

# Heliops

DELIVERING GLOBAL COVERAGE OF THE HELICOPTER INDUSTRY

2015 | ISSUE 97



## TAKING ADVANTAGE

Understanding the success  
of Kearny's HHI Heliport

## LONG NIGHT'S WORK

THE FIRST H145s ENTER HEMS SERVICE IN FINLAND



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## 34 **A LONG NIGHT'S WORK. THE FIRST H145s ENTER HEMS SERVICE IN FINLAND**

FinnHEMS' operations in northern Finland are the first to utilize a fleet of Airbus H145s; flying in a hostile environment that adds further challenges to EMS's already demanding mission profiles.



## 60 **ON THE AIR TO SAVE LIVES**

Modena HEMS is the first Argentine company to provide an air rescue service in the city of Buenos Aires. SANTIAGO RIVAS looks at how a service came to be in a city that has never known of these helicopter operations.

## 74 **TAKING ADVANTAGE. UNDERSTANDING THE SUCCESS OF KEARNY'S HHI HELIPORT**

Identify a potentially profitable niche with a matching demand and probable high growth; then service it with a high quality and uniquely positioned product. That formula explains the success and industry prestige attained by HHI Heliport in Kearny, New Jersey.

### REGULARS

From the Editor	6
Flight Training - By Terry Palmer	30
EMS Viewpoint - By Mike Biasatti	32



## 92 **TWELVE OPERATIONAL PITFALLS FOR HELICOPTER PILOTS**

Pilots, particularly those with considerable experience, try to complete a flight as planned, please passengers, meet schedules and generally demonstrate the "right stuff." This basic drive can have an adverse effect on safety and can impose an unrealistic assessment of piloting skills under stressful situations.

# Always something to learn



he one thing about aviation is that there is always something to learn. I recently attended a briefing by an operator who was presenting on an incident where a vital component in a rotor head cracked. The presentation was informative and detailed and basically what the research showed was that the component cracked due to fatigue. There was no initiator such as corrosion pitting or damage.

Interestingly, the aircraft manufacturer had set the component life based on a set of assumptions. Following the incident, the assumptions were revisited and it was realized that the stresses involved in Ground-Air-Ground and Centrifugal (starting and stopping of the rotor) load cycles were not reflected in the design flight profile. When these stresses were factored in, the result was an almost halving of the component life. It had taken about 1500 to 2000 flight hours for the particular crack to propagate to the point of material failure. The crack would have been visible several hundred hours before so why wasn't it seen in maintenance? A tape had been placed over the area in question to stop abrasion from a wire that rubbed on the metal when the rotor was turning. The wire had since been modified to stop the problem but the tape had remained and in doing so, had hidden the crack.

I guess there are a few lessons from such an event in which, by the way, the aircraft was neither damaged or anyone injured. First, the pilots made a great decision. The helicopter developed a sudden but subtle lateral vibration so the pilots landed the aircraft almost straight away. That is a great lesson for young pilots – learn to 'feel' and 'hear' your aircraft because the instruments don't always tell you that something is wrong. I must admit that is one reason I never wore noise-cancelling headsets in helicopters because sometimes that subtle tone change can be the first indication that something is wrong. Just a personal choice.

Second, one needs to be aware of unintended consequences. In this case, the fitment of a tape to address one issue actually masked the development of another. Third, the OEMs are not always right – humans

are involved and error or oversight is part of being human. Should something happen, sometimes the very basis of the design needs to be addressed or at least questioned. Issues can lie dormant for a long time and only raise their heads when the right combination of circumstances happens.

This was one of those occurrences where no one was doing the wrong thing. The OEM was not aware of the dormant problem. The Operator was operating and maintaining the aircraft to the highest standards. The pilots were operating the aircraft well within limits and conservatively. The event and subsequent actions of the pilots, operator and OEM made sure that no one was hurt, the problem was properly understood and the solution developed.

*Mark Ogden*



# Heliops

DELIVERING GLOBAL COVERAGE OF THE HELICOPTER INDUSTRY

The **HeliOps 2015 Global HEMS** poster is a **“Must Have”** for everyone involved in or who has an interest in the worldwide Helicopter EMS industry. Looks great on your office, the ops room, at home or as a gift for a friend.



Measuring 96.5cm wide by 70cm deep the poster is printed on 200 gsm satin stock and features 92 immaculate illustrations showcasing HEMS programs around the world by master illustrator Ugo Crisponi.

This is a limited edition print run so order yours today, and order some for your friends and colleagues – the perfect gift.



**FIRST RUSSIAN AW139 FIRST FLIGHT**

A crew from Russian Helicopter Systems has completed the first civilian flight inside of Moscow of an AW139, assembled at the joint Russian-Italian enterprise HeliVert in Tomilino, near Moscow.

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**UTAIR SIGNS DEAL WITH ROSNEFT**

UTair has won a one year tender for helicopter operations issued by Rosneft to perform employee and cargo transport with Mi8-T, Mi-26T, H125 and AS355 aircraft in the Komi region and Siberia.



**MED-TRANS BEGINS IN MCALESTER**

Med-Trans Corp. has launched McAlester Regional Air Care flight program operating a Bell 407GX to serve McAlester Regional Health Center.



### ASTAR FOR LEE COUNTY SHERIFF

Lee County Sheriff's Office, in Fort Myers, Fla. has taken delivery of its AS350 BA AStar helicopter following completion of the aircraft's second 12-year inspection.



### MD500ER FOR BUSHVELD GAME CAPTURE

MD Helicopters have delivered a new MD 500ER to Bushveld Game Capture, Vryburg, South Africa. This right-hand command MD 500ER is the second purchased by the company and features air conditioning and the Garmin 500H EFIS all glass avionics flight display.



### AW609 TILTROTOR SETS SPEED RECORD

An AgustaWestland AW609 TiltRotor has set a speed record on a 1000 km 'point-to-point' journey from its Yeovil facility in southwest England to its Cascina Costa facility near Milan, Italy, covering a distance of 1161 km (721 miles / 627 nm), in just 2 hours 18 minutes.



**AERIAL  
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## **Aerial Production Rentals introduces The New GSS C520 Camera System**

### **APR is ready to offer clients the Gyro-Stabilized Systems' C520:**

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- Payload options include: Sony F55 camera, Red Epic-X or Red Epic Dragon.
- Custom Configurations for the Canon 30-300, Fujinon Premier optimo 18-200 or Angenieux Optimo 24-290/28-340.
- The GSS C520 is a high performance-high demand platform.
- A hybrid open-platform system that is light and compact, has increased performance and functionality over traditional open-platform systems.
- The GSS 520 is not ITAR controlled and can be shipped as excess baggage nationally or around the world.

### **Aerial Production Rentals owns multiple late model systems (Sony/Fujinon) which serve both aerial and ground based clients.**

### **Helicopter Mount Options for the Cineflex V14, Elite or the new GSS 520 include:**

- Airfilm AFSP-1 for AS-350 / 355 series helicopters
- Airfilm G-1 for Bell 206 & 407 series helicopters
- Airfilm AF200 for AS-350 series helicopters

GSS 520 Demo reel available at  
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The entire system and mount generally occupies only 5 cases, all of which meet most airlines baggage requirements.





### R44 & R66 AUTOPILOT AND ASPEN PACKAGE

Genesys Aerosystems HeliSAS and autopilot have been approved by the FAA on the R44 the price for an autopilot installation with Aspen PFD is \$60,200. The autopilot option has all of the same modes and functionality as previously approved for the R66.



### BELL ASSEMBLY CENTER FOR 505

Milestone moves the company one step closer to production and delivery the 505 Jet Ranger X with the official opening of the Lafayette Assembly Center, a new 82,300-square-foot, \$26.3 million hangar facility is built on a 14.5-acre site.



### EIGHTH SAR S-76D FOR CHINA

The China Ministry of Transport has taken delivery of its final two S-76Ds for China's airborne SAR maritime operations; the fleet now totals 16 S-76, eight of which are S-76D models.



## AW139 FOR YUNNAN POLICE

China's Yunnan Provincial Police Department has placed an order for one AW139 for law enforcement and border patrol and it is expected to enter service in 2016; Yunnan Province is the most southwestern province in China, bordering Vietnam, Laos and Burma.



## NEW REACH BASE IN COLORADO

REACH Air Medical Services has opened its new air ambulance base in La Junta, Colorado, operating under the name Southern Colorado CareConnect with an AW119.

## US\$115 MILLION ELBIT CONTRACT

Elbit Systems Ltd. has been awarded a twenty-year Israeli Police contract, valued at \$115 million, to supply leasing and maintenance services for the Israeli Police Force's aircraft. The contract includes acquiring six new helicopters, adapting them to meet the Police requirements and maintenance.

## LINCS NOTTS AA TO REPLACE MD902

UK Lincs & Notts Air Ambulance will replace their MD902 with an AW169 and the larger cabin will give medics improved 360 degree access to patients.



### OCEANIA AVIATION STC FOR B0105 RESCUE HOIST

Oceania Aviation is awaiting final NZCAA STC for their Bo105 Rescue Hoist Conversion and Mount which will replace the original OEM Hoist Motor now out of production. The conversion consists of a modification to the OEM hoist arm and can also be easily adapted to the BK117 winch arms through STC.

### 20 H135s FOR WAYPOINT

Waypoint Leasing has agreed to acquire up to 20 Airbus H135 aircraft over the next three years and is the first lessor to acquire and lease the type for EMS.

### ADAC CHOOSES HELIATICA FOR BUSINESS IN RUSSIA

ADAC HEMS Academy has partnered with HELIATICA, a private Moscow-based Russian company, to offer pilot training on its EC135 and EC145 full-flight simulators and training for doctors and rescue paramedics on their unique medical simulator, Christoph Sim.



### LAST B0105 AIR AMBULANCE TO RETIRE

Scotland's Charity Air Ambulance who operates the last Bo105 in HEMS service is replacing the Perth-based aircraft with an H135 operated by Bond. The Scottish Ambulance Service introduced the Bo105 in 1989.

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## Custom Completions



## Our Recent Successes



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### 18 AW FAMILY TO WAYPOINT LEASING

Waypoint Leasing has placed an order for a mix of AW169, AW139 and AW189 types with deliveries from 2016 through 2019 to operate across a range of missions, including EMS, search and rescue, and oil and gas. Waypoint currently owns 31 AW Family aircraft in its global fleet.

  
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**STATOIL EXTENDS CHC CONTRACT**

Statoil has exercised options to extend its contract with CHC, securing helicopter SAR services to its Tampen and Oseberg fields until 2019 in a deal worth over \$90 million. CHC will continue to provide offshore SAR to the fields using three H225s.

*Tel-Tail Floodlights*

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**Tail Floodlight / FFRL / Main Rotor Floodlights**

**AW-139**



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### H135s FOR NORWAY

The Norwegian Air Ambulance will be the first operator to purchase the improved H135 having ordered three aircraft with the option for further helicopters in the future, the first delivery is planned for 2017.



