardware and software solutions.

This includes incorporating Olympic Aero Services’ Series 606 ATU into Blue Sky’s SkyRouter. The FAA-approved ATU records firefighting data and sends it to a remote portal via the firefighting aircraft’s automated flight following (AFF) system. U.S. Forest Service 2018 regulations require firefighting helicopters to collect ATU data and transmit it to state and national regulators through an AFF device.

Required data to be reported in the AFF format includes tank or bucket openings and closings, gallons filled and dropped, events with GPS data, time, latitude, longitude, altitude, speed, and heading. ATU data can now be integrated with Blue Sky software and hardware and transmitted via the Iridium satellite network to the AFF’s central fire suppression database.

The Series 606 ATU supports helicopter aerial firefighting operations for both airborne-mounted water tanks or water buckets. Current Blue Sky Network D1000 customers will have access to the ATU format upgrade for free. Blue Sky also offers the 606 ATU for purchase. The system integrates with the HawkEye 7200a aircraft tracking system.

ABI Develops New Restraints for Bell Helicopters

Airbus Helicopters’ (Booth C3404) is a provider of restraints and has developed OEM-substitute four-point crew and three-point passenger restraints that are manufactured to a TSO standard for Bell 429, 407, and 206 series helicopters.

“We are very happy to offer choices for the customer and are excited about bringing more standard catalog restraint aircraft models to the market,” said ABI v-p of business development Steve Meyer.Bell catalog restraints are available in black, tan, and gray. A unit of Onitic, ABI (Booth C3404) is a provider of restraints to Textron Aviation, Bell-Boeing, Leonardo, Twin Commander, and Sikorsky, as well as military programs and customers.

Honeywell Expands Helo Connectivity Solution

Honeywell Aerospace (Booth C307) has developed a new, compact satcom device for helicopters and racked up another STC approval for its Aspire 200 connectivity system, the Phoenix-based company announced Tuesday at Heli-Expo 2019. Its new digital Mission Communications Terminal (MCT) satcom controller will offer two-way voice, the push-to-talk functionality between dispatchers and flight crews, as well as provide weather and mission updates.

Colorado-based EMS helicopter provider Air Methods, which operates 300 bases in 48 states, is the launch customer for the MCT, with plans to upgrade its helicopter fleet with the unit. The MCT controller, available for delivery in late spring, is the smallest satcom controller that supports all Iridium-based services, Honeywell said.

In a related announcement, Honeywell said its Aspire connectivity system has been approved by the FAA for installation on the Bell 429. The light twin joins the Leonardo AW139, Airbus H125, and Sikorsky UH-60 Black Hawk with approved STCs for the satcom system, which uses the Inmarsat SwiftBroadband network.

Leonardo Testing RFID Tags To Monitor AW189 Components

Leonardo and Gulf Helicopters of Qatar are testing Radio Frequency Identification (RFID) tags on the latter’s fleet of AW189 super-medium, twin-engine helicopters. Approximately 60 major components of Gulf Helicopters’ AW189 fleet will be RFID tagged, allowing automatic downloading of data when the aircraft returns from a mission via dedicated smart tag readers. The pilot project is planned to be completed by mid-2019.

Once fully available, RFID solutions will be available for all Leonardo Helicopters models and will be retrofitted at customer option. Leonardo said its RFID pilot project is part of the company’s wider digitalized service initiatives that include the Skyflight mission planning mobile service, Helilink product support engineering assistant, training predictive/adaptive learning, and Heliwise/HUMS.

Dart Gets Canadian nod for New Emergency Float System

Aircraft Belts Inc. (Booth C2010) received STC approval from Transport Canada for its new EC130/H120 emergency float system (EFS). Suitable for both the legacy EC130B4 and current-production H130, the system offers two improvements over the previous version: compatibility with OEM fixed provisions and the addition of quick-release fittings, which will allow for a 70 percent of the kit’s weight to be removed in less than five minutes without any tools.

The system is approved for the latest gross weight on the H130 and features a sub-free electro-mechanical valve of corrosion-resistant steel. As an option, customers can select an integrated liferaft on both float bags, which can accommodate up to six passengers.

“Versatility is the key in the light single segment,” noted Wesley Reid, the company’s product strategy and business development manager, adding that was the impetus behind using quick-release fittings to easily change the helicopter’s mission. “This kit will suit the needs of a VIP customer just as easily as the sightseeing or utility operator trying to get the most out of their aircraft.”

