inside

Renewed Vision Under Elbit Systems, Ltd
MEMS Technology Sets the Standard
Simultaneous InSight™ Installs
A Seasoned Support Team
It’s not just dapper, it’s packed with NextGen charisma. The InSight Display System brings you ADS-B, RNP, LPV, FANS, CPDLC and Data Comm – all the latest in flight deck technology to get you where you need to go.

Positively Shocking

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The Universal Flyer is a quarterly print publication featuring product and program announcements, company milestones, spotlights, and more.

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About

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By now, you may have heard that UA’s acquisition by Elbit Systems, Ltd. is complete. At the time of this writing, we have already begun introductory meetings amongst our teams and strategizing ways of enhancing Universal’s support of its customer base. We are excited about the future of UA under the Elbit flagship.

As you may know, UA has been a family-owned business since its incorporation in 1981. It was with careful consideration that a new direction for the company was decided—a direction that would provide more opportunities for the future than we would be able to accomplish as a privately-held business. We are confident that UA will remain true to the core values instilled over the past 37 years.

Under the strategic leadership of Elbit Systems, we will be able to expand and enhance our business by leveraging the additional resources of a well-capitalized and committed partner to serve you better. Since its entry in the commercial aviation market in the early 2000’s, Elbit has introduced several innovative avionics systems, including the first Enhanced Vision System for business jets. Today, Elbit is a highly respected avionics supplier in our industry, working closely with aircraft OEMs worldwide to deliver exciting options for new aircraft.

The new UA will remain under the same name and leadership you know and trust. We will continue to operate from our current offices and our contact information will remain unchanged. If you have any questions about this exciting news and what it will mean for you, please feel free to reach out to myself or your local sales representative at any time.

Kind regards,

Paul DeHerrera
UA Chief Executive Officer

Our vision is to be the premier cockpit avionics supplier for the commercial aviation market, providing a fully-integrated ‘heads-up’ and ‘heads-down’ experience for pilots by combining Elbit’s commercial HUD (Head-Up Display) technology with UA’s FMS and display systems. – Paul DeHerrera, UA CEO

Q&A

Who is Elbit Systems Ltd.?
Elbit Systems Ltd. is an international high technology company. It develops and supplies a broad portfolio of airborne, land and naval systems and products for defense, homeland security and commercial applications. They install systems and products on new platforms and retrofit aircraft.

What segment of Elbit Systems’ business does UA fall under?
UA is a wholly-owned subsidiary integrated in the Aerospace Division of Elbit Systems Ltd’s Commercial Aviation operations, based out of Haifa, Israel. Those in the U.S. may be familiar with a company named Elbit Systems of America, which like UA, is a wholly owned subsidiary of Elbit Systems Ltd. Elbit Systems of America specializes in custom military solutions whereas UA is in a different market, leading the commercial market.

UA will continue to leverage its existing product portfolio as a Commercial off the Shelf (COTS) option for military applications and support Prime Government Contractors in their work with the government.

How will UA’s focus change?
UA will continue with the vision and goal to provide complete flight deck solutions for forward-fit and retrofit aircraft, including fixed-wing and helicopters.

What does the future look like for UA?
UA’s acquisition is a new direction for the company. With great teamwork between Elbit Systems Ltd. and UA and product offerings that align, the companies will be better together. You can expect the same great service, with new and innovative technologies.
MEMS. No, not memes – those humorous images with catchphrases that spread through the internet like wildfire. We’re talking MEMS, or Micro-Electromechanical Systems, technology that combines the computational ability of microelectronics with the acuity and control of micro-sensors and micro-accelerometers. Doesn’t sound as fun as memes? Well, if you can get past the long name and overly-techny definition, MEMS is actually quite interesting.

MEMS are made up of components between 1-100 micrometers in size (0.001-0.1mm), with MEMS devices typically ranging in size from 20 micrometers to a few millimeters.

MEMS technology is prevalent in a number of devices from car airbags to mobile phones to remote-controlled drones and even UA’s AHS-525 Attitude Heading Reference System (AHRS).

The AHS-525 contains one “solid-state” main MEMS-based component, using digital electronic subcomponents. In comparison to older gyroscopes, the MEMS-based AHS-525 offers significant advantages like simplified installations by using the existing wiring in the aircraft, resulting in minimal installation time and cost savings. The unit is also lightweight, 7.5 lbs with the mounting plate, which can be a contributing factor to increasing flight range. We didn’t invent MEMS, but the emergence of the technology has made it possible for UA engineers to design an AHRS unit much more reliable and cost-effective for aircraft operators.

The AHS-525 is designed to replace existing older systems by simply reusing the existing wiring. This significantly decreases installation time.” — Robert Randall, UA Sr. Sales Manager, U.S.

