NASA’s Aerospace Research and Technology Base Program is developing technologies for a new type of aircraft that would be more economical and efficient than today’s airliners. This revolutionary flying wing configuration, called the Blended Wing Body (BWB), has a thick airfoil-shaped fuselage section that combines the engines, wings, and body into a single lifting surface.

The BWB could carry as many as 800 passengers over 7,000 miles at a cruise speed of about 560 mph. Compared to today’s airliners, it would reduce fuel consumption, harmful emissions, operating cost, and noise levels. NASA is developing high-payoff technologies for a new generation of safe, environmentally compatible, and highly productive aircraft.

Airplanes of the future may look very different from those of today. Be an engineer and experiment with a possible new wing type.

Additional information is available over the Internet at:

http://www.aerospace.nasa.gov/
Ring Wing Glider

This wing demonstrates the great room there is for aeronautics innovation. Can you design a better wing?

1. Fold 8.5 x 11 inch paper diagonally as shown.

2. Make a 1/2 inch fold along the previously folded edge.

3. Make a second 1/2 inch fold.

4. Curl the ends of the paper to make a ring and tuck one end into the fold of the other.

5. Gently grasp the “V” between the two “crown points” with your thumbs and index fingers and toss the glider lightly forward.

The folds in the paper make an airplane wing where the front end is heavy and the back end is light. Curling the ends to make a ring changes the shape of the wing and improves the wing’s flight performance.