

TeamEmbraer

# TRAINING MATTERS



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## Worldwide Training for Embraer Aircraft

In 2010, FlightSafety and Embraer took their long-standing relationship to a higher level with the announcement of a new, comprehensive authorized training provider agreement.

This agreement includes pilot and flight attendant training for two advanced aircraft now in development – the midsize Legacy 450 and Legacy 500 executive jets, both due to enter service within the next two years. The partnership also extends to the super midsize Legacy 600, the large Legacy 650 and the ultra-large Lineage 1000, as well as the E-Jets family of commercial jets.

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## The World's First Legacy 650 Simulator

Operators of the advanced Embraer Legacy 650 executive jet have no shortage of choices when it comes to finding a convenient FlightSafety training location. Because the jet shares a type rating and a wide range of features with

the very popular ERJ 145 Series of regional airliners, Legacy 650 crew members can train on any Level D ERJ 145 simulator in the worldwide FlightSafety Learning Center network.

*(continued on page 5)*

## A New Chapter in a Long Partnership

Welcome to this inaugural edition of TeamEmbraer Training Matters.

Embraer and FlightSafety share a long history of collaboration to ensure the world's best, safety-focused training for all operators of Embraer's rapidly expanding line of commercial, executive and military aircraft.

FlightSafety has been providing training and flight simulators for Embraer aircraft since 1991. We are pleased that in 2010, Embraer selected FlightSafety as the authorized training provider for the Legacy 450, Legacy 500, Legacy 600, Legacy 650 and Lineage 1000 executive jets as well as the E-Jets family of commercial jets. This represents a significant evolution, but not a revolution, in our relationship. It signifies our mutual resolve to continue building on and expanding an already sound and strong partnership that has a single goal: enhancing safety for each and every operator of Embraer aircraft.

One of the reasons our two companies enjoy such strong synergy is our common commitment to innovation and service. We support Embraer with training solutions tailored to the specific needs of operators – including advanced simulation and training devices, scenario-based courseware, highly qualified and experienced instructors and conveniently located training facilities all around the globe. As Embraer grows, we will keep pace.

In these pages, we've outlined just a few of our countless TeamEmbraer training initiatives. We hope you enjoy. And thanks for everything you do to enhance safety.



**Eric P. Hinson**  
Executive  
Vice President  
FlightSafety  
International

## NEW EMBRAER LEARNING CENTER

# A Door Opens in Singapore

By Brian Masson

E-Jet pilots and cabin attendants are now presented with the option to train in the beautiful tropical garden city-state of Singapore – 100 miles from the equator and 10,000 miles from New York, as we like to say.

The new center – located in the Boeing training center – offers pilot training on a state-of-the-art Level D simulator as well as a Virtual Procedures Trainer. Our center provides a one-stop-shop for our Customers. We are fully equipped and qualified to provide initial training (including safety equipment and procedures), jet transition, type ratings and recurrent training.

Flight attendants gain the advantage of training on a full-scale E-Jet fuselage mock-up, the most realistic hands-on training in the industry. Our door trainer incorporates exact aircraft lighting and safety equipment complete with drop-down masks. Doors open in both normal and emergency modes, with power opening and compressed



air sounds. Unique technology has been used to incorporate LED screens in cabin windows, which realistically simulate fire, sea, Air Bridge and more. We also offer a slide trainer, which makes the most realistic simulated egress experience possible.

One of the most interesting aspects of the Singapore training environment is our Customers come from many lands and cultural backgrounds across the Asia Pacific region, including China, Taiwan, Japan, Australia, Malaysia and India. We recognize individual needs and adjust our approach to provide the most successful and enjoyable training environment in the industry.

*Brian Masson is an instructor at FlightSafety's Singapore Learning Center.*



*At top and above: At the Singapore Learning Center, flight crews train for emergency response using full-size E-Jet cabin mock-ups, allowing realistic hands-on exercises.*

# Leveraging Level D for E-Jets Training

By Kevin Wagner

Pilots and technicians participating in professional training for Embraer E-Jets will benefit from a new round of upgrades to classroom courseware. These improvements center on a transition to FlightSafety's exclusive MATRIX integrated training system, which brings the sophistication of Level D simulation software right into the classroom. The MATRIX classroom component, known as DeskTop Simulation (DTS), brings an active simulated cockpit into the class, delivering hands-on aircraft functionality. Your instructor uses a tool called Authored Lessons to provide an interface allowing the active cockpit to change and react as lesson events change. The instructor can, for example, show a full class in real time how specific systems work. Then, with your instructor's guidance, you can work aircraft system controls on your own to solve problems and reinforce the lesson. When the transition is complete, all classroom training will use the MATRIX via DTS. Currently, we are using DTS to train for the FMS and for flight guidance.