### H145 TO SUFFOLK COUNTY POLICE DEPARTMENT

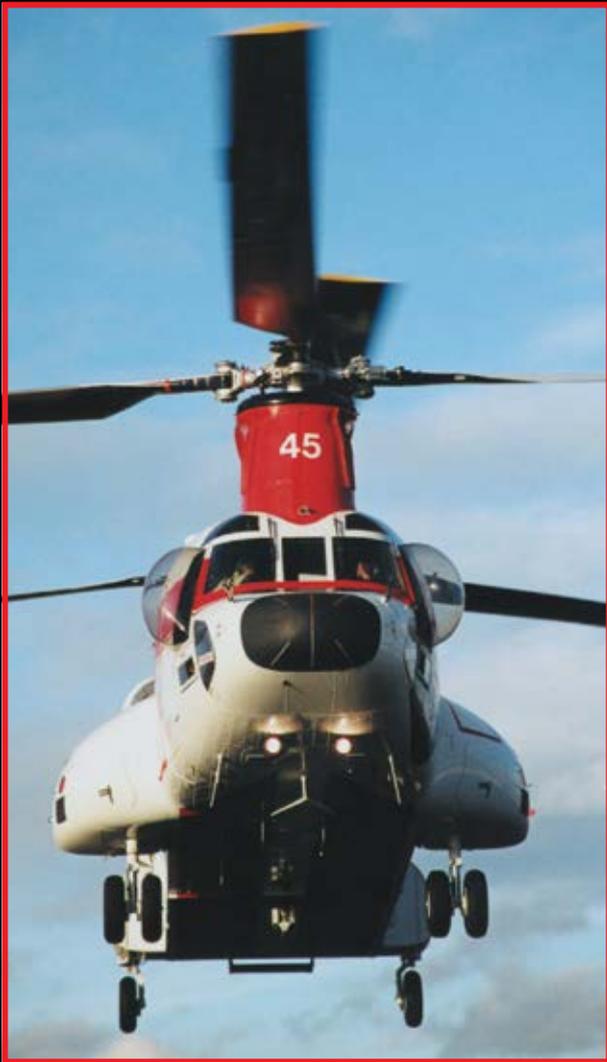
The Suffolk County Police Department has added a new H145 to its fleet, replacing an older AS350B2. Metro Aviation completed the twin-engine aircraft at its completion center in Shreveport, Louisiana.

### BELL 429 TO MEXICAN OPERATOR

Servicios Aereos Across, an aircraft charter service based in Toluca, Mexico, has taken delivery of a Bell 429 adding to a Bell 407GX currently operated by the company.



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# We Maintain



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Columbia Helicopters is the only commercial operator of the Model 234 Chinook and Vertol 107-II, the civilian models of the CH-47 Chinook and H-46 Sea Knight. The company's aircraft operate globally in extreme weather conditions, and are supported by one of the most exceptional maintenance facilities anywhere in the industry.

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### MEMORIAL HERMANN LIFEFLIGHT FOUNDER DIES

Dr. James "Red" Duke Jr., Houston's iconic, cowboy-style doctor who founded the Life Flight helicopter ambulance system, has passed away aged 86. Memorial Hermann Life Flight was the first air ambulance program to operate in Texas and started 1976 with a single SA 319B Alouette III but now has five bases operating EC135s.



### FIRST UK H135 OPERATIONAL

Bond Air Services has started to operate the first H135 in the UK on behalf of Thames Valley Air Ambulance; this will replace the current EC135T2.



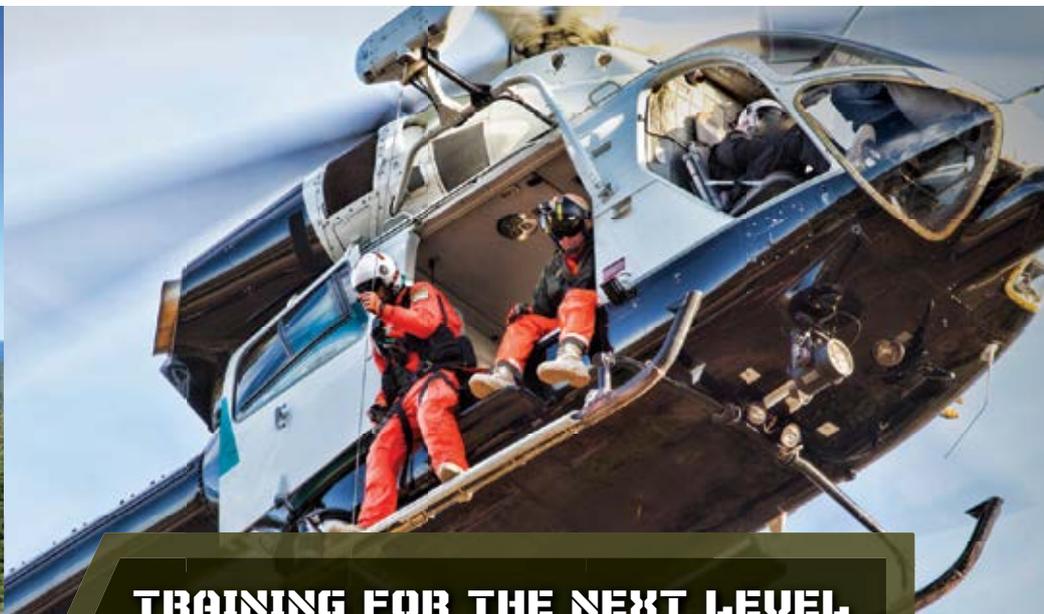
### HELI-ONE TO OVERHAUL H225

Heli-One has been chosen as Bond service partner for an H225 9,000 hour G check, the contract, to be carried out at Heli-One's Stavanger facility in Norway, is the first major H225 inspection in Bond's fleet.



### 429 DELIVERED TO SLOVAKIAN POLICE

The Slovakian Police have received the first of two Bell 429s to be primarily used for border protection, SAR and road traffic law enforcement.



### TRAINING FOR THE NEXT LEVEL

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- Total Team Concept
- CFR 14 FAA 141 Training School
- In-house Aviation Assets
- Custom Designed Mission Equipment & Solutions





### FRASCA BELL 407GX SIMULATOR DELIVERED

Frasca International Inc, Urbana, IL has delivered a Full Flight Simulator based on the Bell 407GX to the Bell Training Academy, Fort Worth Texas. This is the first FFS built for the Bell 407GX and is convertible between the legacy configuration and the latest GX Garmin G1000 configuration.



### MAGNIFICENT RECEIVES CANADIAN STC

Mecaer Aviation Group has validated their luxury interior for the Bell 429 with Transport Canada Civil Aviation. Developed and branded for the Bell 429 under an EASA STC in May of 2015 the interior is now validated around the globe.



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**FIRST H145 TO CHINA**

The China's Guangzhou Police Department has ordered a single H145 for law enforcement duties, to be delivered at the end of 2016 and is their first helicopter and the first of this type to enter the Chinese market.



**MI-26T GAZPROM CONTRACT COMPLETED**

UTair has completed a contract to deliver diesel fuel to the Severo-Tambeiskoye deposit near the remote village of Sabetta for Gazprom Burenie using Mi-26T helicopters.

**FIRST BELL 407GXP IN BRAZIL**

Bell has delivered the first Bell 407GXP to Brazil, outfitted for corporate transport and operated by Medalhao Persa based in Curitiba, Parana, Brazil.



**UK POLICE EC135 T2+ DELIVERED**

The UK National Police Air Service has formally received the first of seven redesigned and upgraded EC135 T2+. The upgrade will extend the life of the NPAS fleet and introduce next generation mission systems capabilities to UK policing.

# PROFESSIONAL PILOT DEVELOPMENT

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- ▶ INSTRUMENT
- ▶ TYPE RATING INSTRUCTOR
- ▶ INSTRUMENT RATING INSTRUCTOR



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looking for pilot training”*



### AW189 EXCEEDS 2000 FLIGHT HOURS

Two AW189s operated by Bel Air of Denmark have exceeded 2000 flight hours setting a new milestone for the type.



### AW169 GOING OFFSHORE

HeliService international GmbH has ordered an AW169 for delivery in 2016 marking the entry of the type into the North Sea offshore market and the first AW169 customer for offshore operations in Europe.



### MERCEDES-BENZ STYLING FOR H145

Airbus Helicopters is now offering exclusive redesigned cabin interior to Mercedes-Benz Styling for its VIP version on the H145 and has received four orders with deliveries to start before the end of 2015.



### CAE LAUNCHES H225 TRAINING

The CAE H225 full-flight simulator located in its Oslo training center has now been qualified to Level D by the European Aviation Safety Agency and is now ready for training.



### MD902 FOR LONDON HEMS

London's Air Ambulance charity has raised £4 million to acquire a second MD902 Explorer with operations starting in early 2016 enabling extended daylight flying hours in the summer months.



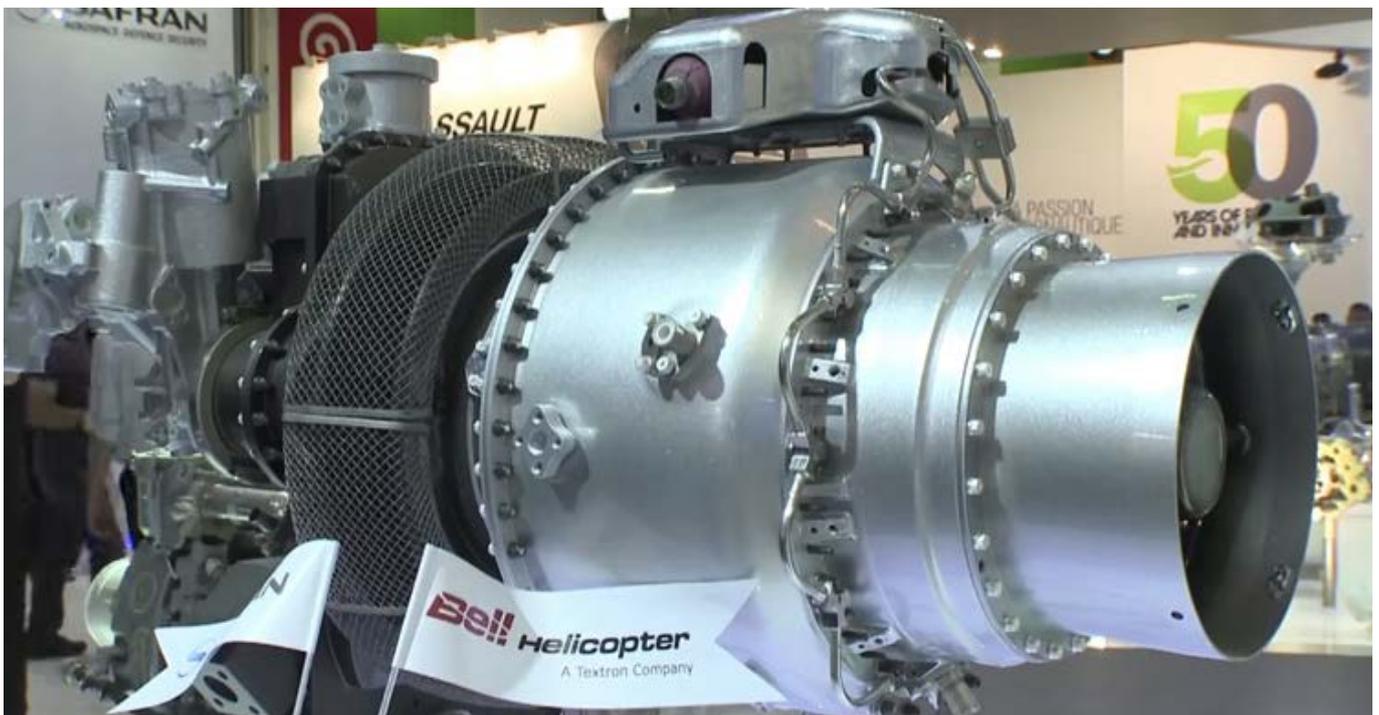
### EASA CERTIFIES AW189 ICE SYSTEM

The AW189 is the first helicopter in its weight category to receive EASA ice protection system certification. The Limited Ice Protection System permits flight within a known and defined envelope of icing conditions typical, for example, of the North Sea.



## ERICKSON TURKISH FIREFIGHTING CONTRACT

Erickson has been selected by Pan Aviation to provide emergency fire suppression support for the Municipality of Istanbul and the surrounding areas of Turkey using of one specialized S-64E Aircrane to assist with regional fire suppression and emergency response operations 365 days a year for two years.



## FIRST ARRIUS 2R FOR BELL 505

Turbomeca expects EASA engine certification by the end of 2015 on the Arrius 2R engine and has delivered the first production to Bell as scheduled, the turbine is the only 500 shp engine to feature a dual-channel FADEC.



## H145 TO OPERATE IN PAPUA NEW GUINEA

Waypoint Leasing has placed the first of its Airbus H145 orders on lease with Pacific Helicopters Ltd for operations in Papua New Guinea and throughout the Asia-Pacific region.