According to the manufacturer, the EFS has 18-month inspection intervals offering reduced maintenance costs. The floats can be inspected at the company’s Broussard, Louisiana facility or newly established service center in Amsterdam, as well as at any Dart-approved service center.
Leonardo taps CMC sensor for 1st GBAS approaches

by Jerry Siebenmark

Leonardo Helicopters’ AW189 P5 prototype recently completed multiple ground-based augmentation system (GBAS) satnav approaches at Zurich Airport using CMC Electronics’ CMA-6024 Landing System Sensor Unit as the precision approach sensor, the unit of Esterline (Booth B4724) Avionics Systems announced Monday at the opening of Heli-Expo. “We are proud of this latest milestone and confident that Leonardo and other customers will appreciate the CMA-6024’s performance, reliability, versatility, and ease of installation,” Esterline president Michel Potvin said.

In other news announced on Monday, Esterline said CMC signed an agreement to partner with MRO provider StandardAero on rotorcraft retrofits. Under the agreement, CMC and StandardAero will jointly pursue new business for upgrades to medium- and heavy-lift commercial, military, and government helicopters.

“We expect to deliver meaningful cost and logistic benefits to helicopter owners and operators using our combined installation expertise and world-class avionics solutions, creating a whole that is greater than the sum of its parts,” Potvin said.

Esterline’s piece of the partnership agreement would include CMC products such as 10-inch smart MFDs, rugged displays, CMA-900 flight management system, CMA-5024 GPS hardware, and optional Doppler, and electronic flight bag equipment. StandardAero will offer customized integration and engineering.

 Luxaviation launches heli charter network

Luxembourg-based Luxaviation Helicopters has launched a network of charter operators offering global access to more than 70 VIP-outfitted rotorcraft. Members of the Luxaviation Helicopters Charter Alliance include U.S.-based Heli-Flite; Azur Hélicoptères de France; UK-based Starspeed; and ExecuJet, with rotor fleets based in Mexico and South Africa. Starspeed, a Luxaviation Helicopters subsidiary, operates a fleet of some 25 helicopters primarily dedicated to serving superyachts around the globe.

According to Luxaviation CEO Charlotte Pedersen, more than 5,000 helicopter companies are in business worldwide, “but when you want to charter one in a local area, on Google you can find 50 companies, but you don’t know if they’re an operator or a broker or their safety record. So I sensed there was a need to establish a global network of [vetted] operators.”

Pedersen likens the network to airline alliances, in which members adhere to common standards, but said the model hasn’t previously been applied in the rotor world because “helicopters tend to fly locally.” Luxaviation is currently working with Wyvern to create an auditing and approval process for prospective members.

The alliance has been in development for the past 18 months and tested last summer in a trial with Heli-Flite in the New York market, in which Luxaviation promoted the U.S. company’s service on its website. That resulted in a 20 percent boost in Heli-Flite’s web traffic and more inquiries about its services.

Though not exhibiting this year, the Luxaviation Helicopters alliance team is at Heli-Expo 2019, meeting with operators and partners. Going forward, the alliance is “not looking for specific numbers” of members or helicopters, but wants to have “companies in different regions, in interesting cities, in places where people need helicopters,” Pedersen said.

The alliance prefers that members have at least one twin-engine helicopter, but operators who otherwise meet the alliance standards could be members in regions where no twins are available, said Pedersen. There are also plans for the alliance to partner with airlines to offer premium customers first- and last-mile service, she said. J.W.

App for that yacht helipad

by Mark Huber

Building a superyacht and want to include a helipad? Airbus Corporate Helicopters (ACH, Booth C305) has an app for that. The augmented reality tool is downloadable from the Apple iTunes or Google Play stores. ACH CEO Frederic Lemos said the tool provides a starting point for yacht builders and owners who want the “must have” convenience of instant lift and want to avoid headaches associated with adding it too late in the design process.

“Too many times we were seeing helidecks built on these yachts that were not commercially compliant or were not built with the best dimensions for safety and comfort,” Lemos said. He recalled a recent visit to a new superyacht in Italy.

“The captain was so proud of the helideck on the bow, but it was only nine meters, barely big enough for a Robinson R22, and certainly not large enough to do commercial operations. Even if it were 12 meters, operating with an ACH135 would be very tight.”

