

# AIR & SPACE

Smithsonian



**36** The world's only flying Lockheed Vega gleams in the sun near Phoenix, Arizona.

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Part space shuttle, part Apollo, the next U.S. launcher will be the most powerful ever built. Will it be the best?

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The city that Donald Douglas built now has a gripe with airplanes.

BY STEPHEN JOINER

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How one last Vega returned to fly.

BY ZACH ROSENBERG AND RICHARD VANDERMEULEN | PHOTOGRAPHS BY RICHARD VANDERMEULEN

**ON THE COVER:** In three years, technicians at NASA's Kennedy Space Center will strap solid boosters to a new rocket (very much like this computer-generated one) for a test flight to the vicinity of the moon. Twenty years later, the rocket could send people to Mars. Story, p. 20.



**42 Untethered**

What's it like to drift away from the space shuttle with your own private spacecraft, then make your way very slowly back? Here's why only five got to find out.

BY ANDREW CHAIKIN

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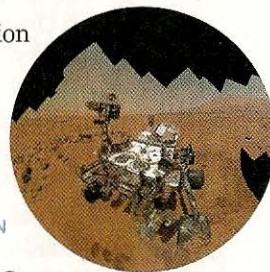
They can end up in the worst possible hands.

BY TIM WRIGHT

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The chief engineer on the Curiosity rover confronts Mission Impossible: Land humans on Mars.

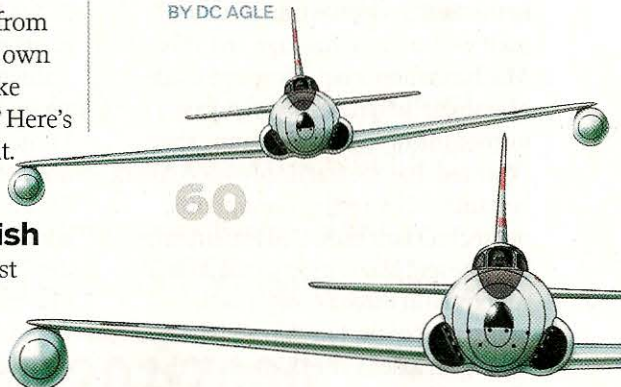
BY ROBERT MANNING AND WILLIAM L. SIMON



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BY DC AGLE



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