## \* PUZZLER

This airplane is used by NASA for astronaut training. When it flies along a certain curved path, anything inside the plane that is not strapped down begins to float. What causes this strange effect? (NASA)

#### web

For more information on microgravity in general and on this airplane, visit http://microgravity.msfc.nasa.gov/and http://www.jsc.nasa.gov/coop/kc135/kc135.html



#### chapter



# **Motion in Two Dimensions**

### Chapter Outline

- **4.1** The Displacement, Velocity, and Acceleration Vectors
- **4.2** Two-Dimensional Motion with Constant Acceleration
- 4.3 Projectile Motion

- 4.4 Uniform Circular Motion
- 4.5 Tangential and Radial Acceleration
- **4.6** Relative Velocity and Relative Acceleration