## SIX H130s TO MONACAIR

Monacair are to receive six H130s to set up a scheduled service linking Monaco Heliport to Nice International Airport, the first commercial flight is planned for January 2016 with a flight every 15 minutes.



### ARGENTINE COAST GUARD RECEIVES H225

The Argentine Coast Guard has taken delivery of its first H225 to be based in the city of Mar del Plata and used for SAR missions in the Argentinian sea; this marks the start of the renewal process for the Coast Guard's fleet of SA330 Puma helicopters.



### HONG KONG FLYING SERVICES ACQUIRES SEVEN H175s

The Hong Kong-based Government Flying Services has ordered seven H175s, becoming the world's launch customer for this model in the public services configuration.



### KA-32A11BC HELICOPTERS TO CHINA

Russian Helicopters has delivered nine Ka-32A11BC helicopters to China, where they will be operated by the city of Ordos' Main Directorate of Public Security, Shanghai Public Security Directorate, and a number of commercial companies.



**SEVEN H130s FOR CHINA'S HEMS**

HEMS999, an air ambulance operator under the MIT Group, has signed an order of seven H130s to provide first highway accident HEMS across the eastern province of Shandong.

**KING OF JORDAN FUNDS TWO HELICOPTERS**

His Majesty King Abdullah II has launched the Air Ambulance Centre, which is the first center of its kind in the region, and has donated two helicopters and will cover expenses of their maintenance for two years.



**AW119KX FOR SINO-US**

Sino-US Intercontinental is adding a further three AW119Kx's to its fleet of thirty helicopters it has been operating since late 2013 with delivery by the end of 2015. Sino-US Intercontinental is part of Shanghai Zenisun Investment Group.



**MD520N FOR MOSQUITO CONTROL**

Volusia County Mosquito Control, Volusia County, Florida has taken delivery of a new MD 520N, the unit also operates two MD500E models to inspect and treat the region's wetlands not easily serviceable by trucks.



**AW189  
RUSSIAN CIVIL  
CERTIFICATION**

AgustaWestland has obtained Russian Civil Certification for the AW189 and follows a recent order for ten aircraft made by RN-Aircraft, a subsidiary of the oil company Rosneft with deliveries to start at the end of 2015 and continue through 2017.



BY  
TERRY  
PALMER

# Avoiding Get Home-itis



Most pilots are faced with a pressure to get home known as “Get Home-itis”. It is a condition that includes a self induced pressure to complete a flight no matter what the obstacles might be. There are many stories that can be told about this potentially deadly disease. Many times, if there is a story to tell then the results of the flight were not good. Let’s look at an example from the mind of the pilot.

It was a beautiful VFR day; a great day for an air show. What can be more fun than flying an aircraft to an airshow for a weekend and spending time with other individuals that share your passion? The day’s events were spectacular and led to lengthy conversations with other pilots. As the day came to a close, the decision to start the journey home was made. Still on an emotional high from the exciting events, it was easy to make the decision to start home without a thought of fatigue. A quick pre-flight and a cursory look at the weather and off he went. “Got to get home and go to work the next day”, a pilot for fun, a mechanic for a paycheck. The long way back required two fuel stops; at least it took two stops going up to the show. On the way back, the weather stayed good but fatigue started to set in. Then the thoughts of all the work that had to get done the next day started to surface. All the deadlines that had to be met began to weigh on his mind. At the first fuel stop, he realized the tailwind was favorable. As he continued on to his second fuel stop, he concluded that he could probably make it home without another stop, saving at least 30 minutes. Forty miles from home clouds started moving in and the wind picked up. Twenty miles from home the low fuel light illuminated. Quick calculations complicated by fatigue and the pressure to get to work in the morning helped him come to the conclusion that he could make it without a stop. Three miles from home, the fuel was exhausted and fatigue was now mixed with panic. The area was thick with trees. It was dark and windy. There is not a good ending to this story.

There are many stories; we all have them, where we say we were lucky to get home. The ones where we know we made a bad decision or two but luck came through for us. Get Home-itis is not always fatal. However, if we don’t learn from the experience, it could be fatal the next time.

So how do we teach students to avoid the Get Home-itis. How do we vaccinate ourselves for this disease?

This first step is to teach (and remember) to employ professional discipline. This means not taking short cuts or allowing schedule pressures to influence

safety decisions. During training provide a scenario that includes outside pressures using schedule, weather or airspace limitations. Then add an abnormal or emergency situation. This helps build awareness in the student as well as the instructor. The instructor can test a skill set under pressure. The students can recognize their personal limitations under pressure.

After building the awareness through demonstrated scenarios, the human factor training can be introduced. The human factor portion can show examples of accidents that happened as a result of poor decisions under pressure. NASA AMES completed a study in 2004 that analyzed 9 airline accidents that were attributed to crew error from what they called “Plan Continuation Bias”. The study showed that the closer a pilot is to completion of the flight, the harder it is to recognize the need to change course or make another decision. Pilots can subconsciously block cues that the conditions have changed. Situational awareness becomes compromised. The NASA study highlighted critical decision-making breakdowns, like the resistance to divert to an alternate airport or the refusal to go-around. Remember, plan continuation bias gets stronger the closer you are to home.

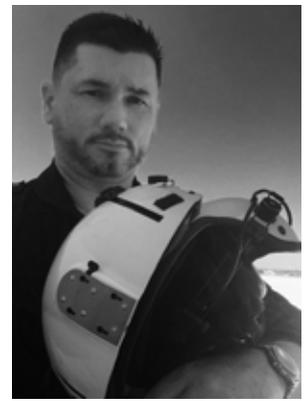
If you couple the inability to recognize conditional cues with the idea that it is easier to continue than make another decision, then you may have a situation where you can talk yourself into believing that everything is OK and further disregard dangerous indicators. The closer you get to the end of the flight, the stronger the desire to finish and the more likely you are to ignore the warning signs.

Learning these concepts early in flight training provide a foundation that will help throughout a pilots career. Each segment of helicopter operations has its own schedule pressures. Air medical pilots have fallen victim to the pressure to get a patient to a medical facility. Law Enforcement pilots have felt the pressure of the mission to catch the “bad guy”. All operations have the added pressure of unpredictable weather or unfamiliar obstacles and terrain.

Training to avoid Get Home-itis is like training for instrument flight. Trust what you see and not what you feel. Have confidence in procedures and professional discipline and be willing to take a break and rest, wait out the weather, or get fuel. There is nothing more important than getting home even if it is later than expected. **HO**

# I was watching the news today

BY  
MIKE  
BIASATTI



I remember the day clearly, it was 1989 and I was in the midst of completing my Private Pilots Rotorcraft Helicopter training in the R22 HP. I looked across the ramp at Oakland International Airport and saw a Bell 206, this particular aircraft was used for the local News Station and was equipped with a LORAN, a very big deal back in the day. As I approached the aircraft and marveled at it in all its turbine powered glory I thought to myself that one day I would be flying this machine and I would have arrived, in a 'reached my career goal' manner of speaking. At that point and time, having come 100% from a civilian background this aircraft and the people who were lucky enough to get paid to fly it represented the pinnacle of helicopter employment. I knew little if anything about Helicopters with 2 engines, or IFR (Instrument Flight Rules) as it related to helicopters; no the end all be all of my path was a CFI (Certificated Flight Instructor) in helicopters to build experience and flight time and to then get a commercial job flying a fancy machine just like this one.

I slowly became aware as I progressed through commercial training, CFI school and an Instrument Certificate in helicopters that there was an entire world of helicopters that I'd only seen of in posters and magazines that offered so much more than just flying over freeways and reporting on accidents. Fast forward 20 plus years, the last 15 of which I have enjoyed flying twin engine helicopters in a SPIFR (Single Pilot Instrument Flight Rules) environment in HEMS (Helicopter Emergency Medical Service) and it seems like a lifetime ago that I was enamored with that shiny Bell 206.

The vast majority of HEMS in the U.S. (HEMS recently re-branded HAA (Helicopter Air Ambulance) by the FAA) are operated by VFR (Visual Flight Rules) aircraft in VFR and MVFR (Marginal Visual Flight Rules) weather and while many areas of the country would not benefit from having an IFR equipped helicopter servicing their area, there are many locations where seasonal weather and local conditions ground the VFR fleet and an IFR helicopter offers much needed services in a safe and efficient manner.

Personally I really enjoy flying the helicopter in IMC (instrument meteorological conditions) under radar coverage not ever having to worry about the changing weather patterns (no temptations to scud run to get back to base). Of course some weather grounds even the best equipped civilian IFR helicopter with the most experienced crews. Thunderstorms, icing to name a few more obvious ones and of course sometimes the ceiling and visibility are so reduced that flight isn't possible, but for those countless nights in numerous areas where ceiling

are lower, visibility is reduced or the forecast calls for the latter and the prudent VFR crew makes the wise decision not to fly, the IFR operator has many additional tools available to safely perform the operation.

There is much due diligence required, just like with any operation, but an added dose when undertaking an IFR flight, one of the biggest is fuel. Most twin engine helicopters at their best can carry 2 hours and 20 minutes of fuel. In some parts of the country where flights are short and the availability of alternate airports (in the event of a missed approach at the planned destination) are plentiful this may not present much of an issue. Where I fly many of our legs are an hour flying time with not a lot of airports authorized to be used as alternates for one reason or another and this then requires an intermediate stop for fuel, so two IFR legs versus 1 in order to ensure that should the forecast be wrong you've left yourself with options.

All Air Ambulance operators in the U.S. typically require an instrument rating for employment of their pilots and now the FAA has chimed in with their recent addition to Part 135 (135.603 specifically) and made an instrument rating a requirement for helicopter pilots in the Air Ambulance field, but have given the industry until April 24, 2017 to comply. Where they fell short in my opinion is in mandating training frequency and currency. Flying single pilot IFR in IMC (Instrument Meteorological Conditions) in a helicopter in my opinion is a very perishable skill set. In our local area there are times of the year where you may go a month or two with weather conditions that offer IMC and when those conditions return there is a slight re-learning curve, but the added safety offered to the crews and the patients on board during an IFR flight with a current and qualified pilot comes with many benefits. Regulations allow for Single Pilot IFR Flight using a Flight Director instead of a required co-pilot and having worked under this type of operation for the last 13 years I can attest to the safety of the program.

Many locations, ours included have Terminal Instrument Approach Procedures that take the aircraft off of the enroute structure and via very precise RNAV/GPS (Area Navigation/Global Positioning System)SIAP (standard instrument approach procedures) fly the aircraft to within about 1/2 mile of the destination hospital, down to 400'AGL and allow for continuation with as little as 3/4 SM Visibility. In instances where those approaches do not exist the helicopter can shoot the approach at a nearby airport, in many cases reduce the required visibility on the approach by 1/2 and then either complete the approach and meet a waiting ground ambulance or in some cases with allowed reduced weather minimums and agreement of all crew on board continue visually to the destination hospital.

For programs with a helicopter based at an airport often Instrument Departures can be performed with as little as 1/2 SM upon filing and receiving their clearance. There are many ways to safely utilize the IFR System to the advantage of accepting flights, that for programs that have made the decision to include an IFR Platform Helicopter in their fleet and keep their crews proficient it serves as a great additional resource to the communities they serve.

There are many added costs associated with equipping a helicopter with the instrumentation (most IFR platforms are utilized on twin engine helicopters because of the required redundancy of many systems, but there are a few single engine helicopters approved for IFR Flight, where the required systems have the added back ups), added inspections, additional training costs, currency requirements, additional publications etc so it is not necessarily a fit for all operators and as I said before there are many areas where it wouldn't justify those costs, but in the areas of the country that have the weather patterns that keep our VFR brothers and sisters ground, it is a fantastic, safe tool in the growing Helicopter Air Medical Community. HO





# LONG NIGHT'S WORK

THE FIRST H145s ENTER HEMS SERVICE IN FINLAND

FinnHEMS' operations in northern Finland are the first to utilize a fleet of Airbus H145s; flying in a hostile environment that adds further challenges to EMS's already demanding mission profiles.

