



# TRAINING MATTERS



**FLIGHTSAFETY  
HELICOPTER  
TRAINING PROGRAMS**

**BELL**

206B/L | 212  
214ST | 222 | 230  
407 | 412 | 430

**EUROCOPTER**

AS350 | EC135

**SIKORSKY**

S-70 | S-76A/A+ | S-76B  
S-76C/C+/C++ | S-92

## Agreement Expands NVG Training FlightSafety, ASU Collaborate on Training for All Missions

FlightSafety is teaming up with the acknowledged industry leader in night vision goggle training and support to expand simulation-based NVG training for all helicopter operators – regardless of mission or helicopter types. A new collaborative agreement with Aviation Specialties Unlimited introduces a new era of comprehensive, cost-effective simulation-based NVG training, which offers significant advantages over in-aircraft training.

“Our Customers will benefit from the addition of this NVG training to our wide variety of initial, recurrent, specialty and enhancement courses designed specifically for helicopter operators,” says Scott Fera, FlightSafety Vice President Marketing. *(continued on page 2)*

## FlightSafety Continues To Expand Professional Helicopter Training Options

This year FlightSafety celebrates its 60th anniversary, a legacy of professional aviation training that includes decades of simulation-based helicopter training. In that time, we've compiled a number of significant breakthroughs.

- First to engineer, manufacture and deploy a full flight, Level D helicopter simulator.
- First to develop and equip our simulators with electric motion and control loading.
- First to develop and deploy Level 7 FTD technology for effective, cost-efficient training.

Despite these and many other accomplishments, we find as we travel to aviation industry events that not everyone is aware of the full depth and breadth of our helicopter training options. A quick glance through this newsletter should give you a good idea of the wide range of training we offer.

And we never rest on our laurels. In the past year, we've added two Eurocopter models to our lineup, and we're in the process of expanding our night vision goggle training across our network.

We were founded in 1951 on this principle: "The most important safety device in any aircraft is a well-trained crew." That's as true today as it was then. Thank you for everything you do to enhance safety.



**George Ferito**  
FlightSafety  
Director, Helicopter  
Business Development

## NVG Training *(continued from page 1)*

Mike Atwood, President of ASU, agrees. "Collaborating with FlightSafety on NVG training provides our mutual Customers with many important benefits. Conducting NVG training in a simulator is safer and more effective than doing it in a helicopter and eliminates the need to remove the aircraft from revenue service. Simulation-based training allows the operator to conduct NVG training at any time of the day or night. In the aircraft, NVG training can only be accomplished at night. Our team of experienced, certified trainers will now be able to train at FlightSafety facilities, adding greater convenience for Customers."

ASU was established in 1995 to meet the growing demand for NVG systems in both public and civil aviation operations. Since then, the company has emerged as the industry leader in sales, maintenance, training and cockpit modifications for advanced night vision technology. ASU assisted FlightSafety in the certification and FAA approval for the AS350 FTD in Tucson, Arizona, and has modified more than 600 aircraft through 18 Supplemental Type Certificates covering 53 aircraft types.

### Training in Tucson

NVG training is available at FlightSafety's Learning Center in Tucson, using the Level 7-qualified AS350 FTD. Other FlightSafety locations will be added in the future and will offer NVG training in full flight Level D-qualified simulators. The training is generic, meaning crews do not need type-specific experience to benefit from the instruction. It also means NVG training can take place either before or after type-specific training.

FlightSafety/ASU NVG training will provide in-depth instruction on the equipment, focusing on the efficient and effective use of goggles through scenario-based and mission-specific exercises. Training can be customized to meet the specific needs of government and military agencies as well as business and commercial helicopter operators, including emergency medical services, law enforcement agencies, search and rescue, airborne surveillance, security and fire and rescue.

"Simulation-based NVG training is much more comprehensive than trying to accomplish this instruction in a helicopter," says George Ferito, FlightSafety Director, Helicopter Business Development. "And it makes financial sense. NVG systems have become critical, essential tools to an ever-growing number of helicopter operations. This FlightSafety-ASU collaborative training is hands-down the best – and the most economical – instruction available."



Aviation Specialties Unlimited

Since 1995, ASU's goal has been to implement night vision in the civil aviation market to increase operational safety and improve mission capabilities. The company focuses on providing a turnkey solution to customers.