This scenario was not uncommon, so ACH decided to build the yacht app. It includes information with regard to helicopter models, weights, dimensions, and capacities, rotor diameter, tie-down points, blade and fuel storage requirements, commercial regulations, and necessary support structures, among others. “The app uses augmented reality that displays three popular types of yachts, shows how various models of helicopters look on the yacht, and shows if there are any obstacles. We can also 3D model their yacht via a private space on the app,” Lemos said. The app gives 360-degree views along with data blocks that display individual helicopter model range, weight, and passenger capacity.

Lemos noted that a major yachting publication recently identified the helipad as the second most popular design feature on modern superyachts and that a new generation of owner of these vessels are pushing them to extremes, staying at sea for longer periods and sailing to more exotic and harsher destinations such as Antarctica as opposed to the traditionally more placid waters of the Caribbean and the Riviera.

“People want helicopters to explore when they reach very remote locations” on their yachts, he said, adding that of the 10 ACH145s sold in 2017, six were destined for duty on superyachts. He said that the trend was not just for bigger boats, but bigger helicopters on them, noting that ACH has received orders for ACH175s and ACH160s destined for superyachts in recent months.
Light twin sales lift used helicopter market

by R. Randall Padfield

Retail trades of preowned helicopters were up 9 percent across all helicopter configurations and weight classes last year, with the light-twin market leading that increase, according to the inaugural Preowned Helicopter Market Trends report released by newly established Aero Asset.

Co-founders Emmanuel Dupuy, William Sturm, and Valerie Pereira announced the formation of Aero Asset, a new global helicopter brokerage, this week at Heli-Expo 2019. All are experienced helicopter sales specialists who formerly worked for Avpro. Dupuy and Sturm are leading sales at Aero Asset, while Pereira, a specialist in aircraft market research, is the director of business development and research.

“We believe the time is right for an independent, advisory-focused helicopter brokerage,” Dupuy explained. “The preowned market took an upturn in 2018, after several years of flattlining, and we look forward to the trend continuing on an upward curve.”

At the same time, the Aero Asset executives released the Preowned Helicopter Market Trends Report for 2018. Based on the firm’s proprietary intelligence and knowledge of the market, the report focuses exclusively on the twin-engine preowned helicopter markets, ranking the best and worst markets in 2018. It also provides analyses of 15 twin-engine helicopter models in the light, medium, and heavy categories, from the Airbus H135 to the Sikorsky S-92A.

For instance, the report finds the sales for the Bell 429 fleet up 30 percent year-over-year. Meanwhile, the report is calling the EC225/H225 volume “opaque” and “cloudy,” finding a retail trading range of between $1.5 million and $8 million.

Overall, the report detailed 50 sales of light twin helicopters last year, a 13 percent increase, while 44 medium helicopters traded hands, unchanged from 2017. In the heavy market, three helicopters were tracked as sold in 2018.

Preowned twin-engine helicopter prices range from sub-$1 million at the very bottom—the Airbus H155/EC155B1 and Leonardo A109E Power—to more than $12 million for the top end marked by the Sikorsky S-76D. Absorption rate—the amount of time it would take to deplete inventory at current sales levels—varied from 1.6 years for light helicopters to 2.8 years for mediums to five years for heavy. This rate was lower year-over-year by double digits across all weight classes, with that for the medium helicopter category down 48 percent, from 4.1 years in 2017.

“Brokers and dealers cultivate a short view of the markets, leveraged by intel from past deals and best buys available for sale,” said Dupuy. “This data is very refined. This report aggregates 2018 helicopter trading intel and compares it with the previous year and leverages key comparative indicators.”

Toronto-based Aero Asset plans to publish its market report quarterly going forward.
Av-Base brings a new look, information to WinAir site

by R. Randall Padfield

Av-Base Systems of London, Ontario (Canada) has rolled out the latest version of its WinAir website. The new site provides easier access to information, services, and features of its WinAir V7 aviation maintenance software packages in a tailored format for a variety of organizations. More than 15,000 users in at least 30 countries use the system to manage the maintenance activities of more than 9,000 aircraft.

“The idea behind the website revamp was to provide users with the important information they are seeking,” Chris Lawn, WinAir marketing specialist, told AIN. “We wanted to tailor the online experience to the various industries that use WinAir, along with the key industry user roles that use the product.”