STORY BY **LEIGH NEIL** / PHOTOS BY **NED DAWSON**

## EARLY DAYS

---

The first Finnish HEMS operations commenced in the south of the Finland in about 1993 and within 5 years there were six HEMS bases providing coverage for a large proportion of the country. There are now six regional bases, each affiliated with a local university hospital district and all run by the FinnHEMS organization.

Jyri Orri, FinnHEMS Managing Director, explained how the early structure of the Finnish HEMS services created substantial local involvement in the operations, as the local hospital district had responsibility for providing the medical service and staff, while locally based non-profit organizations (NPOs) provided and ran the aviation assets and flight-crews. Fundraising from local citizenry was carried out by both of these organizational arms and additional annual funding was provided from state-controlled lottery and gaming earnings. Finnish law precludes this annual lotteries funding being given to profit-making bodies such as limited liability companies, hence the need for the non-

profit organizations. On the negative side, according to Mr. Orri, that structure was subject only to the minimum requirements of the relevant Finnish and international civil aviation legislation and therefore did not offer the higher levels of safety and security demanded of a commercial operation. Overlaps in coverage areas also meant that there was a degree of competition for funding between the different NPOs.

## FINNHEMS

---

New legislation paved the way for the creation of FinnHEMS, heralding the rationalization of the hitherto fragmented, inefficient structure and instituting a single company to supply HEMS services throughout Finland. The creation of the company was a massive undertaking for a small team of only four or five people. They drew heavily on their backgrounds in airline and governmental civil aviation service to meet the highest levels of safety, reliability and accountability. While technically a private company, FinnHEMS is a NPO owned by a consortium of all five university hospital districts and receiving funding directly from the governmental budget.

NEW LEGISLATION PAVED THE WAY FOR THE CREATION OF FINNHEMS, HERALDING THE RATIONALIZATION OF THE HITHERTO FRAGMENTED, INEFFICIENT STRUCTURE AND INSTITUTING A SINGLE COMPANY TO SUPPLY HEMS SERVICES THROUGHOUT FINLAND.



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Support services for the national EMS, helicopter operations, bases and FinnHEMS' own administration requirements are all supplied by the company, while the hospital districts still provide the medical services, equipment and personnel. As a single provider, FinnHEMS does not differentiate between hospital districts and supplies services as required throughout the coverage areas, thereby eliminating competition and increasing efficacy and efficiency. The FinnHEMS fleet operates from three bases in the northern part of Finland, located at Rovaniemi, Oulu & Kuopio, and three bases in the southern part of Finland, at Tampere, Turku & Vantaa. Those six bases provide HEMS assistance to 70% of the country within 30 minutes of dispatch.









Heliops





Excluding flight-crew, a mere seventeen people (less than 12 person work years) are employed by FinnHEMS, covering management, administration, operations and telecoms/IT; an indicator of just how efficiently the organization has been put together. FinnHEMS has ten-year contracts with two helicopter companies to provide the aviation asset services, with the three northern bases serviced by the Airbus H145s

(formerly the Eurocopter EC145-T2) of Scandinavian MediCopter (SMC) Ab. The northern bases cover much larger areas than those in the south, necessitating the use of the H145 for its increased range capability compared to the H135s operated in the southern areas by Skärgårdshavets Helikoptertjänst (SHT) Ab. The two-company model serves FinnHEMS well, giving a degree of risk-management security,





Heliops





comparative performance monitoring and a competitive factor that prevents monopolistic cost over-runs.

Dispatch decisions are made by what Orri refers to as a 'Emergency Response Center'; effectively a single emergency services call-center that processes calls for Police and Rescue services, as well as medical response. After carrying out a risk assessment, the call-center supervisor determines what response and assets are required for any given

emergency so the FinnHEMS machines are treated like any other ambulance or medical asset that are utilized when necessitated by the nature and location of a particular incident. Because the bases are not just helicopter facilities but also according to Finnish law EMS on-call 24/7 centers for the medical staff, the onsite doctors will regularly receive telephone calls from road ambulance personnel seeking expertise and assistance. In those cases the ambulance crew may ask for a helicopter to attend, or the doctor might make the decision to attend with the helicopter

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based on what they learn from the ambulance crew at the scene.

J.P. Matilla is Deputy Flight Operations Manager for SMC in Finland. He oversees operations of a fleet of four H145s at the three northern bases, with one machine stationed at each base and remaining helicopter as a backup. The company has no simulator yet so, according to Matilla, the backup is being used extensively for training. Coming to the 145 after flying 135s, Matilla was the first pilot rated on the type and has formed a very positive opinion of the machine and its capabilities after only two months in service. "It's an amazing aircraft and I think it's almost perfect in the HEMS role," he opined. "The only thing lacking to make it perfect in my view is an anti-icing system." The ease of the type's introduction to service has also impressed Matilla. "When we first got the new helicopter I expected that we would be experiencing a lot of serious problems, with it being a brand new type. However, we have only had a few very small, minor issues," he

reported. FinnHEMS is the first operator in the world to put the H145 into HEMS service and Matilla is complimentary of the support provided by Airbus Helicopters during the transition.

In Matilla's opinion as a pilot, the H145's increased power is its greatest advantage over the smaller 135, with the Finnish weather varying from viciously harsh winter conditions to blazing hot summers. Temperatures in winter can plummet to  $-40^{\circ}\text{C}$  so there are occasions when the H145's minimum operating temperature of  $-45^{\circ}\text{C}$  allows it to operate when the 135s cannot, due to their limit of  $-35^{\circ}\text{C}$ . SMC only commenced H145 operations in February 2015 so have only endured one month at the tail end of winter; next year will provide a better test of the type's performance in the Finnish weather extremes. Operationally speaking, he reports the greatest improvement offered by the H145 to be the larger space available in the rear. Not only does this give more room for both personnel and equipment, it also makes loading





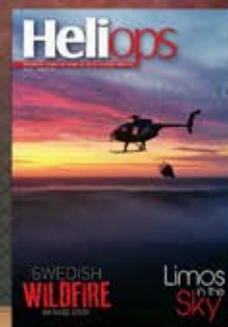
and unloading patients much easier. He likes the cockpit layout, describing it as very pilot-friendly. “When you first sit in the cockpit you are overloaded with all the information from the three screen-displays but once you become familiar with it, it is really easy and very informative.”

## NORTHERN BASES

In most operations from the northern bases, flights are up to 150-200km radius but can be 300km each way when operating towards the eastern border with Russia. Matilla stated that he has calculated the H145 can reach any location within Finland from the base at Oulu without re-fueling, although the longer flights would require re-fueling to return. There are few terrain hazards in Finland as most of the country is rather flat and the highest point is only around 4,500ft, so normal operational altitudes are low-level at around 1,000ft agl, although this will vary if strong winds make that level unwise or a higher level more advantageous. “The weather can be rapidly changeable, however, particularly in Lapland where it can go from CAVOK to freezing in drizzle within five minutes,” Matilla commented. “And it is very dark, again more so in Lapland. Even though we fly with NVGs, it is so dark in the rural areas that even the goggles are not so effective. Autumn is the worst, when there is no snow.” Of course, at the latitudes concerned there are months at a time when it is dark for 24hrs a day; at the most northern base of Rovaniemi for instance, there

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are only three hours a day when there is the slightest lightening of the sky. Operations are still conducted VFR, albeit VFR-Night with night-vision goggles! On the other side of the coin, summer time means months at a time of 24hr daylight, making it difficult for

some people to sleep and stay rested. Pilots are IFR-rated, IFR training is carried out and the machines are IFR equipped but the IFR capability is retained merely as a safety backup at this stage.

Comparing the H145 (EC145T2) to the previous EC145, Matilla lists the range, space and power as areas of improvement that are notable. "When I consider the T2, it's like all the compromises of the earlier machine have been resolved," he said. "Now we can easily carry out operations at maximum weight - with full equipment and personnel, plus full fuel." Timo Honkavaara, senior aviation specialist with FinnHEMS, concurred with Matilla, commenting that the doctors in particular appreciated the greatly increased space in the cabin. He estimates that each base accrues about 450-500 flight hours annually on its machine and commented that, as SMC was a launch customer for the H145, there is a good deal of international interest in how the new type was performing in FinnHEMS service.

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Each aircraft operates with two flight-crew; the pilot in command and a HEMS crewmember or two pilots (Rovaniemi). Because operations are conducted at night, the HEMS crewmember is trained to approximately the PPL(H) level and must also hold a Class 2 medical certificate under EASA regulations. They fly front-seat, next to the pilot while the medical staff members ride in the rear medical compartment, which contains an extensive Aerolite HEMS fit-out, customized to FinnHEMS demanding specifications and design. This even includes a dedicated moving-map display for the medical personnel, showing the location of all medical assets in the area.

HeliOps interviewed one of the doctors working from the Oulu base and she echoed the comments already made about the advantages of the H145's large cabin. "I can treat the patient inside the 145 very easily, much better than the 135, in which it was very difficult because of the small space available," she said. "My seat slides front to rear, so I can treat a patient from head to foot while in flight. In the old helicopter my seat was fixed by the patient's head so it was difficult to both monitor and administer treatment

while flying." The ease and speed of loading patients through the larger, lower rear doors was another point that drew her praise. On-board medical equipment is comprehensive and includes oxygen, full 14-channel EKG, a respirator, defibrillator and invasive blood pressure monitoring. Soon to be added is an automated cardiac resuscitator which was too large to fit into the 135, but will comfortably fit inside the H145's cabin, freeing up the medical personnel from the need to physically resuscitate when their time can be better spent giving further treatment and monitoring a patient's condition.

## SUPER SERVICE

The whole FinnHEMS operation is based on a 'super service' principle, which is not cheap but is extremely effective at maximizing the medical benefits offered by the service to Finnish society. The high-end capabilities of the H145 fit snugly into this ethos and the trouble-free introduction to service should garner further international interest and sales for Airbus Helicopters, while the FinnHEMS service model offers much from which other HEMS operators could benefit. **HO**