- Night vision goggles and replacement parts
- Service/inspection for goggles
- NVG cockpit lighting solutions, installed by 145 FAA-approved repair station technicians at the ASU facility in Boise, Idaho, or at the customer's facility
- Cockpit replacement parts provided by ASU's FAA-approved PMA
- Initial and recurrent training for flight crews on the use of night vision via an FAA-approved 141 Training Program and/or 135 Air Operator Certificate
- Assistance in establishing night vision programs

ASU has completed nearly 600 aircraft STC installations and sold more than 2,500 aviator systems. For more information, call 208.426.8117 or e-mail [info@asu-nvg.com](mailto:info@asu-nvg.com).



# Metro Aviation Takes the Lead on Simulation Training

*Mike Stanberry  
President  
Metro Aviation*

## **Q What role does training play in your overall safety strategy?**

**A** It's pivotal. It's at the top on our overall safety list. I've always been big on training. We started simulator training three or four years ago, but before that we had a monthly instrument proficiency program. That's basically an instrument check ride that is done with a safety pilot and the training pilot. We've now dropped that back to quarterly since we've been doing simulator-based training.

## **Q What types of training do you do?**

**A** In addition to simulation-based training and the quarterly instrument check rides, we do twice-a-year check rides, even on the VFR programs, which is twice what is required by the FAA. We require all pilots to participate in a monthly computer-based question-and-answer test designed to ensure that their knowledge is up-to-date. And we send our check ride pilots and lead pilots out for additional training.

## **Q In your experience, how does simulation-based training compare with in-aircraft training?**

**A** There's no comparison. You can do things in the simulator you can't do in the aircraft – that just are cost- and/or safety-prohibitive in the aircraft. For instance, gradually making the weather worse and worse and worse when you're putting people through IMC training. You just can't do that adequately in an aircraft. No. 1, the trainee knows he's fixing to do IMC procedures when you pull the goggles out and put them on. That automatically takes away some of the, 'Uh-oh, I just flew IMC.' Probably the next most important thing that's different about the simulator training – it's completely third party. It's not the guy's buddy or friend or co-worker, it's somebody that's arms-length.

## **Q Why is scenario training important?**

**A** The real buzzword in the industry now is scenario-based training. On the check rides we're alternating with day and night, LZ to pinnacle approaches – all kinds of training scenarios. We're constantly looking for new challenges, both for the classroom and in the simulator, that will keep our pilots sharp and expose them to potential real-world experiences, so they'll know exactly what to do when an unexpected situation arises in the field.

## **Q We understand all of your pilots complete inadvertent instrument meteorological conditions training. Why have you made that a priority?**

**A** Our pilots train for IMC quarterly. It's a major priority for us because that's the predominant accident mode in the industry – EMS at night in IMC. We've been very satisfied with the training and are confident that should one of our aircraft go IMC, our pilots will be well prepared to handle it safely, calmly and correctly.

## **Q You've taken a leadership role on rigorous, recurrent training, and now simulation-based training. Do you expect the industry to follow your lead?**

**A** Yes, if for no other reason than from a competitive point of view. First of all, it's the right thing to do. But sometimes people have to be inspired for other reasons. I think what will catch people's attention is that we're doing it, and we're one of the larger operators. The word's going to be out, and they're going to have to keep up with the Joneses. An aggressive training schedule helps a lot with insurance, too. Our underwriters know that we send all of our people to simulation training. It certainly goes a long way in letting them know that you're serious about safety.

## **Q Any other thoughts?**

**A** We're extremely pleased that FlightSafety has partnered with us to build the world's first Eurocopter EC135 full flight simulator. It's been long overdue. It's nice to partner with the best training company in the world, and that would be FlightSafety.





# FAA Qualifies Lafayette's Bell 407 FTD to Level 7

The FAA has qualified Lafayette's new Bell 407 advanced flight training device to Level 7 – the highest possible level for an FTD. The qualification is good news for the growing number of helicopter operators who recognize the value, efficiency and effectiveness of training using Level 7 devices as opposed to training in the actual aircraft," says George Ferito, FlightSafety's Director for Helicopter Business Development. "As a result of these new devices, operators of smaller, turbine-powered helicopters can now benefit from the same level of professional training we provide fixed-wing and larger helicopter Customers."