*Kevin Wagner is a certified E-Jets instructor at our St. Louis Learning Center. He provides technical guidance for courseware and training device engineering for the FlightSafety E-Jet training program.*



# New Training Reflects Years of Work

By Don Whitefield

When FlightSafety convenes the first training class for a new aircraft, you know that moment has been preceded by months if not years of detailed preparation. In fact, the many years of our close, collaborative relationship with Embraer play a key role in ensuring each new course delivers accurate, high-fidelity, safety enhancing training. We are currently developing courseware, challenging training scenarios and accurate, responsive training hardware for the new Legacy 450 mid-light and Legacy 500 midsize jets. As FlightSafety's Legacy 450/500 specialist, I've been consulting with our courseware experts and simulation engineers to create a training program as innovative and effective as these remarkable new aircraft. When training commences, pilots and technicians can rest assured the training will prepare them to seamlessly incorporate these new aircraft into their fleet.

*Don Whitefield is an Embraer instructor at our St. Louis Learning Center. He provides technical guidance for courseware and training device engineering for the FlightSafety Legacy 450/500 training program.*

# Training Is Key To Embraer's Customer Focus

At Embraer, we truly believe that the best pilot is the one with the best training background. That is why we have established our training relationship with FlightSafety International. We rely on the professionals at FlightSafety for flight training. For Embraer, global reach, high-quality services and outstanding customer care are mandatory. We have customers all over the world and definitely with different expectations and different needs.

We must be aware of what our customers want, what types of support are expected, what is the key for their success. With FlightSafety on board we can surely deliver to our customers the cutting-edge technology embedded in an efficient training program supported by Embraer's training philosophy, where safety always comes first.

## Flexibility, Convenient Locations

We can offer flexibility to our customers with the necessary training centers strategically located in North America, Europe and Asia Pacific. They have been supporting us in different programs since we started our relationship in 1995 as the exclusive training provider for our ERJ 145 family of aircraft. Based on what we believe, we can state that what we have now is not just a business relationship, but the necessary bridge to fulfill all possible training gaps.

FlightSafety has been delivering to our customers what is really necessary to operate our aircraft around the world in an efficient and safe mode.

It's a partnership that works.



**Márcio Fernandes**  
Director, Embraer  
Customer Training

# FlightSafety, Embraer – A New Era

In 2010, when Embraer named FlightSafety its preferred training provider, this signified a new era of collaboration between our two international aerospace organizations.

But it was hardly the beginning of our relationship. In fact, FlightSafety and Embraer have been cooperating for more than 20 years to deliver the highest quality professional training.

Our relationship began when we put our first Embraer EMB 120 Brasilia full flight simulator into service, just a few years after this twin turboprop commuter airliner entered commercial service.

In 1995, Embraer named FlightSafety as a factory-authorized training provider, and we've been steadily expanding our Embraer training capabilities ever since.

## A Steadily Growing Relationship

In 1997, FlightSafety began training with our first ERJ 145 simulator. Additional firsts include an Embraer 170 simulator in 2005 and an Embraer 190 simulator in 2007.

During this time we increased the number of Learning Centers offering Embraer instruction, which broadened our training across the board and greatly expanded our maintenance technician courses.

As Embraer continues to expand its line of innovative, groundbreaking aircraft, FlightSafety will keep pace with equally innovative, advanced training and attentive Customer service.



**Mike King**  
*FlightSafety*  
*Director of*  
*Business*  
*Development*

# Worldwide Training for Embraer

*(continued from page 1)*

## A Long, Close Relationship

Embraer – Empresa Brasileira de Aeronáutica – opened its doors in 1969 and traces its roots back to World War II. The continuing development of new products allows Embraer to reach new technological and industrial levels. All the more remarkable considering the company's significant market share and growing portfolio of products. FlightSafety has been right in step with Embraer, offering professional training to its ever-growing list of operators since Embraer began expanding in the late 1980s.