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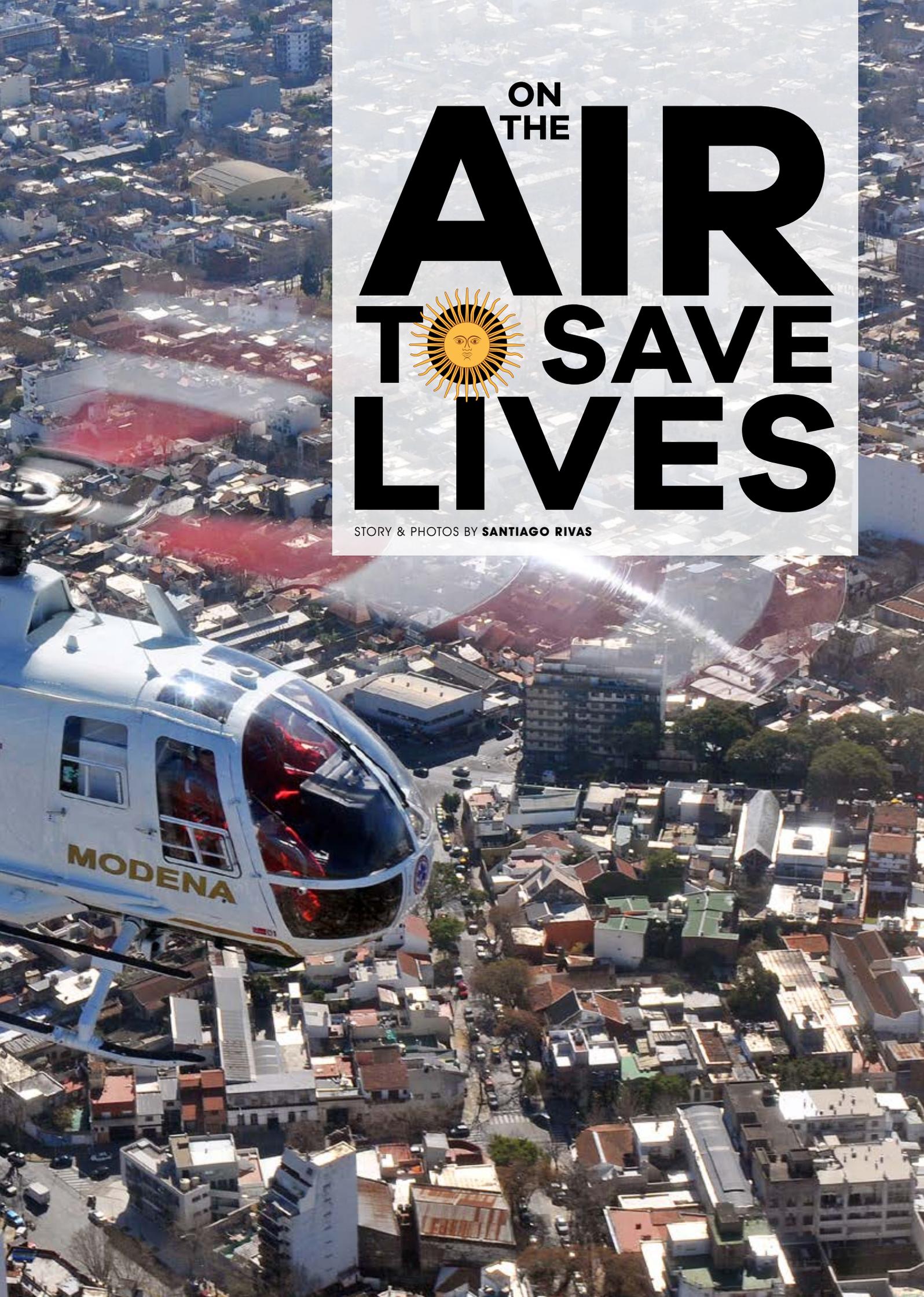
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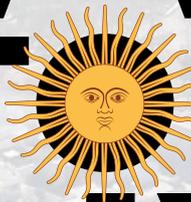
MODENA



ON  
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# AIR

TO



SAVE

# LIVES

STORY & PHOTOS BY **SANTIAGO RIVAS**

Modena HEMS is the first Argentine company to provide an air rescue service in the city of Buenos Aires. We look at how a service came to be in a city that has never known of these helicopter operations.



Gruppo Modena is an Argentinian company born during the nineties to represent luxury products, the first being Ferrari. In 2006 Bell Helicopters was added and with the establishment of subsidiary Modena Air Service, the company started to offer VIP transport, external load lifting, filming, and other task using the Bell 206, 222 and 430 helicopters.

In 2008 the company added a single MBB BO-105CBS fully equipped for medical evacuation. Modena HEMS (Helicopter Emergency Medical Service) formed to provide fully dedicated emergency medical services. In 2010 a second BO-105 was added and the fleet built to the current five. An Agusta A-109A will be added soon. One of the Bolkows currently operates in Neuquen province supporting the oil industry in the southwest of the country. Other helicopters operate from two company heliports in Buenos Aires, one at Puerto Madero, close to downtown. The other heliport is at the former aerodrome of Don Torcuato, to the north of the city, outside the district of Buenos Aires Autonomous City.

In December 2010 Modena signed an agreement with SAME, the emergency service of Buenos Aires city to provide a permanent service for medical

evacuation with the service being paid for by private companies through donations. Their value was really noticed following a train accident on 22 February 2012 in which 51 people died and more than 700 were injured. The two Modena helicopters had at the time were mobilized to accident site at the 11 de Septiembre train station, landing on a small street to evacuate the nine most seriously wounded.

## ON ALERT

---

Pilot Eduardo Forgan, Operational Co-ordinator of the service, explained that they work after a request from the SAME, flying with a crew including an emergency specialist doctor, the pilot and a technician who is also a fireman. "The SAME has established in which conditions they will activate the helicopter and according to this they call us. At the moment when they call us, the doctor start a series of co-ordinations, the technician too and the pilot starts the engines of the helicopter. We take off in three minutes. Sometimes it happens that we arrive so fast to the place that they are still organizing the safety for the landing," explains Forgan. He adds, "in Buenos Aires city there are two helicopters designated for full time service, one at 3 minutes of alert and the other at 40 minutes. One is at Madero heliport and the other at Don Torcuato."





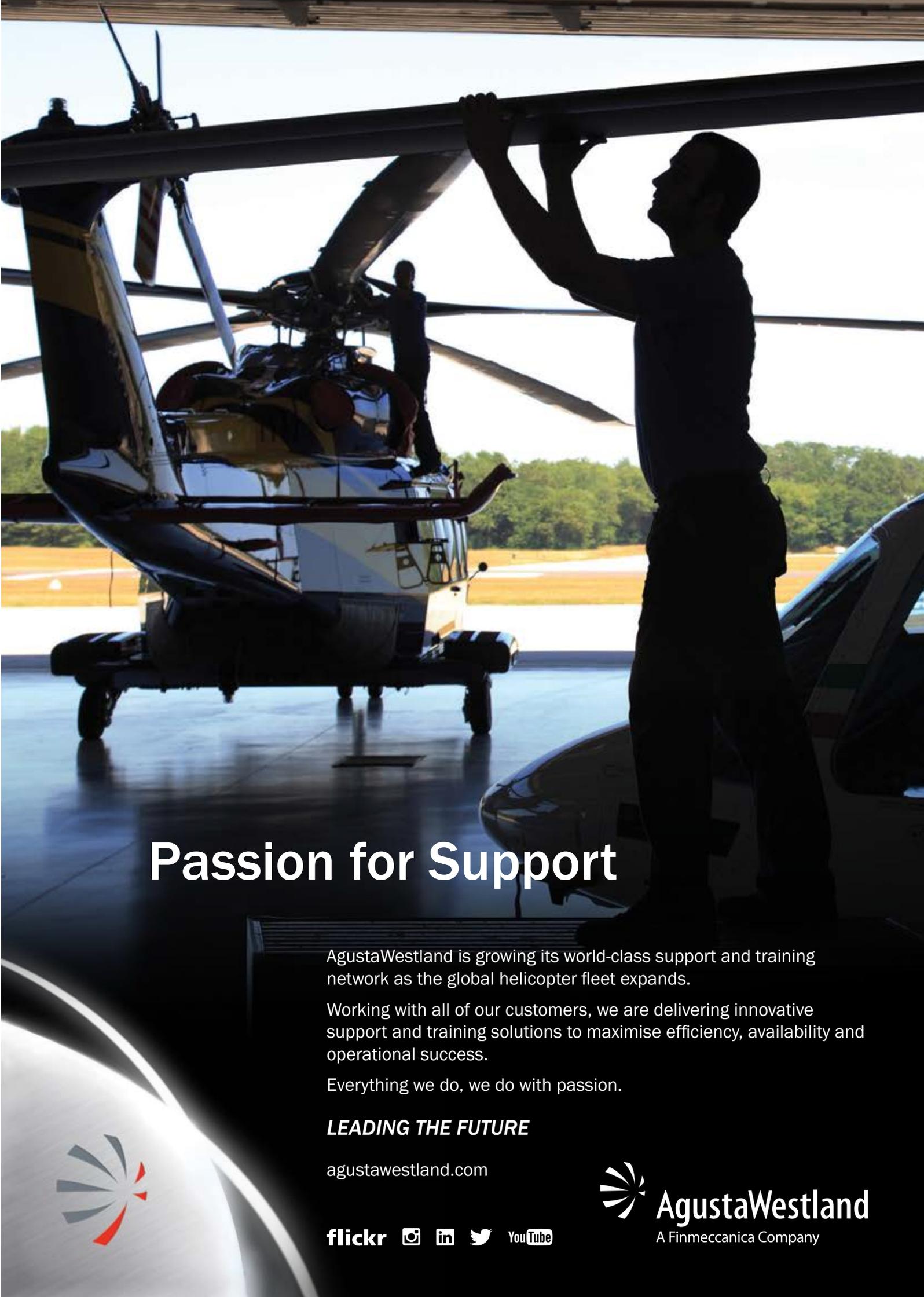


Of the two other helicopters, one is usually in maintenance and the other is used to accomplish other agreements with companies or organizations.

Each morning, each of the alert crew at Puerto Madero makes begins their daily task. “The pilot looks for the aeronautical information, the operational technician reviews the helicopter’s medical equipment and the doctor reviews all that’s related to his work including oxygen, equipment batteries, etc. We also call the hospitals to do a system check to ensure they are prepared to receive the helicopters. Then we call to the SAME and inform

them who is the crew on alert for that day and they advise us if there’s any problem with a hospital or something that may force us to go to a different hospital,” explained Forgan.

One of the main advantages of using a helicopter is that the hospital doesn’t need to be close to the place of the accident. Crossing the entire city only takes four and a half minutes by helicopter. Forgan said, “When there’s a big accident, like the case of 11 de Septiembre station, the closest hospitals get saturated, so we took the wounded to the next available. Also, according to what the wounded had, we can take



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him directly to a specific hospital to be better treated. As for example, if he has burns, we take him to the Burns Institute.”

## CITY OPERATIONS

Because an airborne medical evacuation system did not exist until Modena, there are very few places for BO-105s to land in Buenos Aires. Also, when the service began, there was little knowledge by the police, fire department and ambulances about the requirements for safely operating the helicopter. Since Modena started operations though, they have trained the personnel at all the fire and ambulance stations, the Metropolitan and Federal Police, and the highway safety personnel on how to provide safety for the helicopter’s operation.

Initially, they identified 130 possible landing sites in the city, “but this is very dynamic, because you can go

tomorrow to a place and somebody has put up a cable. When we train the ground teams we explain them how to detect the places where the helicopter can land, size, kind of surface and the problem of cables and obstacles. Also, they learn which signals they have to give for the helicopter to land, which ones if they have to abort and, once on the ground, how they have to approach, help carrying the wounded, etc,” Forgan explained. “When there’s an operation in urban areas, one tries to look for a place depending on the conditions. We are also in communication with the SAME and through them, with the firemen and police. We perform what we call a small circuit, which is a verification of the place for the size of the streets, antennas, etc. and we try to coordinate with the people below for the police and firemen to close the street, and secure the area. This happens in only one or two minutes.”





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Because most of the hospitals on the city don't have their own helipads, the crew have to look for nearby streets and parks with space for the helicopters to land and coordinate their use with the city government, firemen and the hospital and individual protocols have to be prepared for each makeshift pad's use. According to Forgan, "The firemen, policemen and the ambulance personnel are always learning and the hospitals are becoming accustomed to the operation and ensuring operational security."

## EVACUATION

Most of the medical evacuations Modena perform are the result of traffic accidents. These happen mainly on avenues and highways, where the traffic jam generated by the accident itself makes it difficult for the ambulances to attend. The highway usually provides a perfect place for the helicopter to land, as usually there's no traffic on the road after the accident location. "Initially it was established that once we

arrive at the place there would already be someone attending the wounded, usually a SAME ambulance," Forgan noted. "But the experience has shown us because of the speed of the service and that usually only a few minutes pass between the call to the SAME, that sometimes we are the first to arrive, even occasionally the drivers are the people that close the traffic for us to land."

"On average, we carry five times more motorcyclists than any other wounded and sometimes other motorcyclists are the first to attend to the wounded and close the traffic so we can land." Javier Revilla, one of the six operational technicians adds, "the quantity of accidents change, in summer they are fewer but more serious. This is because there are fewer cars but then the people drive faster."

The results being achieved by the Modena operation has been very good and the city is becoming more prepared. The ground personnel is now accustomed to working with the



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helicopters and in selecting the landing places. The organization of the move of the patient from the accident to where the helicopter lands has improved because sometimes the two locations are not very close to each other. These days, the main restrictions are no night operations because there are a lot of obstacles in the city that are not illuminated, such as antennas and buildings. “Usually at night we perform planned flights,” Forgan explained, “for example from the domestic airport

to a hospital that has a heliport with illumination.”