The new Bell 407 FTD is being used for initial type training, recurrent training, inadvertent IMC training and a wide variety of mission-specific and scenario-based programs. The device is designed to replicate the unique operational requirements of emergency medical services, offshore, law enforcement, electronic news gathering, paramilitary operations and others.

The device allows training to emphasize maneuvers and scenarios not safely or realistically suited for the aircraft. Among these are engine fires, loss of tail rotor effectiveness and starting problems such as hot or hung starts.

## Advanced Capabilities

The FTD features FlightSafety's advanced VITAL X visual system, which provides the most realistic and comprehensive training scenarios available for the aircraft. Night vision goggle capability will be added in the near future.

Training in a Level 7 FTD, FAR Part 135 operators can, with their Principal Operations Inspector's approval, meet initial and recurrent training requirements and checks with only minimal actual aircraft time. FlightSafety adopts the certificate holders' approved training program to the flight training device and can also add areas of emphasis requested by the operator.

Part 91 operators can also use the full range of capabilities offered by the Level 7 flight training device and its advanced visual system to ensure the most effective, risk-free training for their pilots.

The Lafayette Learning Center also offers training for the Bell 206 using a Level 7-qualified flight training device as well as programs that feature full flight Level D-qualified simulators for the Sikorsky S-92 and Sikorsky S-76C+ and C++.



# There's No Training Like FlightSafety Training

By Lyn Burks, *Rotorcraft Professional Magazine*

*EDITOR'S NOTE: Pilot and entrepreneur Lyn Burks trained with FlightSafety, then wrote this unsolicited testimonial. His training at West Palm Beach was typical of what Customers receive at FlightSafety helicopter Learning Centers.*

Recently, attending an S-76C++ transition course at FlightSafety's West Palm Beach Learning Center, I was reminded of the vast difference in the level of training provided by FlightSafety as compared to other instruction I have experienced.

## Training Highlights

Aircraft systems training both in and out of the class was intense, in-depth and covered all of the usual suspects, which included fuel, hydraulics, power plant, avionics, autopilots, drive train, as well as the brain drainer of all classes, the S-76 electrical system. Despite the complexity of these systems, FlightSafety instructors masterfully integrate their personal experience with physical aircraft components and computer technology to give you a well-rounded and simplified view.

The creative use of technology makes FlightSafety training stand out from the rest of the mortal flight training world. Examples include dynamic PowerPoint presentations, classroom computers, state-of-the-art full flight simulators and, last but not least, the Graphical Flight-deck Simulator.

The GFS is an amazing procedures trainer that allows you to sit in a computer-generated cockpit and perform many procedures from start-up to emergencies to instrument flying procedures. There does not need to be an instructor present, which means you can spend extra hours learning your way around the cockpit.

Flight simulators are among the most valuable training tools available to pilots. They allow situations that cannot be replicated in the real aircraft. They also allow training at a fraction of the cost of flying the real aircraft.



*Lyn Burks holds helicopter ATP and CFII certificates and has PIC experience on Sikorsky S-76C+, Agusta A109E Power, B206, R44, R22.*

At West Palm Beach, FlightSafety uses full motion Level D simulators for the Sikorsky S-76, S-92 and the S-70. The technology involved is staggering, as is the level of realism from the cockpit.

## Character Quality

I am always amazed by the quality of the instructors. My classroom instructor had been flying the S-76 for what seemed to be a jillion years. He spoke of the helicopter like a proud dad talks of his kids. He had been there, done that. I received much more information than what was in the manual or on PowerPoint.

Before every sim session, you get a 30-minute brief to cover the maneuvers and procedures to be flown in the simulator. My instructor made these briefs entertaining and painless. As an experienced helicopter instructor myself, I thought he applied the perfect amount of carrot and stick to push us to new levels of performance and understanding.

## World-Class Facility, Customer Service

From the moment you walk through the doors, one word sums up the FlightSafety atmosphere: Professional with a capital P. It is not opulent, overstated or over the top. It is clean, neat and very inviting to pilots, with a truly customer-oriented staff.

## New CRM Training Tailored for Helicopter Operations

There's nothing like the adrenaline-pumping challenge of embarking on a new helicopter mission, working with a closely knit crew to get the job done safely and efficiently. That's why new training caters specifically to the unique resource management demands of helicopter crews.

