AVIATION WEEK

& SPACE TECHNOLOGY





COVER STORIES

50 Boeing photographers had a chance to shoot two Royal Australian Air Force Wedgetails over Washington state before the new Airborne Early Warning and Control

aircraft left for their home base. The fleet of six aircraft is scheduled to be complete this summer. They will tie into an Australian air and sea surveillance system that monitors traffic as far away as Guam, according to some specialists. The Wedgetail is a Boeing 737-700 derivative carrying a Northrop-Grumman, L-band, long-range, active, electronically scanned array radar.



27 Defense Secretary Robert Gates continues to influence tactical air and intel projects in his fiscal 2012 budget plan.



44 New Middle East instabilities triggered events that have affected the aviation aftermarket.

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MARKET FOCUS

11 Defense spending: a large and tempting target for budget hawks aiming to shrink the federal deficit

THE WORLD

12 Russia using S-400 air defense missile for build-up on islands that Japan is trying to recover

14 AeroVironment flies prototype flapping-wing unmanned aircraft in Darpa's Nano Air Vehicle program

COMMERCIAL PROGRAMS

- **22** Memories of mistakes weigh on Boeing as it considers whether to re-engine or replace 737s
- **24** Boeing edging closer to deciding to upgrade 777 or embark instead on a major derivative
- **25 Flight tests** of the newly unveiled 747-8I will face key challenges ranging from handling to fuel burn
- **26 Move to reduce** 787 drag is part of engine work to close estimated 2-3% gap in fuel performance

U.S. BUDGET

27 Gates attempting to end more unneeded programs, but will be forced to leave issues undecided

- **28 Concern building** around de facto cuts resulting from Congress's inability to appropriate new funds
- **31 Pentagon's budget** request for space aims to prioritize procurement, ops after problematic decade
- **32 After years** of struggling with Meads, Pentagon cuts its losses and cancels plans to deploy the system
- **35 NASA sees market** for non-government human spaceflight to help defray cost of U.S. space ops

AEROSPACE BUSINESS

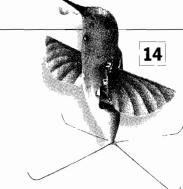
38 European defense firms look to streamlining, targeted acquisitions to help sustain profitability.

AIR TRANSPORT

39 House and Senate in race to keep stripped-down FAA bill free of extraneous measures

- **40** Administration's FAA budget request reduces guaranteed airport grant funding by more than \$1 billion
- **41** Transportation budget offers only a glimmer of hope for aid to equip aircraft for NextGen ATC system
- **42 FAA's 20-year** aerospace forecast underscores the recovery by U.S. carriers, uncertainty about market

- **44 Fuel cost uptick** accentuates challenges to aftermarket business, even in Middle East
- **45 Middle East** will require 40,000 technicians in next 10 years, but only can train about 10,000



- **47 Parts manufacturer** approval component penetration on the rise in field of cabin interiors
- **49** \$424 million Glory mission focuses on the subtle ways solar radiance influences Earth's climate
- **50 Australia integrating** three new operational elements into its advanced, net-centric military

- **54 Limited personnel** numbers inhibiting military's efforts to field a highly integrated, joint force
- **55 Wedgetail AEW&C** aircraft may already be able to detect cruise missiles under development

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- **58** Four-year Wedgetail delay allowed for needed improvements to the advanced, long-range radar
- **60** Some F-111 aircrews turning their strike experience to creating first two F/A-18F squadrons
- **61 Complex integration** paced performance of Advanced C4ISR System that fused air and sea components

EDITORIAL

66 Latest Pentagon consolidation strategy—toward smaller contractors—is cause for alarm