These include packages for all sizes of airline, charter, and special-mission operators; civil and military helicopter operators; MROs; and continuing airworthiness management organizations (CAMOs). The website includes several images of the desktop functions for each of these packages. In addition, the site details services to enable the transition to the software packages.

Being browser-based is an important feature of WinAir: “Users can access the system anywhere in the world, as long as they have an internet connection,” Lawn explained. “For helicopter users, for example, this puts them in a position where they are always ready because they can access their maintenance and inventory information at any time.”

Av-Base Systems is also using the website to attract potential WinAir customers by posting content such as blogs and news. For example, the site offers several information-rich and illustrated infographics and guides about numerous helicopters, such as the Sikorsky S-92, Airbus H145, MD500, and Bell-Boeing V22 Osprey, along with several fixed-wing aircraft.

“The blog and news content are included on WinAir to attract visitors to the site who may be interested in our aviation software,” Lawn said. “This content acts as a conduit to our website and an introduction to WinAir.”

More than just an update, the new website also includes image-rich photos of WinAir itself to help potential users better understand the product. “There’s also a video of clients explaining what WinAir does for them. We’re hoping that the content will encourage potential customers to contact us so that they can learn more about the software,” said Lawn.

He added that a handful of dedicated people (including himself) designed the renewed website with input from others throughout the organization. The company has some 50 employees.

To clear up any confusion, “Av-Base Systems is the company, but we do business under WinAir, which is the product,” Lawn explained. “We’ve been in business over 30 years, and as the years progressed, everyone began to use the product name as our company name. So, we have been doing business as WinAir for a number of years,” he explained.

The company is exhibiting under the name WinAir (Booth B1926) at Heli-Expo.
Veteran operator makes the case for cockpit cameras

by Mark Huber

Cameras in the cockpit don’t just improve the safety of helicopter flight operations, they save money, and occasionally can even save a pilot’s job, according to Paul Spring, president of Phoenix Heli-Flight in Fort McMurray, Alberta, Canada. Phoenix operates a mixed fleet of Airbus light singles and twins and has had cameras in its cockpits for nearly 10 years as part of its flight data recording systems.

“The environment we work in can go from good to bad in a hurry, but when you know better, you do better,” Spring said. “Cameras should be in the cockpit of every aircraft. Cameras always seem to be a touchy subject for a lot of reasons and there are cases of crews intentionally defeating these devices. But if cameras are operated responsibly, the pilots do not need to fear these recordings. In some cases, cameras validate that crewmembers did nothing wrong during the post-incident investigation. We’ve learned a lot in my company over the last 11 years that Phoenix has been using aircraft data and cockpit video recorders, Spring said.

He dismisses pilot concerns about privacy. “Who says you have a right to a private work environment in an aircraft?” By his job and Phoenix recovered $83,000 from the company that overhauled the hook prior to the accident in an out-of-court settlement.

In yet another incident, a pilot coming off 15 days of firefighting duty spun an aircraft during an engine wash, damaging a ground power cart and breaking some of the helicopter’s windows. The video showed the pilot, who initially blamed the mishap on the helicopter, was on his phone, not wearing a helmet or flight suit, didn’t have his feet on the pedals or hands on the controls at the time of the accident. Several of these conditions were violations of the company’s operating procedures, but Phoenix Heli-Flight also used the video to revise its policies concerning fatigue.

Finally, an EC135 on a medevac mission returned shortly to dispatch when its two-pilot crew said the rotor tach failed. The video showed the rotor tach was never working, the crew breezed by the problem during the takeoff checklist and then took 20 minutes to discover the condition after departure.

Putting cameras in the cockpit and then using the lessons learned from that video also helps Spring pay what he said are some of the lowest hull insurance rates in Canada: 0.9 percent. Cameras also help him safeguard his firm’s most valuable asset—its reputation. “Reputations built over decades can be lost in seconds,” he cautioned, while pilots seem to acclimate to big brother riding along fairly rapidly. “People totally forget the cameras are there,” Spring said. “Except for the guys who decide to tamper with your data, I would terminate someone who played with our equipment.”

He said the company generally keeps this encrypted data and video for up to six months, unless for some reason it is needed longer.