**AHS-525 AHRS**

- Measures angular aircraft motion: pitch, roll and heading
- Measures linear motion: longitudinal, lateral and vertical axes
- Replaces multiple Line Replaceable Units (LRU)
- Fixed mounting plate with no need for repeated realignment and calibration
- Analog, digital and discreet inputs and outputs
- Applicable to Part 23, 25, 27 and 29 aircraft
- Installed as a single backup unit or dual system for PFD

**STCs in development**

- McDonnell Douglas MD-80
- Dassault Falcon® 20
- Learjet 35

UA is actively looking for more participants for STC development with first-of-type incentive programs available.
What goes into a “first of type” flight deck retrofit?

A “first of type” flight deck retrofit is the process used when certifying a product in an aircraft type or model for the first time. Integrating a new avionics suite with existing components can be a time-intensive and difficult process. Still, we believe it’s a worthy endeavor to equip older aircraft with the latest avionics capabilities. We ensure Sales and Technical Support teams are available remotely and on-site to stand-by our installers through the entire process.

The Process:

1. To ensure integration scope of work, an extensive aircraft survey is performed to identify interfaces required for avionics.
2. Our Technical Sales team reviews the survey and provides feedback/indicates if proposed equipment can interface to new display systems and other LRUs. We provide recommendations for alternative equipment when listed units are not compatible, to ensure the flight deck functions as outlined in the project summary.
3. Once the aircraft survey review is complete, hand off to the UA Customer Support team occurs.
4. Our Customer Support team ensures timely responses to questions and review/mark-up drawings while assisting the Authorized Dealer/Integrator.
5. While the Authorized Dealer/Integrator is responsible for all aspects of the installation including installation approval by the certification authority, UA Customer Support team continues to assist the installer throughout these efforts.

Universal Flyer

InSight™ Flight Deck System

 installs coast to coast

**East Coast**

| UA Authorized Dealer: Millennium Technologies |
| Installation Location: Opa-locka, Florida, USA |
| Operator Base: Central America |
| Status: Delivered to operator in March 2018 and is in operation |

**West Coast**

| UA Authorized Dealer: SoCal Jets |
| Installation Location: Van Nuys, California, USA |
| Operator Base: Spokane, Washington, USA |
| Status: Delivered to operator in May 2018 and is in operation |

Configure with confidence

UA’s recently released External Configuration Editor (ECE) aids Authorized Dealers/Integrators in the pre-design and system configuration process for the InSight Display System, bringing avionics installation into the modern era. The innovative cloud-based application saves installers tremendous time by reducing their workload. Built-in collaboration tools also help streamline workflow among installers.

ECE

External Configuration Editor

installs coast to coast

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UA’s Customer Support team consists of 5 hardworking individuals who work in sync with the Repair Station and Product Support. The team is unique – not just a number of people, but more like a family – a family that puts in over 100% to support UA in making its customers happy.

Why? It makes them happy.

The Customer Support team works side-by-side (literally) with UA’s Repair Station at the company’s Headquarters facility located in Tucson, Arizona, USA. Syncing workflows between the teams allows for quick turns, reducing aircraft downtime. In fact, the teams do everything possible to make sure a loaner unit ships to the customer the same day or counter-to-counter. Additionally, repair technicians aim for a 7-day turnaround time, which isn’t always easy due to part obsolescence, troubleshooting and a host of other factors. But that’s a commitment we make - to service our units for the lifetime of the product (when we can), even avionics dating as far back as the 1980’s.

To convey excellent customer support, the team is always thinking of speed, efficiency and keeping a positive attitude. They start their mornings early to support customers outside of the USA. and stay conveniently reachable throughout the day. An AOG – 24 Hour Parts Hotline is watched in shifts to guarantee no one is missed, and there’s no runaround – you get a live person.

Something the entire team is extremely proud of! Consistently rating at the top of customer support surveys like those published in ProPilot and AIN magazines. We debuted at #1 in ProPilot’s 1993 issue and held steady in the top 2 ever since.

The way Customer Support’s structure is set up allows the team to make judgement calls quickly without having to go through layers of management for permission. This allows for swift attention to the customer. Ultimately, every decision and process in place ensures efficiency in getting units out the door.

Don’t let their focus on speed fool you though. Over the years, they’ve established routine processes that work best for them and the customer. While it’s important to be efficient, it’s just as important to be accurate. The team prides itself on handling stressful situations and finding the right solution to every issue that comes their way.

Customers may be wondering if our support will be affected, but the same team is still here. We’ve all been here for the last 20 years and we look forward to continuing to care for our operators.

– Robert Nierenhausen, UA Manager, Customer Service & Warranty

FlightAssure™ Extended Warranty Program

Gain Assurance and Peace of Mind with Extended Coverage

• Fixed price with annual contract
• Full coverage on exchange & repair services
• Available loaner units included
• Component repairs including No Fault Found (NFF) removals
• Fully transferable contract
• Free outbound second day air freight
• Removal and Refit coverage (R&R)
• 24/7 AOG emergency service

Learn more at uasc.com/warranty.