## OTHER AGREEMENTS

Besides the SAME, the company has agreements with the Metropolitan Police (to evacuate wounded policemen), with the harbor terminals, an insurance company (providing assistance to their customers up to 150km from Buenos Aires), the Polo Argentine Association and the Argentine Army Campo de Mayo facilities.





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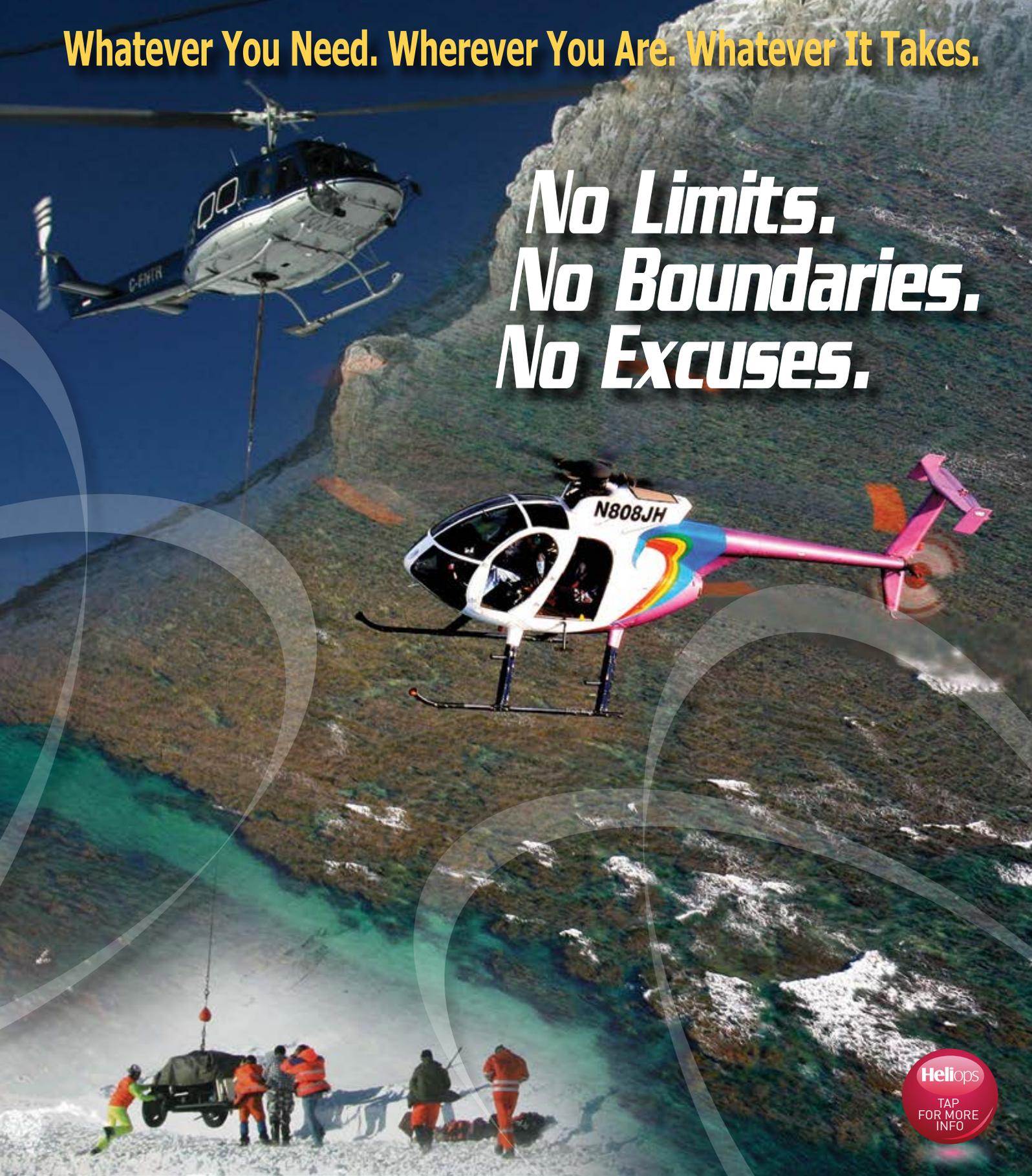
## THE MBB BO-105

Despite BO-105s being a fairly old helicopter, Forgan believes they are very dependable, very easy to operate at a relatively low cost. “We will still have spares for the next ten years” he said. “It’s a small helicopter, ideal for urban operations, can land on an intersection, but the disadvantage is for the doctors getting access to the patient, because they have little space.”

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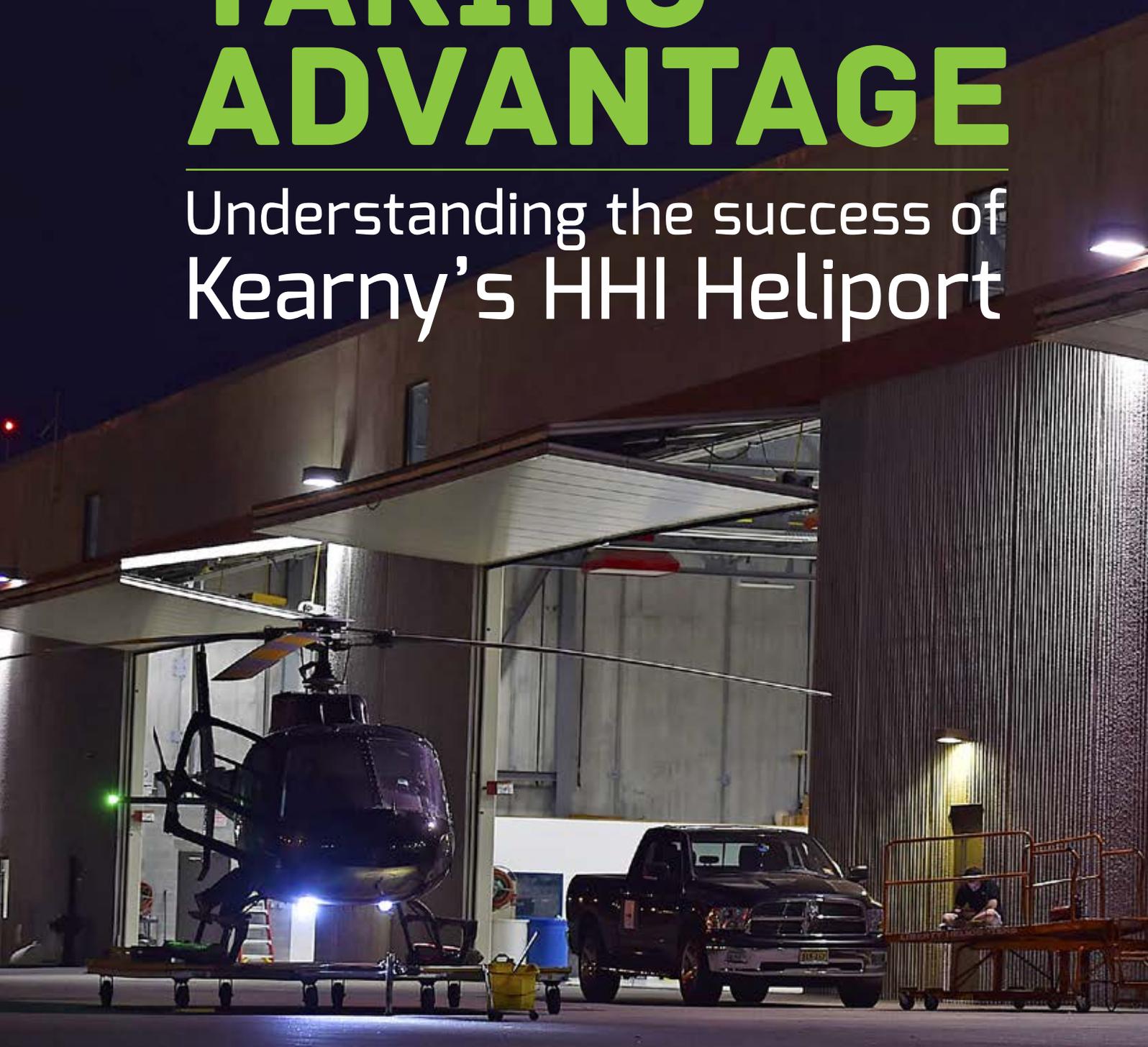
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STORY BY LEIGH NEIL | PHOTOS BY NED DAWSON







The Helo Holdings Inc. heliport (commonly referred to as either HHI Heliport or Kearny

Heliport) opened in December 2010 and is the first helicopter-only FBO in the NYC/Manhattan area. A mere two minutes flying time from Manhattan and New York City, it operates 7am to 7pm, seven days a week from a site at Kearny's River Terminal Development. HHI heliport is a full-service FBO that offers pilot facilities, fuel, parking, maintenance facilities, hangarage and storage; all in modern, well designed premises.

The Northeast corridor is the busiest civil helicopter operating area on the globe and HHI perfectly positioned itself to benefit from that environment. Nothing to do with that positioning, however, came about by chance. The driving force behind HHI and its success is Michael (Mike) Renz (Chief Operations Officer), who has been ably assisted and supported throughout by Jeff Hyman (CEO / VP sales and marketing). Both men are major investors in the heliport company. Renz is vastly experienced after 35-plus years in the aviation industry with well over 15,000 flight hours logged, FAA approval as a check-airman and full maintenance engineering qualifications. He and Hyman have a history over many years of working together in Analar Corporation, of which Renz is the owner and president - a long-established aviation company with a division specializing in private and charter helicopter operations, while Hyman is currently Analar's VP of sales and marketing. Hyman obviously

admires Renz and considers him a mentor and role model - almost a father-figure, recalling that it was Renz who passed on so much of his extensive knowledge to help Hyman get up to speed with the helicopter industry when the pair first met.

In about 2001 they were considering expansion and diversification opportunities within the aviation industry around NYC and Manhattan, initially investigating an existing helicopter city-shuttle business model with a chequered history. After eliminating that option when it became apparent that the distance involved guaranteed marginal profitability at best, they came up with the concept of establishing the area's first and only helicopter-only FBO much closer to the epicenter of the city's air traffic demands, taking advantage of the substantial helicopter numbers and traffic in and around the metropolitan areas of New York City and Manhattan.

The intention was to build such a facility very close to Manhattan and offering all the services and amenities expected at a corporate airport. It took a further four years to finally secure a suitable piece of property; the 7 1/4-acre site at River Terminal Development Corporation in Kearney, New Jersey. As it turned out though, that was barely the beginning. Land use variance, municipal town approval, FAA/DOT permits, and a reasonable lease with the landlord all had to be secured or negotiated and it took about six years in total to finally obtain zoning approval for the business. Hyman described the process as 'a labor of love - or insanity!' The result



has undoubtedly been well worth the effort, however. From the day HHI heliport opened its doors, Analar has had tenant clients based at the facility. Liberty Helicopters was the first permanent tenant from day one – conducting predominantly helicopter tours from the city, with additional charter work and fueling from Kearny – but the number quickly grew and the heliport now boasts six tenants. Apart from operations by Analar, other regular clients and the tenant operators, the HHI heliport is extremely

busy with itinerant traffic. Private, corporate and commercial operators appreciate the ability to refuel, park, wait or rest at such a miniscule transit-distance from Manhattan and NYC. As Hyman explained, “We’re in our fourth year now and we’ve become part of the fabric of the community, both here in Kearny and in the minds of the New York aviation fraternity. We pride ourselves on taking care of our clients and tenants and the community now knows that.” For regular and frequent users, a reduction in transit time of



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# Heliops







ten minutes or more on every flight can equate to savings of hundreds of thousands of dollars every year, so it should come as no surprise that the HHI heliport has become so busy. Vic Garha has managed the day-to-day business of the heliport since it opened and he made the observation that the reduced transit time also reduced the maintenance frequency and costs for operators, as less non-productive flight-time is logged on machines, both operationally and for maintenance transfers.