Van Horn LongRanger blades receive Brazil, Canada approvals

Tempe, Arizona-based Van Horn Aviation (Booth B2012) is expanding the market for its composite 206L LongRanger main rotor blades with STC validations from Canada and Brazil. Canadian STC approval was granted on December 3 after the Brazilian ANAC greenlighted the STC on November 29. These approvals followed an FAA STC nod in August and both cover the 206L-1, -3, and -4 fleets. In addition, Transport Canada validation applies to 206Ls.

“We’ve had orders from several Canadian 206L operators since the FAA STC was announced in August,” said Van Horn Aviation president Dean Rosenlof. “We’re pleased that both Transport Canada and ANAC were able to validate the FAA STC within a few months so we could get the product to our customers in these countries.”

The blades are designed with corrosion and damage-resistant carbon fiber skin, titanium root grip plates, foam core, and electroformed nickel and stainless steel abrasion strips along the leading edge. Van Horn Aviation customers have reported speed increases of one to three knots thanks in part to the NASA-designed laminar flow airfoil that enables air to move more efficiently over the blade.

“Our 206L main rotor blades offer performance and fiscal improvements over the OEM blades, at nearly the same initial acquisition cost,” said Rosenlof. K.L.
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Health and usage monitoring systems (HUMS), which monitor critical aircraft parts and systems using on-board sensors, are typically found on large helicopters, such as those serving the oil-and-gas industry and military operations. Now, Cornwall, Vermont-based GPMS (Booth C3828) is offering Foresight MX, a just-STC’d, next-generation “prognostic health monitoring system” for the Bell 407GX and -GXP, the first such system designed for light turbine helicopters. Subsequent STC’s are planned for the 407GXI, AS350, and MD500.

Eric Bechhoefer, GPMS co-founder, CEO, and chief engineer, told AIN, “Our Foresight HUMS meets the necessary requirements for weight, cost, and simplicity for the Bell 407GX and 407GXP, making the 407 model a great first platform for the STC.” GPMS has been developing Foresight MX for more than five years. Bell, explained Jed Kalkstein, GPMS president and CFO, had been trying to get a HUMS for the 407 for many years and had an RFP in process for more than a year when GPMS visited the helicopter manufacturer. “After the folks at Bell saw Foresight, the OEM abandoned the RFP process and started over. This triggered a two-year testing and selection process for GPMS and culminated in us getting the certification last spring and signing a distribution agreement with Bell.”

Duke Energy, headquartered in Charlotte, North Carolina, selected Foresight MX, and one of its four Bell 407Gx helicopters became the platform for the STC. “Duke Energy was so happy with it,” Kalkstein said, “that they decided to outfit the rest of their fleet.” Installation of Foresight MX on the third aircraft started in mid-January.

**Flight Testing on a Bell 206B**

Before obtaining the Bell 407 STC, GPMS partnered with Eagle Aviation Academy of Midland City, Alabama, to do the initial flight-testing of Foresight MX on a Bell 206B. However, GPMS has not yet STC’d the product on the 206. “We did an FAA Form 337 installation on the 206B, which requires much of the same paperwork and engineering,” Kalkstein explained. “As soon as we have a customer who wants Foresight MX for a 206, we’ll submit the paperwork to get it certified on that platform as well.” (The FAA Form 337 is used to approve major repairs and alterations on a certified aircraft.)

Why has it taken the industry so long to come up with a good next-generation HUMS for light helicopters? “In short,” Kalkstein said, “HUMS has a bad rap. Although being a great concept, legacy HUMS are too hard to understand, too heavy, and too expensive. So, they are acceptable for large aircraft and large fleets, but not smaller aircraft and smaller fleet operators. Our system was designed around the maintainee—ease of use and actionable information. Our HUMS kit for the 407 [a Part 27 helicopter] weighs less than nine pounds.” Foresight MX for Part 29 helicopters weighs 20 pounds, while traditional HUMS weigh more than 100 pounds. “Foresight is the first real, prognostic/predictive, maintenance solution, which gives operators time to plan maintenance,” Kalstein continued. “And the automated, optimized rotor track and balance feature makes a black art more like painting by numbers.”

**Monitoring Multiple Parameters**

Unlike some basic, less capable HUMS that monitor only vibration, Foresight MX monitors vibration, rotor track and balance, flight regime recognition, flight data, and engine performance. “The diagnostic portions of [legacy] HUMS have some limitations on how they can be used,” Kalkstein said. “We’ve heard of special operations teams needing to call [the OEM] to ask if they can fly their next mission because they don’t have the kind of useful life estimates that can make these systems more valuable.”

