

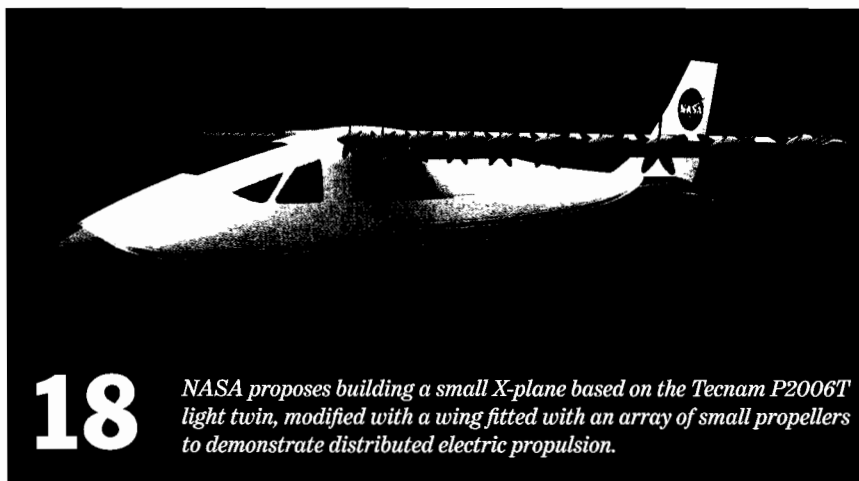
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AVIATION WEEK
& SPACE TECHNOLOGY

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- 9 Who's Where
- 10-11 The World
- 12 Up Front
- 13 Leading Edge
- 14 Reality Check
- 15 Airline Intel
- 16 In Orbit
- 17 Washington Outlook
- 47 Classified
- 48 Contact Us
- 49 Aerospace Calendar



18 *NASA proposes building a small X-plane based on the Tecnam P2006T light twin, modified with a wing fitted with an array of small propellers to demonstrate distributed electric propulsion.*

THE WORLD

- 10 Orbital Carbon** Observatory begins two-year mission to assess CO₂ levels in the Earth's atmosphere
- 10 FAA's Margaret Gilligan** wins L. Welch Pogue Award for her effect on aviation safety
- 11 First production** HondaJet takes to the skies, bringing the aircraft closer to certification in early 2015
- 11 Rollin King dies**, was a founder, president and onetime largest shareholder of Southwest Airlines

RESEARCH & DEVELOPMENT

- 18 NASA tests aim** to see whether hybrid and distributed electric propulsion could be next for civil aviation
- 20 Propulsion revolution** starts small, with prototype hybrid-electric vertical-takeoff unmanned system

AIR TRANSPORT

- 21 Boeing hopes** further improvements will make 747-8 more attractive for passenger airlines
- 23 Sukhoi increasing** Superjet 100 production while striving to improve its only air transport product
- 24 Chinese move** into budget aviation is gathering strength, with majors converting subsidiaries to LCCs

DEFENSE

- 26 U.K. Tornados** being fitted with airborne collision-warning systems but five years before they leave service
- 27 Dutch halting** deliveries of NH90 naval helos until the manufacturer can mitigate corrosion issues.

FACE TO FACE

- 28 Lockheed Martin** CEO addresses issues the company will face after the F-35 is in service

ROTORCRAFT

- 30 Combat Rescue** Helicopter to benefit from maturity, scale of Sikorsky's UH-60M program

EUROPEAN FIGHTERS

- 32 JAS 39E emerges** as aircraft sharing little with the earlier version, but costing less to acquire and operate
- 34 Crown jewel** of Europe's fighter weapon industry is MBDA's Meteor ramjet-powered air-to-air missile
- 35 European governments** and industry investing in modernizing electronics to keep programs competitive
- 37 Addition of two** capabilities on latest Typhoons should help them take on more of the ground-attack mission



ON THE COVERS

This week, Aviation Week publishes two editions. The far left cover photo from Dassault features one of the company's Rafale fighters in a heavyweight configuration that was tested this year. It carries six air-to-air missiles, six Sagem A2SM guided bombs and three 2,000-liter fuel tanks. A special report on European fighter upgrades begins on page 32. Elsewhere in both editions are an interview with Lockheed Martin CEO Marillyn Hewson (page 28) and reports on electric aviation (page 18) and the next steps for the Boeing 747-8 (page 21). Our MRO Edition includes a report on parts-buying essentials—from demand forecasting to parts logistics and distribution. Its cover photo from A JW Aviation shows the firm's state-of-the-art warehouse and logistics complex near London Gatwick Airport.

