

AVIATION WEEK *& SPACE* TECHNOLOGY

A PUBLICATION OF THE MCGRAW-HILL COMPANIES • \$5.00 • JULY 21, 1997

*Flying the
New Cessna
Skyhawk*

PAGE 50



MARS

Sojourner the Explorer

AVIATION WEEK & SPACE TECHNOLOGY

About the Cover

A more powerful engine, upgraded airframe systems, new interior and advanced avionics combine to provide the 1997 Cessna 172 Skyhawk with a benchmark design in the evolution of this steadfast general aviation aircraft (see p. 50). Photo by Paul Bowen.

HEADLINE NEWS

Russia, U.S. scramble to repair Mir

Major power disruption, commander's health set back fixes 22

Pathfinder team IDs glitch

Causes computer resets that cut into lander, microover data collection 24

Rover exploits landing site to gain wide range of data

Features open areas to maneuver 28

Next Mars landings could be tougher

Scientists want to find 'samples that may bring back clues of life' 29

New CEO urges bigger role in policy-making for Arianespace

Focuses on launcher development, determining space strategy 32

Admission of 1979 nuclear test finally validates Vela data

Bolsters arguments for carrying detectors on new GPS spacecraft 33

Senate squelches B-2 funding, upholds fighter program

Vote shows alignment of Congress, White House on defense budget 34

Pakistan missile firing triggers Indian protest

Development legality questioned 35

India begins Su-30 operations

Eight delivered in March 35

Industry chiefs prod France on privatization

To eliminate redundancies, boost industry competitiveness 38

Eurofighter partners seek to get schedule back on track

Want to minimize delays caused by belated funding decision 39

Pathfinder aircraft hits 71,500 ft.

Breaks record for highest flying propeller-powered aircraft 40

JAA proposes 180-min. ETOPS for business jets

For operators that can meet specific requirements to be determined 40

AIR TRANSPORT

Flight tests target TWA 800 explosion

Could reveal clues about what caused blast in center fuel tank 41

<http://www.awgnet.com>

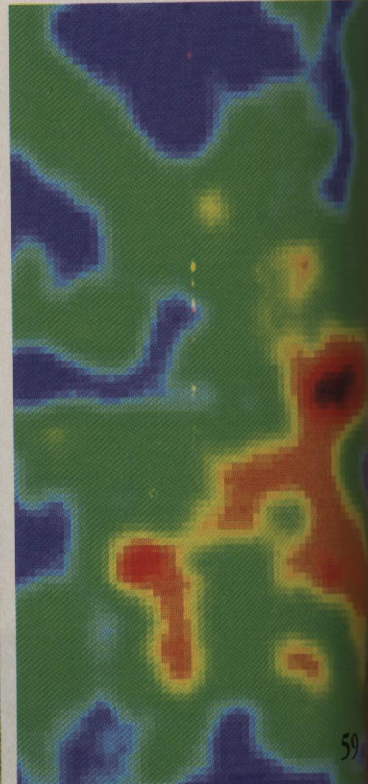
The Safety Resource Center on Aviation Week's Web site offers news and reports about aviation medicine, human factors and other safety-related subjects, as well as links to related Web sites. Our site also features a searchable Gallery of more than 400 aerospace photos and images. We're available on CompuServe, too; just GO AWG.



29



54



59

NTSB faults pilots in fatal DC-8 crash

Cites stall recovery control input 42

FAA issues final rule for upgraded flight data recorders

Mandates major changes in number of parameters monitored 43

Atlantic Coast adds CRJs

In own livery, not United Express 43

AEROSPACE BUSINESS

Applied Aerospace expands through diversification

Builds precision spacecraft parts 44

Merger wave to hit suppliers unevenly

Platform integrators rationalize supply chains, vendors threatened 47

GEC alliance with Alenia kicks off new strategy

Lays groundwork for when European industry consolidates 48

CESSNA SKYHAWK PILOT REPORT

Cessna debuts upgraded 172

Reenters light aircraft market with its next-generation Skyhawk 50

AERONAUTICAL ENGINEERING

Alenia launches C-27J with Lockheed Martin

Will be promoted for export 54

AVIONICS

'Fuzzy sets' detect images

Applications include automatic target recognition 55

SPACE TECHNOLOGY

ESA calls for major overhaul of space science program

To ease new technologies 56

Satellite-tracking telescope readied for USAF service

Enables detection of 4-in. piece of debris in LEO at 300 km. 57

Iridium growth spurt tests ground control

More satellites to be orbited 58

Galaxy cluster puzzles scientists

Could be darkest object seen 59

INFORMATION TECHNOLOGY

Software firm fights airlines' travel agency over rights

Reservation, management system 60

Industry tests 'Oracle8' as improved DBMS

To assess its potential for increased efficiency for geometric design 62

NWS tries net address

Finds distributing user-friendly weather maps via Web isn't easy 62

MISSILE ENGINEERING

Alliant takes on TRW in ICBM contract bid

To manage and upgrade USAF fleet for next 15 years 63

DEPARTMENTS

| | |
|-------------------------|-------|
| Correspondence..... | 8 |
| Who's Where..... | 11 |
| Market Focus..... | 13 |
| Industry Outlook..... | 15 |
| Airline Outlook..... | 17 |
| News Breaks..... | 18-19 |
| Washington Outlook..... | 21 |
| Filter Center..... | 55 |
| Aerobyte..... | 61 |
| Classified..... | 64 |
| Aerospace Calendar..... | 67 |
| Contact Us..... | 68 |

VIEWPOINT

At Pentagon, high tech is rhetoric.....70



63



34



39