AVIATIONWEEK



Digital Extras Tap this icon in articles in the digital edition of AW&ST for exclusive features.

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

COMMERCIAL AVIATION

- **20 Airbus cuts A380** production to buy time to find new customers as market forces indicate its demise
- **22 Famborough Airshow** gives a view into Boeing's 777X, 737 MAX and middle-of-market aircraft plans
- **22 Materials tests** for GE9X engine blaze a trail for Boeing 787 "next-gen" GEnx-lb powerplant
- **24 UAC and Comac** will establish joint venture to develop their proposed long-range widebody airliner
- **25 Qatar Airways moves** toward "network of partnerships" with plan to buy stake in LATAM Group



- **38 Boeing 777X** cockpit will be first commercial transport to incorporate touch screens
- **39 Terms of global** emissions deal are far from set as ICAO assembly to reach an agreement nears



BUSINESS

37 New CEOs are tasked with helping Tier 1 suppliers adapt to OEMs' demands and cost pressures

DEFENSE

- **26 Despite Brexit vote,** U.K. signs deals at Farnborough Airshow for \$6.6 billion in new defense equipment
- **29 F-35 deploys** to the U.K. successfully at last and now faces logistics and information-sharing challenges
- **32 China's Y-20** enters service after nine-year development, laying foundation for still bigger airlifters
- **46 Canada reengages** fighter jet makers, foreign governments as it weighs how to replace its CF-18s
- **47 Breaking up** the U.S. military satellite payload set may be way to boost interoperability with allies

PROPULSION

34 GE details test plan with U.S. Air Force aimed at three-stream, adaptive fighter jet engines

MANUFACTURING

36 Alcoa and Hexcel unveil major 3-D-printing investments to accelerate product development

TECHNOLOGY

41 Design house ESAero uses airliner concept to explore challenges of distributed electric propulsion



Out of the Storm?

ON THE COVER

The F-35 Joint Strike Fighter has begun appearing at international air shows. Here, the STOVL variant of the Lightning II hovers above the airfield at Farnborough, England, in Mark Wagner's photo. Next up for the mammoth international fighter program are the complexities of logistics, maintenance and data sharing among allies (see page 29). Also in this issue: U.K. defense after the Brexit vote (page 26), biometric screening of airline passengers (page 55) and the future of Airbus's A380 page 20). Aviation Week publishes a digital edition every week.



42 Embraer 170 prototype joins EcoDemonstrator tests focused on turbulence detection and noise

FACE TO FACE

44 BAE Systems CEO discusses Brexit vote impact, armed UAV work and plans for Turkey, other markets

SPACE PROPULSION

- **48 Mars Orbiter** could be solar-electric propulsion testbed as backing wanes for asteroid mission demo
- **50** Aerojet Rocketdyne weighs "new space" manufacturing and design to cut costs, open new markets
- **51 Virgin Galactic** LauncherOne project kick-starts vertically integrated rocket-making facilities

SPACE

53 Curiosity rover will image and perhaps sample Gale Crater sites in search of liquid water on Mars

NEW AIRPORT TECHNOLOGIES

55 SITA, Rockwell Collins are working on biometric-based next-gen approaches for air travel

58 Eurocontrol's portable gaming simulator helps airports prepare in a virtual world for real crises

GENERAL AVIATION

59 Persistently high personal aviation fatality rate spurs government, industry to address causes



61 Europeans make progress on electric aircraft prototypes, but regulations present hurdles

VIEWPOINT

66 Space vehicles must be integrated into the national airspace safely, cooperatively and economically



At the Farnborough Airshow, Aviation Week Editor-in-Chief Joe Anselmo (left) and Managing Editor-Commercial, Jens Flottau tour Embraer's first prototype E190-E2 passenger jet. The aircraft was flown to Farnborough from Brazil seven weeks after its first flight on May 23.