39 F-35 debut in the U.K. could obscure a pact between London and Paris to begin work on a potential successor

EASTERN EUROPE MILITARY

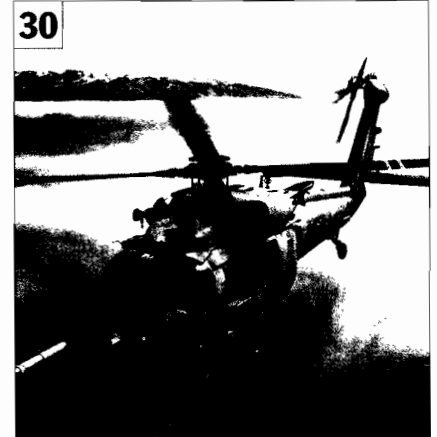
40 National expansionism and modern technology causing countries to reexamine defense planning



46 Ukraine/Crimea crisis sharpens Eastern Europe's appetite for ground-based missile defense

VIEWPOINT

50 3-D printing has added to manufacturing evolution, but its value is constrained by its capabilities



41 Shift to counterinsurgency programs leads to major capability gaps in more traditional missions

43 Centerpiece of Poland's defense modernization is the plan to buy air defense systems

44 Countries abutting Ukraine taking varying measures in response to Russia's annexation of Crimea

45 New ship's 'deckhouse' has taken shape, containing radar system software for ballistic missile defense

On the Web *

A round-up of what you're reading on AviationWeek.com

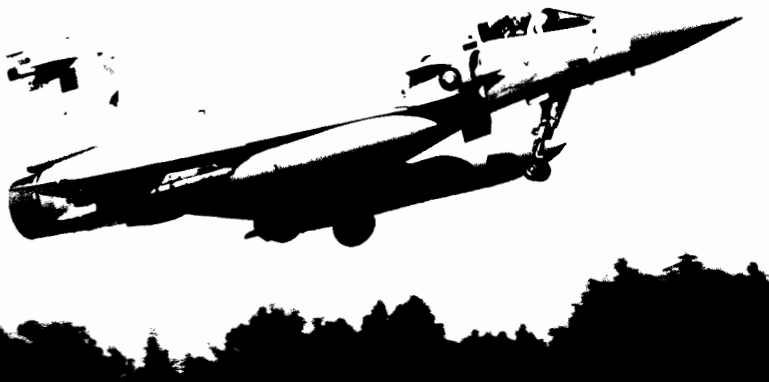
Aviation Week editors will be on the ground at the Farnborough air show to bring you highlights and insight—and news, photos, videos and blogs. Keep up with the latest and download our free app at AviationWeek.com/Farnborough

F-35 UPDATE

Our editors discuss some of the current issues surrounding the Joint Strike Fighter, including its role in international fleets, in the Check 6 podcast this week. Check 6 is also available for subscription on iTunes. AviationWeek.com/podcast

READER COMMENT

Speaking of the JSF, the question of whether the F-35B, the Stovl variant the U.K. is buying, will be ready to go England in time for the Farnborough air show provoked a lively online discussion. RSM wrote: "I worked on the B-58 from 1953 until 1955. It began flying about 1956. By the time it had flown about as much as the F-35B has flown, about 10 aircraft had become smoking ruins killing most of the aircrews. Be glad that with current simulation and thorough and cautious testing there has been no loss of life or airframes of these marvelous aircraft." ow.ly/yHR8J



TONY OSBORNE/AMAST

Qatar is planning to acquire more fighters, and that could affect the fate of its Mirage 2000s. Tony Osborne got a rare look at the jets when he attended Anatolian Eagle out of Konya Airbase in Turkey. ow.ly/HQG8 AviationWeek.com/Ares

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