Bechhoefer and Jack Taylor (GPMS’s other co-founder and also its senior software architect) have been developing systems for condition monitoring and prognostics for more than 15 years, including being on the team that helped develop the integrated vehicle health management (IVHM) system for Goodrich UTC. “Eric [Bechhoefer] realized there were a lot of things he would have liked to have done there,” Kalkstein said. “He and Jack went into wind turbines first, for which they designed a bussed architecture. This reduced the amount of wire and cost, in terms of the hardware components. They then demonstrated the concept on more than 100 wind turbines, which accumulated more than 18 million hours over five years.”

Eventually, the co-founders decided to go back into the helicopter HUMS market and started building what became the Foresight system. Their goal was to design the perfect HUMS solution “by putting all the complicated things that happen in the background and simplifying them in the user interface so that maintainers can easily make decisions about what they need to do.”

“We think our system brings a number of advantages that will make return-on-investment easier for all helicopter operators, but in particular making the technology available for light helicopter operators for the first time,” Kalkstein concluded. GPMS also offers Foresight FX for the oil-and-gas industry and other industrial applications: “anything that vibrates or rotates creates wear; and worn parts eventually fail,” as it says on the GPMS website.

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**Dart secures multiple approvals on H135 gear parts**

Dart Aerospace is expanding its landing gear product portfolio, securing approvals in recent months from Transport Canada, the U.S. FAA, and the European Aviation Safety Agency for its Airbus EC135 replacement crosstubes. “This achievement represents a key milestone for Dart’s landing gear portfolio. The development presented significant design, manufacturing, and certification challenges,” said David Shepherd, Dart Aerospace vice president of certification, noting the part marks Dart’s first foray into larger thin-walled aluminum tubes used on Airbus helicopter landing gear. “It definitely increases our capabilities to take on more complex landing gear program development in the future,” Shepherd added.

Shreveport, Louisiana air medical operation and completion center Metro Aviation took delivery of the initial Dart H135 crosstubes. Metro Aviation further worked with Dart during the development phase, and managing director Milton Geltz said the company is “excited to have an alternate source for these types of products.” The crosstubes are corrosion resistant, made from improved high-strength aluminum alloy, and protected by a high-performance primer and paint for offshore operations, Dart said.

Dart is offering its Standard Low size, as well as Mid-Height that is suited for helicopters requiring extra ground clearance, such as for utility operations. They are designed to be compatible with Dart’s Round-I-Beam skidtubes and OEM-related parts such as saddles, skidtubes, access steps, and ground-handling wheels. The Mid-Height model further is compatible with Dart and OEM floats, Dart said.

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**Bell’s Singapore center gets Chinese nod**

Bell’s Singapore service center has received Civil Aviation Administration of China approval for the Bell 206, 407, and 429, allowing it to conduct maintenance, repair, and overhaul work on the helicopters’ components, engines, instruments, and radios. About 150 Bell helicopters are based in China, consisting mainly of 40 Bell 206s, 78 Bell 407s, and 17 Bell 429s. That number is set to increase to around 360 with the order from Shaanxi Helicopter and Reignwood International Investment Group for 100 Bell 407GXs and 110 Bell 505 Jet Ranger Xs, respectively.

“The CAAC certification is a key milestone for Bell as we expand our service and support offering for our growing fleet in the region,” said Bell Asia general manager Chris Schaefer. “Our focus in Asia-Pacific will be working with our authorized customer service facilities and customers to ensure Bell aircraft are maintained to the highest safety standards.”

The certification is expected to give Chinese operators additional MRO options on top of local authorized agents, and engineers from Singapore will travel to China when required. Bell (Booth C407) added that the Singapore facility recently received non-restricted FAA Part 145 certification for Bell 205, 206, 212, 407, 412, 429, and 505 maintenance, repair, and overhaul work on all components, engines, accessories, instruments, and radios. C.C.
Air Methods signs with Spectro Jet-Care

by Amy Laboda

Medical transport services company Air Methods, which operates from 300 locations in the U.S., has signed a contract with Spectro Jet-Care (Booth B7817) to provide oil and engine analysis services for Air Methods’ fleet of 450 helicopters and airplanes.