Today, FlightSafety and Embraer collaborate to offer factory-authorized training around the globe for virtually the full line of Embraer commercial and executive aircraft.

## Two World Leaders, Working Together

"When it comes to training, FlightSafety is a world leader," says Simon Newitt, Embraer Vice President, Airline Market, Europe. "We are very excited about this contract ... to offer customers an exceptional training product and service."

Bruce Whitman, FlightSafety President & CEO, agreed. "We are honored to provide authorized training for Embraer operators. FlightSafety and Embraer share a common commitment to enhance aviation safety and to provide our mutual customers with the highest quality products and service."

FlightSafety provides training at locations around the world for most Embraer commercial and executive aircraft models. The company has additional Embraer simulators in design and production and plans to continue expanding training to ensure convenient options for all Embraer operators.



**Legacy 450/500 Training:** The first Embraer Legacy 500 full flight simulator – currently being engineered and manufactured by FlightSafety in close collaboration with Embraer – is scheduled to be installed at the St. Louis Learning Center (shown above), prior to the first delivery of these extraordinary new aircraft. The simulator will be upgraded to serve as a 450/500 convertible training device in advance of deliveries for the Legacy 450.

## Legacy 650 Simulator *(continued from page 1)*

Soon, however, Legacy 650 operators will be able to train in St. Louis on a dedicated simulator, which will reflect the unique Legacy 650 configuration.

FlightSafety, working closely as always with Embraer, will engineer and build a full motion simulator. The collaboration includes flight testing to collect data, which will be used to ensure the simulator replicates the Legacy 650 with a high degree of fidelity.



### Training to Begin in 2012

The simulator is scheduled to be in place and qualified to Level D for training in 2012. The simulator also will accommodate training for the Legacy 600, an aircraft that has proven its worth since 2002 and paved the way for the new Legacy 650. Legacy 600 operators training on the simulator will receive differences training to cover the variations between the two models.

This simulator will be the first one in the world dedicated to supporting the Legacy 650/600 series of aircraft.

The Legacy 650 shares many characteristics with the Legacy 600 and, in addition, features a new Honeywell Primus Elite avionics suite, updated engines, a more efficient wing and an extended range.

### EMB 170/190 Simulator Profiles

Location	A/C Model	Level	Approvals
Amsterdam	170	D	JAA
Amsterdam	170/190	D	JAA
Paris	170	D	JAA/FAA
Singapore	170/190	D	CAAC/JCAB
St. Louis	170	D	FAA
St. Louis	170	D	FAA
St. Louis	170/190	D	FAA/ANAC

### ERJ 145 Simulator Profiles

Location	A/C Model	Level	Approvals
Curitiba	145	D	FAA
Dallas	145	D	FAA
Houston	145	D	FAA
Houston	145	D	FAA/JAA
Houston	145	D	FAA/JAA
Paris	145	D	FAA/JAA/CAAC
Paris	145	D	FAA/JAA/CAAC
St. Louis	145	D	FAA
St. Louis	145	D	FAA
St. Louis	145	D	FAA

### EMB 120 Simulator Profiles

Location	A/C Model	Level	Approvals
Atlanta	120	C	FAA
Long Beach	120	C	FAA
Paris	120	C	JAA

## Embraer – A Legacy of Innovation



- 1972** First flight, EMB 110/Bandeirante (Pioneer)
- 1979** Opens Florida marketing and sales office
- 1985** EMB 120 Brasilia enters service

- 1996** EMB 145 series enters service
- 2002** Embraer 170/190 series enters service
- 2002** Legacy 600 executive jet enters service

- 2011** Legacy 650 earns FAA certification
- 2013** Legacy 500 projected to enter service
- 2013** Legacy 450 projected to enter service

## BRIEFS



*David Glass*

### New Manager at Houston Learning Center

David Glass offers more than two decades of service as a pilot and officer in the Marine Corps and Reserve, time in the cockpit of commercial jets, and a broad range of experience within FlightSafety.

