

AVIATION WEEK

& SPACE TECHNOLOGY

Field Of Dreams

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50 Virgin Atlantic GlobalFlyer: New take on Voyager will cruise above the weather, but not above risks.

17 Scientists gain clues to apparent disappearance of spiral galaxies.

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- 26 Mars landing success will form backdrop to new space goals
- 28 European team turns to orbiter as Beagle 2 hopes fade
- 29 Blasted by jets of material, Stardust finds unworldly place
- 30 Pentagon review to spark changes in Army aviation
- 31 Iraq attacks drive special ops and Army helo improvements
- 32 Sikorsky 'Americanizes' S-92 for presidential helo bid
- 33 Budget planning document calls for JSF production cuts

ABOUT THE COVER

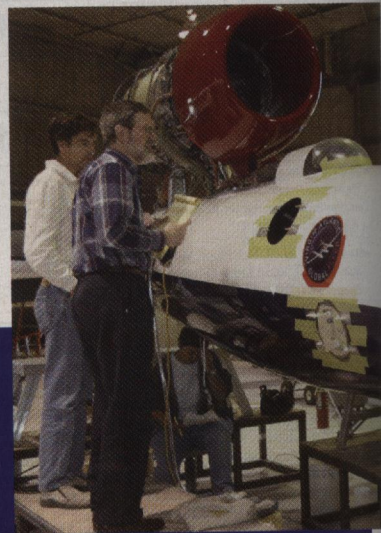
The first color Panoramic Camera image taken by NASA's Mars Exploration Rover Spirit from the surface of Mars shows the area directly ahead of the vehicle where it is expected to roll for science operations late this week (see p. 24). This NASA Jet Propulsion Laboratory image, with 12 million pixels, is about four times more detailed than what was possible during the 1997 Pathfinder mission. The new JPL/Cornell University dual-eyed camera will enable high-resolution close-up imaging as well as telescopic views of distant terrain.

WORLD NEWS ROUNDUP

- 18 Maiden flight for Russia's Mi-38 heavy helicopter
- 19 Austrian Airlines F70 icing accident being investigated
- 19 Vozdukh carbon dioxide scrubber is ISS leak suspect

BEHIND THE SCENES

Jon Karkow (left) shows the small canopy of the Virgin Atlantic Airways GlobalFlyer to Senior Engineering Editor Michael A. Dornheim. Karkow is the Scaled Composites project engineer in charge of the around-the-world aircraft, which was rolled out from the company's Mojave, Calif., facility on Jan. 8 (see p. 50).





41 Israel helping Hindustan Aeronautics market Dhruv advanced light helicopter.

34 Commercial customer found for reflight of Ariane 5 EC-A

AIR TRANSPORT

35 U.S.-Europe fault line widens over aviation security

36 Security incidents could undermine passenger confidence

37 Delta Paris-Cincinnati flight gets extra security

38 Boeing expects '04 delivery performance like that for '03

38 U.S. airlines' international flight capacities mixed

38 Taiwan-Beijing Lunar New Year flights apparently frozen

39 SAE panel: Upset-recovery training may bring problems

40 Suddenly, many carriers ready to serve Singapore

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41 Funding problems may stall sales of advanced light helo

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42 Spain becomes a key customer for missile projects

43 USAF, Navy eye laser demos for anti-missile applications

19 Austrian Airlines F70 in emergency landing after ice protectors departed the aircraft during flight to Munich.

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SPACE TECHNOLOGY

49 Discussions on GPS-Galileo interference still stalled

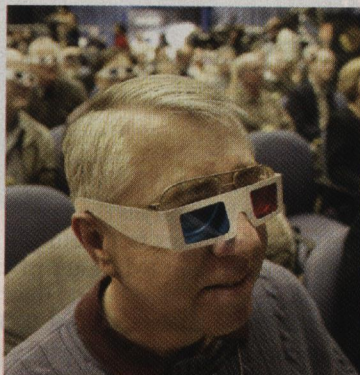
SOLO AROUND-THE-WORLD AIRCRAFT

50 GlobalFlyer blends low drag with rocket's fuel capacity

EDITORIAL

58 Heightened air security: Here to stay, but needs refinement

BEHIND THE SCENES



REUTERS

Senior Editor Craig Covault wears 3D glasses to view stereo imagery from the Mars Exploration Rover Spirit at the Jet Propulsion Laboratory in Pasadena, Calif., where he and Senior Engineering Editor Michael A. Dornheim are reporting on the mission (see pp. 24-28). In his 32 years at *Aviation Week & Space Technology*, Covault has covered Russian Mars missions and the U.S. Viking Mars lander development at the NASA Langley Research Center. Covault also reported on U. S. planetary mission planning for 20 years from Washington. Part of that work included writing about comet mission options, expertise that he applied to JPL Stardust comet intercept coverage.