## DEPARTMENTS

## EDITOR ${ }^{\text {fs }}$ Notit

## READERS Тай ВАСК 8

$\mathbb{N H A T}^{7}$ s N New 10

## NIEWSFRONTS

Science \& Technology 23 Electronics 32
Automotive 36 Home Technology 48 Computers \& Software 51

## LOOKING

 ВАск 116

80
The virtual world


## FEATURES

## Tragedy And Triumph In Space <br> 58

In six months, NASA has experienced a gamut of pain and glory. After the loss of the Mars Obsevere, the ogency rebounded with the rescue of the Hubble Space Telescope.

## Unvired <br> 66

Lead by BellSouth's Simon and Motorola's Envoy, a new wave of personal digital assistants is expanding the role of a PDA by enabling you to send messages and make voice calls through thin oir.

## The Etiernal Airplane

A plane that can fly forever? In theory, yes. Photovoltaic solor cells give the unmanned Pathfinder aircraft a limitless fuel source, while a future incarnation of the plane is slated to use fuel cells to power it after the sun sets. Pathfinder could serve as a tireless border guard, scout politically sensitive areas, or soar through the upper atmosphere collecting weather data.

## The Aluminum Revolution 76

New metallurgical techniques ond tinkertoy-like joints could bring all-loluminum cars to the mosses with the new A8 Audi. More structural duminum cars are likely to follow.

## Now Playing In The Virtual World 80

"Ridefilms" hove tronsformed Los Vegos with hightetech thrills. Offering the impact of a theme pork in booths and machines under one roof, they represent a prototype of urbanentertainment centers for the future.

## CONTROLING TRACTION 86

We test the greatest boon to winter diving since the Interstate to Florida by taking five American cars to the icy roods of Michigon's Upper Peninsula. Making the trek were the Cadillac Fleetwood Brougham, Chrysler Concorde, lincoln Mark VIII, Oldsmobile 88 Roygle LSS, and Satum SL2.