He served the Marines as a joint staff officer, forward air controller, aircraft safety officer and squadron standardization pilot, retiring with the rank of Lieutenant Colonel. Glass flew for Trans World Airlines and American Airlines and was an FAA check airman, earning type ratings in the McDonnell Douglas DC-9, Boeing 757/767 and Embraer 170/190 aircraft. At FlightSafety, he has been an instructor, Training Center Examiner and Director of Standards in St. Louis, Assistant Manager at Houston and Center Manager in Toledo before moving back to Houston as Center Manager.



*Angie Gremard*

### Angela Gremard Takes the Reins in St. Louis

Angie Gremard spends her days ensuring that FlightSafety Customers receive the highest quality training and best possible service. She's been doing that for more than 20 years now. Gremard began her career with FlightSafety in 1990 as a Customer

Support Representative in St. Louis, moving into marketing in 1996 as a Product Marketing Representative and then as Product Marketing Manager. She was promoted to Assistant Manager for St. Louis in 1999 and in 2010 moved to Center Manager for four Learning Centers, including Cincinnati, Memphis and Salt Lake City. Gremard holds a Bachelor of Science degree in public administration from the University of Missouri.



*Todd Bitgood*

### Todd Bitgood Named St. Louis Assistant Manager

Rochester, New York, native Todd Bitgood graduated from Penn State and then went to work building his aviation portfolio. He earned certified pilot instructor and CFII, multi-engine instrument and ATP ratings, then worked as a standards pilot at

Lufthansa's ab initio pilot school in Phoenix, Arizona. Bitgood joined FlightSafety in 2001 as a Learjet 31/55 instructor and check airman. In 2006, he was named the Director of Training at the Tucson Learning Center. He became Assistant Manager in St. Louis in early 2011.



*Patrick Dulac*

### Patrick Dulac Brings Wealth of Experience to Paris Center

Patrick Dulac leads the highly qualified, Customer-focused team at the Paris-Le Bourget Training Center, helping maintain and advance the center's commitment to excellence. An 18-year veteran with the French Air Force, Dulac

served as a flight instructor and was a squadron leader at the Central Flying School in Cognac, attaining the rank of captain. He then flew as a captain for Gabon's Presidential Air Fleet before joining FlightSafety in 1998 as an instructor for the Embraer 120 and ERJ 145 training programs. Dulac holds a multi-engine ATP license and is qualified as a TRE by the Civil Aviation Authority in the U.K. and as a TCE by the FAA. He holds a bachelor's degree in science from the University of Paris.



### Embraer 170/190 Simulator Qualified in Jordan

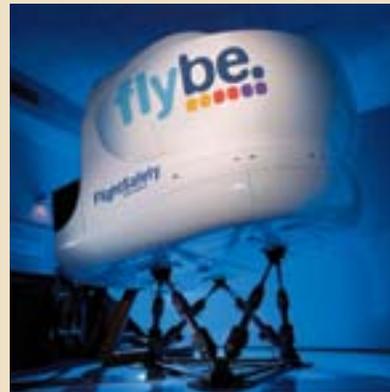
At a launch ceremony in January 2011, Jordan Airline Training and Simulation (JATS) unveiled its new state-of-the-art Embraer 170/190 full flight simulator, engineered and manufactured by FlightSafety. The simulator supports training for aviation professionals from regional airlines and other operators. JATS, which began as the training division of Royal Jordanian Airlines, now is an independent training provider. The new simulator was designed and manufactured based on the most current international standards and is approved by JAR-STD as Level D to operate all normal and abnormal training procedures. JATS' Acting General Manager, Nasri Nowar, said the new Embraer simulator serves to reinforce and strengthen JATS' mission to provide the best, cutting-edge training.

## Azul Brazilian Airlines Orders 2nd Embraer 190 Simulator

Azul Brazilian Airlines, one of the world's fastest-growing airlines, has purchased a second Embraer 190 aircraft simulator from FlightSafety. The two companies also agreed to explore the joint development of a training center in Brazil equipped with advanced FlightSafety flight-training devices. The new simulator will be installed at Azul's training center in São Paulo. It will be equipped with electric motion and control loading system and VITAL X visuals. It is expected to receive Level D qualification from ANAC, the National Civil Aviation Agency for Argentina and Brazil.

## Austral Airlines Orders Embraer 190 Simulator

Austral Airlines has purchased an Embraer 190 aircraft simulator from FlightSafety. The new simulator will be installed at Austral's new training center in Buenos Aires. It will be equipped with electric motion and control loading system and VITAL X visuals. It is expected to receive Level D qualification from ANAC, the National Civil Aviation Agency for Argentina and Brazil.



