Winner 2016

AVIATIONWEEK



Digital Extras Access exclusive online features from articles accompanied by this icon.

- 7 Feedback
- 8 Who's Where
- 9-10 First Take
 - **11** Up Front
 - 12 Going Concerns
 - 13 Inside Business Aviation
 - **14** Airline Intel
 - **16** Leading Edge
 - 18 In Orbit
 - 19 Washington Outlook
 - **63** Classified
 - 64 Contact Us
 - **65** Aerospace Calendar

AERONAUTICAL ENGINEERING

20 NASA vows to offset budget threat to plans as subsonic X-plane concepts undergo midterm review

BUSINESS

- **24** Safran's takeover of Zodiac will create the third-largest aerospace supplier, behind UTC and GE
- 29 Leonardo focuses on unmanned helicopters and advanced radars in UK as part of global growth
- **30** Hefty fines paid by Rolls-Royce in corruption probe may herald more aerospace fraud investigations
- **40** Turkish Aerospace Industries CEO plans rapid growth with fighter program and overseas expansion



COMMERCIAL AVIATION

25 Iran Air kicks off a cycle of aircraft replacement and growth, starting with its first new Airbus A321



38 Airbus keeps to its delivery target despite weaker orders, trusting big backlog, slower past production

40 Boeing defines modest stretch for 737-10, expecting faster and cheaper developmentt

MANUFACTURING

- 26 Airbus installs an additivemanufacturing machine to 3-D-print airframe structures
- **35** Automation and digital transformation improve work conditions and efficiency at Safran factories

SPACE

- 27 SpaceX returns to flight, but it has much work ahead to be certified to transport NASA astronauts
- 42 Lockheed Martin and Space Systems/Loral building custom spacecraft for discovery missions
- **44 DARPA standards** effort is the first step toward commercial on-orbit servicing of government satellites

ROTORCRAFT

28 New attack helicopter from Leonardo will recycle commercial rotorcraft technology to save costs



With a greater focus on value for money, the customers for military trainers want aircraft that will allow them to squeeze as much learning as possible into every flying hour (page 48). On the cover, two PC-21s fly over the Swiss Alps. Pilatus photo by Jerome Zbinden. The turboprop has captured a significant share of the trainer market in Europe and the Middle East. Also in this issue: what's next for SpaceX (page 27), face to face with Embraer's new CEO (page 46), counterstealth radars (page 54) and Iran Air's plans (page 25). Aviation Week publishes a digital edition every week. Read it at AviationWeek.com/awst and on our app.





DEFENSE

- 31 South Korea accelerates its anti-ballistic missile system development, to deploy next year
- **34** The Pentagon postponement of the A-10's retirement creates challenges for maintenance crews

TECHNOLOGY

36 WheelTug says time savings from faster gate maneuvers sustain demand for electric taxiing

FACE TO FACE

46 Embraer CEO on E2 aircraft development, the defense business and the challenging bizav market

MILITARY TRAINERS

- 48 Combat pilot training is changing almost as quickly as the fighters the pilots fly are evolving
- **50** Two dozen countries around the world are building or buying trainers—we present a guide
- **52 Turkey develops** Hurkus turboprop to be an advanced trainer and counterinsurgency aircraft
- 53 Raytheon and Lockheed Martin plan to make versions of foreign trainers in the U.S.

STATE OF STEALTH

54 Counterstealth systems at Airshow China indicate Beijing's efforts to



overcome U.S. stealth advantage

AIR TRAFFIC MANAGEMENT

58 New ATM tools in development offer better arrival time estimates and fewer delays, Thales says

SAFETY

59 Aviation Week flies the Airbus Sferion augmented reality system in University of Iowa Mil Mi-2



61 Will airlines buy enhanced flight vision systems to enable pilots to fly as if always in clear weather?

VIEWPOINT

66 Renewed nuclear arms race could force U.S. adversaries to work toward peaceful relations