The building that previously occupied the land where the facility

now sits was originally a Model-A Ford manufacturing plant and, during WWII, a submarine construction facility so a report was required to ascertain the historical value of the site before any construction approvals could be granted. Luckily for the HHI plans though, that original building had been altered so many times that it had lost its historical value and could be demolished to make way for the new heliport. Kearny is one of the only towns close enough to the city that is predominantly heavy industrial, so

THE NORTHEAST CORRIDOR IS THE BUSIEST CIVIL HELICOPTER OPERATING AREA ON THE GLOBE AND HHI PERFECTLY POSITIONED ITSELF TO BENEFIT FROM THAT ENVIRONMENT.



noise is not an issue. In fact, it was discovered when testing the ambient noise levels that noise from the trucks on the nearby highway is actually louder than that generated by the helicopter operations. One requirement placed on HHI as part of the zoning approvals was that the facility be built above the height of the 100-year flood level. This proved to be fortuitous as it helped mitigate the amount of damage inflicted by Hurricane Sandy in late October 2012, but the heliport did not survive the ‘super-storm’ unscathed. The fuel truck was drowned and the whole fuel farm suffered water ingress, the rectification of which necessitated a two-day exercise of draining, flushing, draining and re-filling. New York and New Jersey were particularly badly affected by Sandy and, thanks to its elevated location, HHI was the only heliport in the area dispensing Jet-A fuel until about the end of that November. Since then, the heliport has also ensured a large generator is permanently onsite, capable of powering the entire facility and eliminating dependence

on municipal power supplies – in case of any future event that may threaten external supply.

HHI’s Kearny heliport is dedicated solely to the helicopter community and alongside the 30,000 square-ft hangar and 24,000 gallon Jet-A fuel farm, boasts a 1,500 square foot pilot lounge offering comfortable furniture, free coffee and tea, a ‘snooze’ room, shower, wide screen Direct TV and wireless internet. While tenant operators also have their own office space and pilot’s lounge, their pilots often use the HHI facilities too, as Garha explained. “The regular pilots here will often drop into the public pilot’s lounge just because they want to mingle with other pilots once in a while. As you can see, our board is full of different machines and the local pilots sometimes like to just meet and hang out with the other guys.” New York on Air is a more recent tenant at HHI, running their rapidly growing aerial photography and imagery business from the facility and basing their AS355-F2s there, while the OH-58C of the Newark Police is also

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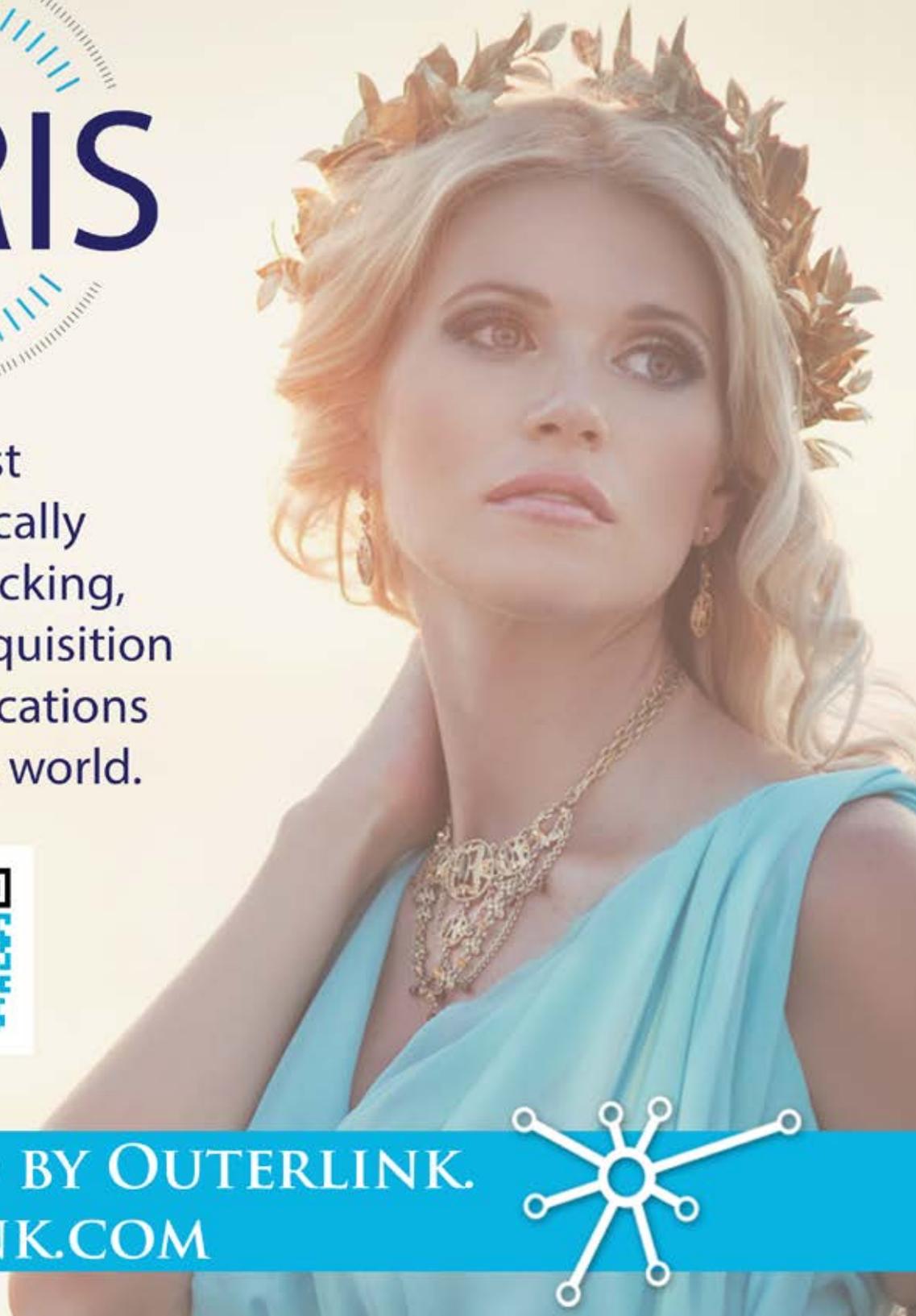
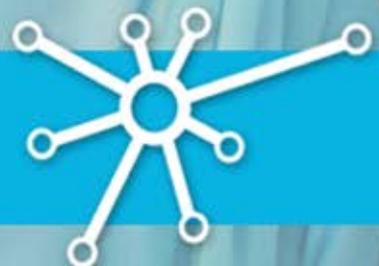


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based at Kearny. Both Liberty and Analar have a maintenance presence on site, with their own maintenance personnel working on their and their customers' machines. For major overhauls and the like, however, Analar will re-locate their machines to Princeton, where they have a major maintenance facility for both rotary and fixed-wing aircraft.

The current hangar is filled with around 24 helicopters and the success and popularity of HHI's dedicated facility is such that a major expansion project is underway. A second hangar will give plenty of room for additional machines and Kearny-based clients, while the project's two-story administration section will include op's office space for tenant-customers

as well as servicing HHI's own office space needs. Mezzanine space and some existing modular office units provide yet further tenant-hosting options. It took two years to gain approvals for the new additions, which are expected to take 8-10 months to build and should be ready 'with a little bit of luck' by the end of the second quarter of 2016, enlarging the land-footprint of the facility to nine acres, up from the current 7 1/4 and increasing total hangarage to more than 45 machines. "I think we'll be in pretty good shape with two hangars," said Hyman. "It's a thriving business and we're doing pretty well right now. It took 18 months to two years to fill up our first hangar because we were a new operation; in fact, we

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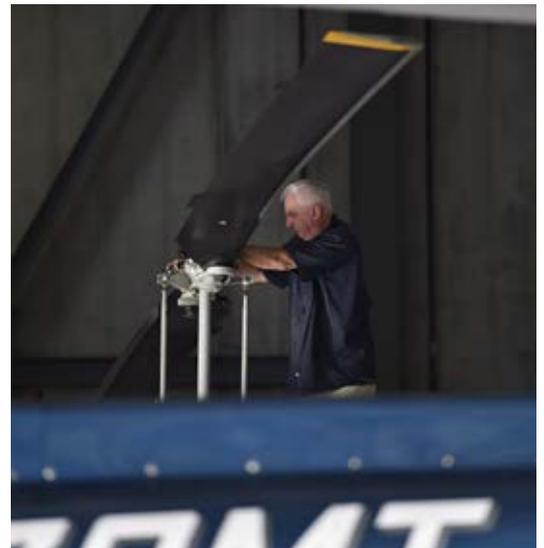
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were probably the first new aviation structure in New York in thirty years – either airports or heliports.” Hyman then advised that 80% of the space in the new hangar is already spoken for by just two new tenants. While no plans are in place for further expansion beyond the current project, Hyman did point out that there was another parcel of adjacent land that could be utilized if necessary in the future. Any future development would most

likely be focused on increasing the already comprehensive maintenance and overhaul capabilities of the facility. Steady growth has been a feature of the Kearny operation and Garha remarked, “Its been getting busier right from day one. Every summer we seem to be pumping more and more fuel and seeing more machines.”

Over and above the normal increasing demand, there are times of extraordinary traffic. Garha gave

# Heliops

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an example of two companies' fleet arriving while all of Liberty's machines were on the ramp, around eighteen helicopters there at one time and all wanting fuel. Another example given was the occasional exercise by 'Marine-

One' (the presidential helicopter flight). "When they practice going in to the Wall St heliport that airspace becomes effectively closed to all traffic," he remarked. "That means that all those machines end up coming out here for a



time. That's how we get about twenty helicopters at once here. It becomes a mad-house, real fast!"

Tenants have 24-hour access to the heliport, but the operational hours for HHI are 0630-2100 during the summer and 0600-1900 during winter, when tourist numbers are well down. Jet-A fuel is available at Kearny – either with or without 'Prist' additive, depending on customer preference – and fuel sales are obviously a large part of the revenue and profitability of any FBO. For that reason HHI encourages operators to use the facility with financial benefits to uplift fuel there. Ramp and parking fees are waived for machines that uplift a specified minimum amount of fuel: 30 gallons of fuel per landing for light helicopters; 40 gallons for medium helicopters, and 60 gallons for the heavies. According to Garha, fuel demand at HHI can be such that the two 12,000 gallon tanks need refilling two or three times a week. After landing, parking is free for the first 3 hours, after which parking fees are assessed based on helicopter weight – from \$30 to \$70 per hour, based on aircraft weight. This arrangement adds to the popularity of the heliport as a wait-stop for machines dropping off clients in the city, as in-city heliports invariably charge landing and/or parking ramp-

fees. Those fees could be up to around \$1,500 for a machine waiting two hours so a two minute flight to Kearny really does become a 'no-brainer'; particularly when the fuel is also cheaper than at an inner-city heliport. Scheduled parking is also available upon request to the operations office staff.

When asked what he most enjoyed about working at HHI heliport, Garha was most emphatic that it was the people, both staff and visitors. "The guys working here are all good fun. We're pretty laid back so I really enjoy the training side of things and all the pilots have never been anything but pleasant," he enthused. "Jeff is great to work for; he's busy with his own management and planning so he lets me hold the reins here. I'm a licensed AME mechanic and, while I've been out of practice for a while, it's been great to get involved here and immersed in it again. There is still a passion for aviation in everyone involved and just makes everything so much more enjoyable."

With an already enviable reputation in the NorthEast aviation world, it seems likely that the imminent expansion of the HHI heliport facilities and services will serve only to improve their standing and market share in the greater New York area. **HO**





# TWELVE OPERATIONAL PITFALLS FOR HELICOPTER PILOTS

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Pilots, particularly those with considerable experience, try to complete a flight as planned, please passengers, meet schedules and generally demonstrate the "right stuff." This basic drive can have an adverse effect on safety and can impose an unrealistic assessment of piloting skills under stressful situations.