## Flybe Acquires FlightSafety-Built E-Jet Simulator

Flybe, Europe's largest regional airline and the United Kingdom's No. 1 domestic carrier, has ordered an Embraer E-Jet 170/190 simulator designed and manufactured by

FlightSafety. The simulator will be installed at the new Flybe Training Academy at Exeter International Airport in the U.K. FlightSafety will provide Flybe with E-Jet 170/190 training facilities in Amsterdam and the Paris-Le Bourget Learning Center until the new simulator is installed in early 2012. The simulator will be equipped with FlightSafety's industry-leading VITAL X Visual System and electric motion and control loading technology.

# The Pinnacle of Their Profession: Embraer Master Technicians

Nine maintenance technicians have successfully met the challenge of earning Master Technician certification on Embraer



aircraft. This certification signifies these technicians have reached the highest levels of their profession. From top left, these dedicated professionals are: Keith Hellem, ConocoPhillips lead technician, on the Legacy 600; Laddie Gaylord, ConocoPhillips technician, Legacy 600; Noe Garcia, ConocoPhillips technician, Legacy 600; Phillip Kozlowski, Johnson Controls technician, Legacy 600; Robert "Scott" Gross, Johnson Controls technician, Legacy 600; Mark Kennedy, Johnson Controls technician, Legacy 600; Bob Puddu, FlightSafety instructor, ERJ 145; Marty Payne, FlightSafety instructor, ERJ 145; Dave Lester, FlightSafety instructor, ERJ 145.



*Keith Hellem*



*Laddie Gaylord*



*Noe Garcia*



*Phillip Kozlowski*



*Robert "Scott" Gross*



*Mark Kennedy*



*Bob Puddu*



*Marty Payne*



*Dave Lester*

# Leading the Way on Cooperation Between Embraer/FlightSafety

When it comes to sustaining and broadening the already solid relationship between FlightSafety and Embraer, Mike Young takes the point. Young spent 22 years with Piedmont Airlines, including 10 years in the training department – the last five years exclusively in training. That experience clearly was excellent training for his move to FlightSafety in 2007, starting as an EMB 170 instructor. He moved quickly to Program Manager for the Q400 and in 2009 was named to his current role as Director of Programs.

Young was a pivotal member of a team led by Mike King, which developed and successfully negotiated the groundbreaking training services agreement signed in 2010 by Embraer and FlightSafety.

Young now serves as the primary contact for communication between these two international aviation organizations on issues including training, training development, scheduling, simulators, quality assurance, Customer service and more. In the spring of 2011, Young was in Singapore overseeing setup and regulatory certification for this new FlightSafety training location.



**Mike Young**  
*Director of Programs/Embraer*

## On the Ground in Brazil

Mark Coleman holds a key responsibility in maintaining and advancing the FlightSafety/Embraer training relationship. From his base at Embraer headquarters in São Jose dos Campos, São Paulo, Brazil, Coleman acts as one of the chief liaisons between the two companies – helping to ensure training programs meet Embraer’s ongoing needs while also measuring up to FlightSafety’s standards.

His background uniquely qualifies him to take on this challenge. In the U.S. Air Force, he served as chief of curriculum development for the legendary Lockheed U-2 program. Later he was assistant site manager for A/OA-10 Thunderbolt II training at Davis-Monthan Air Force Base. Coleman joined FlightSafety’s Houston Learning Center in 2000 to manage training program development for Embraer commercial and executive aircraft. He then served for several years as Communications Manager for the Courseware Support Team before moving to his current position of Assistant Director of Programs in 2010.

Coleman is onsite in Brazil to gather technical information about both emerging and current aircraft to ensure courseware and training devices are always up to date.

In addition, he says, “I am a voice for FlightSafety Customers when they have feedback for Embraer regarding issues related to training, publications, etc., and I am a constant presence to feed real-time information from Embraer to FlightSafety. All of my responsibilities combine to ensure that FlightSafety training represents the best of professionalism, experience and expertise from both worlds: FlightSafety and Embraer.”



**Mark Coleman**  
*Assistant Director of Programs/Embraer*