Forty-year-old Spectro Jet-Care provides a range of services to clients in 140 countries, including aircraft oil, hydraulic fluid, fuel, debris, and filter analysis, as well as engine trend monitoring by gas path analysis. These tests are designed to identify operational issues at the earliest possible stage. The company has laboratories in the U.S., UK, and Switzerland and holds approvals and preferred supplier status from companies that include Safran Helicopter Engines, Pratt & Whitney Canada, Honeywell Aerospace, Leonardo Helicopters, Airbus Helicopters, and ZF Gearboxes.

“We understand the challenging environments in which the Air Methods teams work and the critical nature of the operation of their fleet,” said Alan Baker, international sales and marketing manager at Spectro Jet-Care. “Our fast sample turnaround, experienced technical teams, and 24/7 availability for AOG samples allows us to provide a first-class analysis service.”

BrightWater Aviation plans UAG acquisition

BrightWater Aviation president David Adler inked a letter of intent to acquire Stratford, Connecticut-based United Aero Group (UAG, Booth B4609), the companies announced at Heli-Expo 2019. UAG holds extensive inventories of helicopter parts for the Sikorsky S-76, UH-60, and S-70, in addition to several Bell, Leonardo, and Airbus models.

“UAG, in conjunction with Arista Aviation and our other BrightWater entities, builds upon our focus of providing unrivaled service to commercial, utility, and military operators throughout the world,” Adler said.

UAG founder, president, and general manager Jamie Gelder and Adler both have Sikorsky experience. Adler was president of Sikorsky Aerospace Services, which grew from $600 million to $2.5 billion annual revenue annually under his leadership from 2008 to 2015. Gelder served at Sikorsky Aircraft as director of after-market sales and support.

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When Kaman's optionally-piloted K-Max achieves certification in 2020, it will be one of the largest unmanned aerial vehicles in the sky.
Robinson Helicopter has had more than 21,000 pilots attend the three-and-a-half-day safety course at its California factory since the mid-1980s and thousands more at foreign-based courses sponsored by its dealers in 30 different countries to date. Robinson exports roughly 70 percent of the helicopters it builds. In any given year the factory teaches 14 to 16 courses with attendance averaging 55 to 60 for each one. Attendance for the foreign-taught courses can run from 15 to 110 students each, depending on location, with larger markets such as Australia, Brazil, and South Africa. This year 1.5 hours of dual instruction flying time Tu, owner of Civic Helicopters in Carlsbad, California, is teaching 14 to 16 courses with attendance averaging 55 to 60 for each one. At ten times the foreign-taught course Tu’s factory teaches 14 to 16 courses with attendance averaging 55 to 60 for each one. Attendance for the foreign-taught courses can run from 15 to 110 students each, depending on location, with larger markets such as Australia, Brazil, and South Africa. This year the company also held four separate safety courses in China with the assistance of Chin Tu, owner of Civic Helicopters in Carlsbad, California. Tu speaks fluent Mandarin.

Flight portions in foreign-taught courses vary based on helicopter and instructor availability. The course typically includes 1.5 hours of dual instruction flying time in Robinson R22, R44, or R66 models and extensive classroom instruction in safety, operations, and maintenance. Any licensed helicopter pilot with at least three hours in a Robinson is free to attend, although 65 percent of attendees are instructors or potential instructors. The course is an FAA-approved flight instructor refresher course (FIRC) and can be used toward CFI renewal. Fees vary from $500 for the R22 course to $1,100 for the R66; even so, the company offers the course at a loss. And that is just fine with CEO Kurt Robinson.

“We’ve had the distinction of making helicopter flying less expensive and whenever that happens it gets into more hands. You have to convince people that it has to be approached differently than driving a car on the ground,” he told AIN. Robinson is the world’s largest manufacturer of low-cost civil helicopters by volume. It has made numerous safety improvements to its helicopters, including the availability of crash-resistant fuel bladders. Also, more than half of all R66 turbine singles are ordered with auto-pilots, and the new R44 Cadet provides more safety margins, is easier to hover, and is becoming a popular IFR trainer.