---

BY IHST (INTERNATIONAL HELICOPTER SAFETY TEAM)

# PEER PRESSURE



ven worse, repetitive patterns of behavior based on unrealistic assessments can produce piloting practices that are dangerous, often illegal, and will ultimately lead to mishaps. Here are 12 of these possibly dangerous tendencies or behavior patterns:

**Responding to Peer Pressure** – This is poor decision-making based upon emotional responses to peers rather than evaluating a situation objectively.

**Mental Expectancy** – The inability to recognize and cope with changes in a situation different from those anticipated or planned. Visual illusions and similar aural sounds occurring at the “wrong” time often lead to such miscues.

**Get-There-Itis** – This “disease”, common among pilots, clouds the vision and impairs judgment by causing a fixation on the original goal or destination combined with a total disregard for any alternative courses of action.

**Duck-Under Syndrome** – The tendency to “sneak a peek” by descending below minimums during an approach. Based on a belief that there is always a built in “fudge” factor that can be used or on an unwillingness to admit defeat and shoot a missed approach.

**Scud Running** – Pushing the capabilities of the pilot and the aircraft to the limits by trying to maintain visual contact with the terrain while trying to avoid physical contact with it.



# Heliops







# RULES

**Continuing Visual Flight Rules into Instrument Conditions** – The all-too-often result of the above mentioned practice of scud running when this becomes the only alternative to flying into the ground. It is even more dangerous if the pilot is not instrument qualified or is unwilling to believe what the gauges are indicating.

**Getting Behind the Aircraft** – Allowing events or the situation to control your actions rather than the other way around. This is characterized by a constant state of surprise at what happens next.



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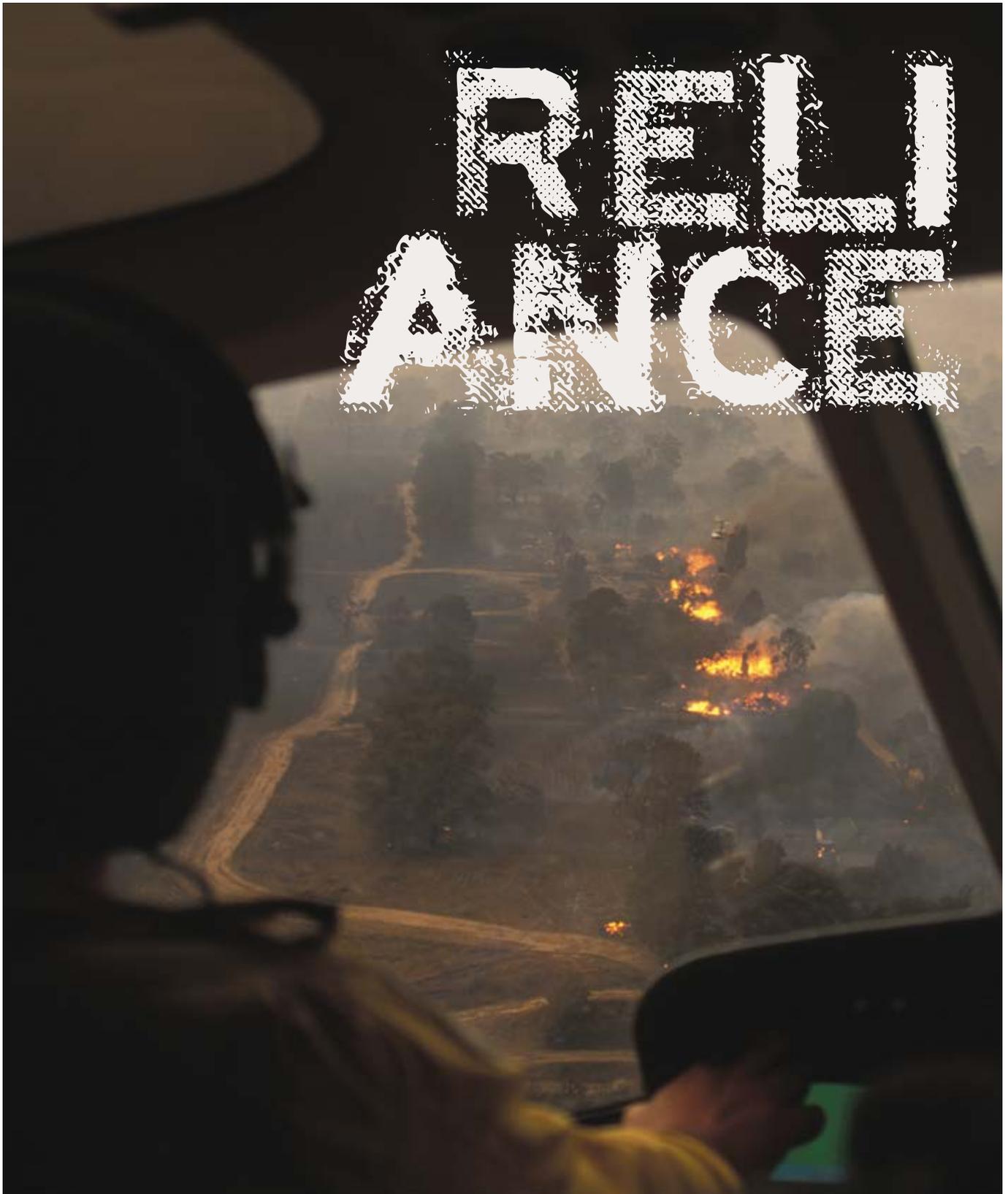
# AWA RES NES

**Loss of Positional/Situational Awareness** – Another case of “getting behind the aircraft” which results in not knowing where you are, and an inability to recognize deteriorating circumstances and/or the misjudgment of the rate of deterioration.

**Operating Without Adequate Fuel Reserves** – Ignoring minimum fuel reserve requirements under either Visual Flight Rules or Instrument Flight Rules. This is generally the result of overconfidence, a lack of flight planning, or deliberately ignoring the regulations.







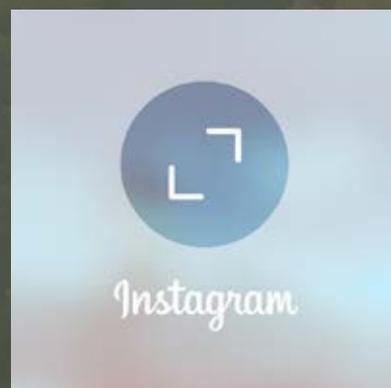
**Descent Below the Minimum En Route Altitude** - The duck-under syndrome (mentioned earlier) manifesting itself during the en route portion of an Instrument Flight Rules operation.

**Flying Outside the Envelope** - Unjustified reliance on the (usually mistaken) belief that the aircraft's high performance capabilities meet the demands imposed by the pilot's (usually overestimated) high performance flying skills.

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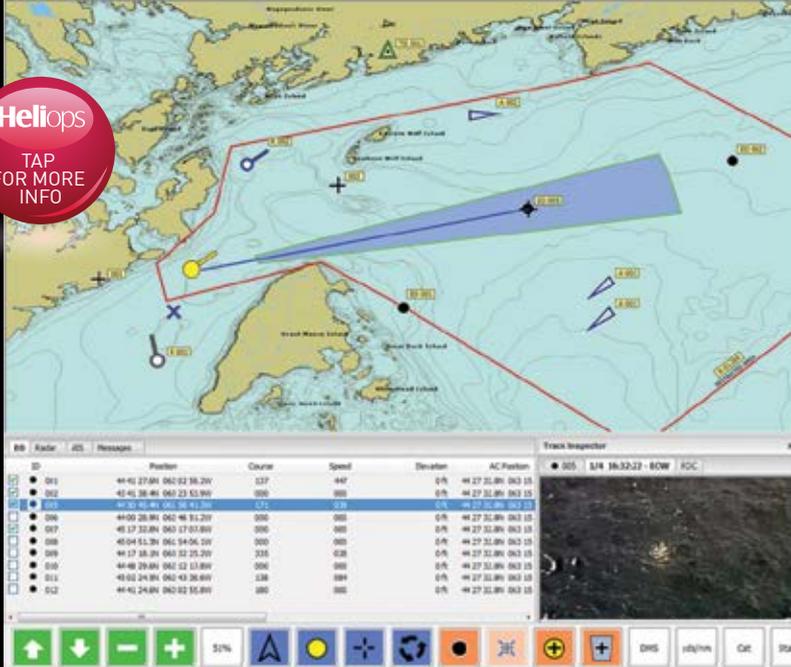
### **Neglect of Flight Planning, Preflight Inspections, Checklists, Etc.**

- Unjustified reliance on the pilot's (usually overestimated) short- and long-term memory of regular flying skills, of repetitive and familiar routes, etc.

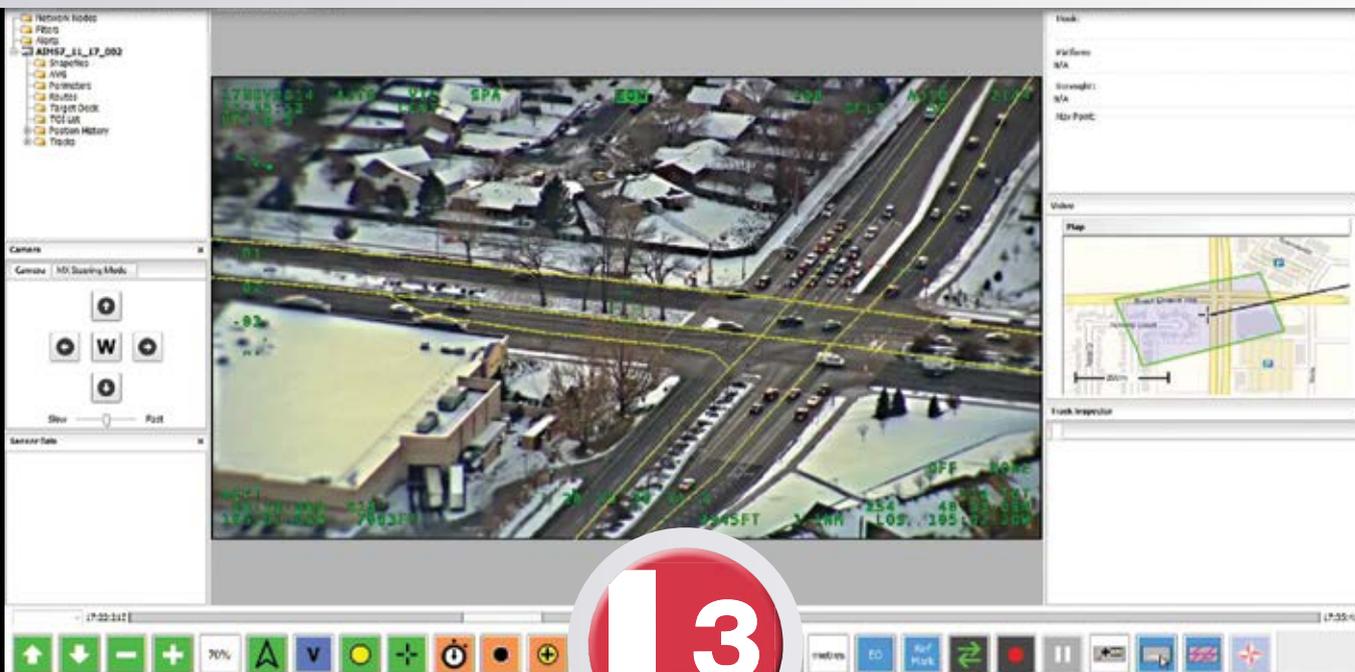
All experienced pilots have fallen prey to, or have been tempted by, one or more of these 12 dangerous tendencies at some time in their flying careers. Hopefully, they are natural mistakes that can be easily recognized for what they are and quickly avoided. HO

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