Crew resource management training – long recognized as a fundamental and essential element of an overall safety strategy – now has been tailored specifically for helicopter operations and the interactions among helicopter pilots, flight assistants, air ambulance crews, maintenance personnel and flight operation specialists.

### Enhances Decision-Making

Topics covered during the four-hour course include human factors, teamwork, communication, situational awareness, aeronautical decision-making, leadership and safety.

The training is designed to instill interpersonal skills that enhance appropriate and correct decision-making, and the working relationships between helicopter crew members with the objective of developing an increased focus on safety and the overall efficiency of flight operations.

“Customers who have taken advantage of this new CRM course at Helicopter Learning Centers in Fort Worth, Texas, and West Palm Beach, Florida, appreciate the comprehensive, real-world approach we have taken and agree that adopting the principles and practices outlined in the course will contribute to the safety of helicopter operations,” says Scott Fera, FlightSafety Vice President Marketing.



## CENTERUpdates



### DALLAS

#### Level D EC135 Simulator Now in Place

The new FlightSafety-engineered Eurocopter EC135 simulator has been installed in Dallas and is ready to begin delivering the significant benefits of simulation-based training for operators of this versatile aircraft. Dry lease training has begun and will be followed by initial and recurrent courses in fall 2011. The Level D full motion simulator features a 60x200-degree enhanced VITAL X visual system, as well as electric control loading and the quiet precision of a 60-inch electric motion base. EC135 training will include FlightSafety's exclusive SimVu debriefing system, which displays animated, graphical and video representations of each training session. The simulator accommodates NVG training and features continuous global high-resolution satellite imagery, presenting environmental conditions experienced during all phases of flight from takeoff to landing.

### LONDON FARNBOROUGH

#### S-92A SAR Crew Proficiency Training

This comprehensive three-day search and rescue course includes 10 hours of classroom, two hours of system integration and 11 hours in the S-92A Level D simulator. Classroom subjects include limitations, performance, quickstart procedures, autopilot modes, FMS search patterns and system malfunctions. Simulator training includes normal procedures, abnormal procedures, emergency procedures, VFR scenarios and IFR scenarios, all with an emphasis on crew resource management. Although designed primarily for flight deck personnel, SAR rear crew would add an essential element of realism to the flight training phase through normal crew cooperation, in-flight briefings and the integration of CRM in the simulator. These critical members of the SAR team are welcome to attend training at no additional cost. This course also is available at Lafayette and at West Palm Beach.

#### Integrated Multicrew S-92 Initial Training

Farnborough offers S-92 initial training with integrated multicrew cooperation. This JAA-certified course satisfies JAA training requirements for crewmembers with no multicrew experience who seek a type rating for the multicrewed S-92. The program is designed to accommodate pilots from differing backgrounds, cultures and languages. Any pilot with little experience in crewed aircraft would benefit from this course. The course covers basic crew resource management; checklist usage; standard callouts; emergency and abnormal flight procedures; basic aviation physiology; and stress management to name a few.





## FORT WORTH

### UK, Brazilian Agencies Approve Bell Programs

Several Fort Worth Bell programs have received international training approvals. FlightSafety has received Joint Aviation Authority Type Rating Training Organization approval from the United Kingdom Civil Aviation Authority for its Bell Helicopter 212/412 and 430 training programs. In addition, the Bell 212/412 simulator has been qualified by the European Aviation Safety Agency and the Bell 430 simulator has been qualified by the National Civil Aviation Agency of Brazil and by EASA. FlightSafety has provided factory-authorized training for Bell aircraft for more than 30 years. Fort Worth currently offers training for Bell 212, Bell 214ST, Bell 222, Bell 230, Bell 412 and Bell 430 aircraft.

## TUCSON

### FTD Earns MOT Certification to Level 7

The Eurocopter AS350 Level 7 FTD has been qualified to Level 7 by the Canadian MOT, another step in the process of earning certification from regulatory authorities throughout the Western Hemisphere. Training options for the FTD continue to expand as well, with a current focus on developing realistic training scenarios for long-line, law enforcement, forestry and more.

## WEST PALM BEACH

### S-92 Simulator Gets an Upgrade

The Level D simulator for Sikorsky S-92 training is being upgraded with Sikorsky's new avionics suite, to keep pace with avionics now being used in the field. The new suite includes FADEC, SAR and WAAS components. The simulator is expected to return to service by the end of July 2011. S-92 simulators at Farnborough and Lafayette are scheduled to be upgraded later in 2011 with the same up-to-date avionics package.