Despite all this, Robinson said any helicopter’s main safety feature remains between the pilot’s ears. “People need to set limits before they fly; corporations do it with their safety management systems [SMS]. Safe flying is not just skill, it’s judgment and we spend a lot of time in the course focusing on getting people to make better decisions. I can’t be more proud of our safety course.” Kurt Robinson points out that Robinson was the first factory program to teach the Vuichard vortex ring state (aka settling with power) recovery technique back in 2011, which has now become the international standard for escaping this potentially deadly flight condition. The recovery consists of increasing the collective to climb power, keeping the nose straight with left pedal, and simultaneously applying right cyclic to a 10-20 degree bank angle. Tim Tucker has logged 10,000 hours in Robinsons and is the company’s chief instructor pilot. “Not everyone who buys a helicopter goes through the course,” he said, “but some insurance companies require it. We certainly do a lot of things to encourage buyers to take the course,” chief among them keeping the cost low.

Tucker said that crashes in Robinsons have four main causes: wire strikes and weather (29 percent each), low rotor rpm stalls (21 percent), and low G mast bumping. When Robinson started the course, the highest cause (36 percent) was low rpm rotor stall, but that has decreased significantly with the advent of the course and improvements to the helicopter, Tucker said.

All of the leading causal factors are discussed at length during the course. “The whole thing is safety. On the first day, we show some pretty vivid [crash] videos and that turns some people off,” Tucker admits. Only accidents in Robinsons are discussed. The first day of ground instruction covers topics common to all Robinson models, while the second and third days focus on the pilot’s operating handbook (POH) for the student’s specific model. There is also a more extensive discussion of model systems and maintenance on day three. The flying portion focuses on the Vuichard recovery, recovery from low rpm, advanced techniques for maneuvering in autorotations, recovery from hydraulics malfunction in applicable models, and, time allowing, anything else of student interest.

Tier 1 Engineering recently flew an electrically powered Robinson R44 a distance of 30 nm at speeds up to 80 knots and an altitude of 800 feet.

**All-electric R44 sets flight record**

Tier 1 Engineering set the Guinness World Record for the farthest distance travelled by an all-electric helicopter, flying a modified Robinson R44 a distance of 30 nm at up to 80 knots and an altitude of 800 feet on December 7. The helicopter was flown by Ric Webb of OC Helicopters under a special airworthiness certificate in the experimental category issued by FAA’s Los Angeles manufacturing inspection district office. The flight originated from the Los Alamitos Army Airfield.

Tier 1 is under contract from Lung Bio-technology PBC to produce an electrically powered, semi-autonomous rotorcraft for human organ delivery. The highly modified, all-electric R44 is powered by 1,100 pounds of Brammo lithium polymer batteries, twin electric motors, and a control system from Rinehart Motion Systems. The helicopter first flew in 2016.

Tier 1’s is not the first electric helicopter project. In 2011 France’s Solution F achieved a two-minute flight in a manned ultralight untethered electric helicopter. The flight was piloted by Pascal Christien, an aerospace engineer from the firm. In 2010, Sikorsky unveiled the FireFly project, a modified Sikorsky-Schweizer S-300C fitted with a U.S. Hybrid Technologies electric motor and two lithium-ion battery packs, capable of flying for 12 to 15 minutes.

**Leonardo investing in training and tech**

Leonardo Helicopters (B7024) managing director Gian Piero Cutillo said the beleaguered offshore energy market is improving, but not enough. “Oil and gas is getting better. It is a difficult market and I personally don’t believe it will come back to the [high] levels we have seen in the past,” he said.

Nevertheless, buoyed by 2018 deliveries that increased to 177 from 149 in 2017, Cutillo said Leonardo is spending $65 million to open a new pilot and technician training center in Philadelphia next year that will include full-flight simulators for the AW139, AW169, and AW609.

Leonardo is investigating development of an electric vertical takeoff and landing (eVTOL) aircraft, although he acknowledged that pushing an initiative forward on that front might require enlisting resources “from outside the company.” “We don’t necessarily need to be the first,” said Leonardo senior v-p of competitive analysis and strategy Roberto Garavaglia, speaking of the potential eVTOL efforts. “But I dare say that our efforts will be collaborative. I see four major issues: technology, regulation, infrastructure, and public acceptance. Is our society willing to accept a means of transportation that could potentially cause thousands of deaths per year?”

With regard to current product enhancement, the company is working on the development of active main rotor and electric tailrotor systems. The flap-based active rotor will fly soon on an AW139, while the tailrotor “remains under study,” said Gara- vaglia. The goal of the active rotor would be to reduce noise and vibration.

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