### Training Coming Soon for S-76D

Pilot and maintenance technician training is scheduled to begin in early 2012 for the next-generation Sikorsky S-76D helicopter. FlightSafety is designing and manufacturing a new Level D simulator to accommodate training for the new helicopter. The simulator is expected to be delivered, certified and ready to provide training by mid-2012.

### West Palm Training Highlights

- All of the center's Sikorsky helicopter simulators have been upgraded with FlightSafety's new enhanced VITAL X visual system.
- The center has applied for EASA certification for its S-76C+ and C++ maintenance programs. Approvals are expected by late 2011.
- Training is available for the Pratt & Whitney Canada PT6-36B engine (S-76B) and the PT6A Large engine series. Training for the 210S engine (for the S-76D) will begin in late 2011.

## FlightSafety Continues to Engineer, Build Advanced Simulators for Helicopter Training

Two new advanced-technology flight training devices to accommodate Bell Helicopter CV-22 training for the U.S. Air Force are the latest in a long line of helicopter simulators and FTDs engineered and manufactured by FlightSafety at its state-of-the-art facility in Broken Arrow, Oklahoma.

FlightSafety has produced a wide range of flight simulators and advanced training devices for helicopters manufactured by Bell, Eurocopter and Sikorsky. They include the Bell 412/212/222, 430, CH-146, OH-58D, TH-67, TH-1H, CH-47F, AH-1Z, UH-1Y, UH-1N, and CV-22/MV-22; Eurocopter EC135; and the Sikorsky UH-60 A/L/M models, HH-60G, S-92, S-70 and S-76 aircraft.

### A Baker's Dozen for Bell

The CV-22 FTDs, being built under contract for Bell Helicopter, will be used to train Air Force Special Command Forces personnel. FlightSafety will have built a total of 13 V-22 full flight simulators and advanced flight training devices for Bell Helicopter once these new devices are completed.

"Bell Helicopter and FlightSafety have a proven history of working together to develop some of the industry's most advanced flight training devices," says John L. Garrison, President and Chief Executive Officer of Bell Helicopter. "Safety is paramount in every helicopter and tilt-rotor operation; these revolutionary simulators will help prepare the men and women of the Air Force to safely and effectively complete their missions."



# P&WC Training Continues to Grow



*"Technicians who maintain and support Pratt & Whitney Canada turboshaft-powered helicopters now have access to FlightSafety's world-class learning facilities and a strong technology-based training curriculum throughout our network of 10 maintenance training centers of excellence." – Mike Lee, FlightSafety's Director, Business Development, Maintenance Training*

## EASA Approves Additional MX Courses

FlightSafety now offers more than 100 practical and/or theoretical EASA-approved maintenance courses, including training for Eurocopter, Sikorsky and many others. Courses approved by the European Aviation Safety Agency are available for Pratt & Whitney Canada turbofan, turboprop and turboshaft engines. FlightSafety offers EASA-approved training at its Paris Le-Bourget and London Farnborough Learning Centers as well as centers in the United States and Canada. The company expects to receive EASA approval for additional maintenance courses by the end of 2011, including a variety of practical and theoretical courses for the Sikorsky S-76.

## Training Expands for P&WC Turboshaft Engines

In close collaboration with Pratt & Whitney Canada, FlightSafety has expanded its maintenance training programs for Pratt & Whitney Canada turboshaft-powered helicopters. The company now offers comprehensive training for six P&WC engine series encompassing 28 engine models for 26 aircraft types built by 12 manufacturers.



**Pratt & Whitney Canada**

A United Technologies Company

**PT6B • PT6C • PT6T • PW206 • PW207 • PW210\***

FlightSafety training programs for P&WC engines meet or exceed international regulatory standards and are approved under FAA FAR 147, EASA, CASA and Transport Canada.

P&WC engine training is or will soon be available in Beijing, China; Curitiba, Brazil; Dallas/Fort Worth, Texas; Johannesburg, South Africa; Melbourne, Australia; Montreal, Canada; Paris-Le Bourget, France; Singapore; Toronto, Canada; West Palm Beach, Florida; and Wichita, Kansas.

\*Training available in late 2011.