

WHY A MEMBRANE WING ?

1. VERY LIGHT WING WEIGHT PER UNIT AREA MAKES POSSIBLE VERY LOW WING LOADING
2. ABILITY TO BE ROLLED UP OR FOLDED LIKE A PARACHUTE
3. RADIATION FROM BOTH SURFACES REDUCES AERODYNAMIC HEATING AND FLEXIBILITY REDUCES THERMAL STRESS
4. VERY THIN WINGS REDUCE WAVE DRAG AT HIGH SPEED
1. REENTRY
2. SPACE SHIP LANDING
3. SOLAR SAILING
4. HIGH ALTITUDE CRUISE (POSSIBLY DISSOCIATED OXYGEN PROPULSION)
5. PERSONNEL AND/OR CARGO GLIDING PARACHUTE AS SUBSTITUTE FOR CONVENTIONAL PARACHUTE
6. WINGS FOR STOL (COULD BE ROADABLE)
7. LANDING AID FOR CONVENTIONAL AIRPLANE (LIFT ADVANTAGE OVER DRAG)

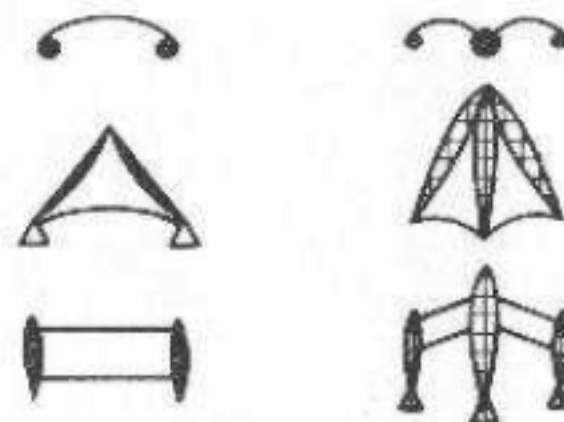
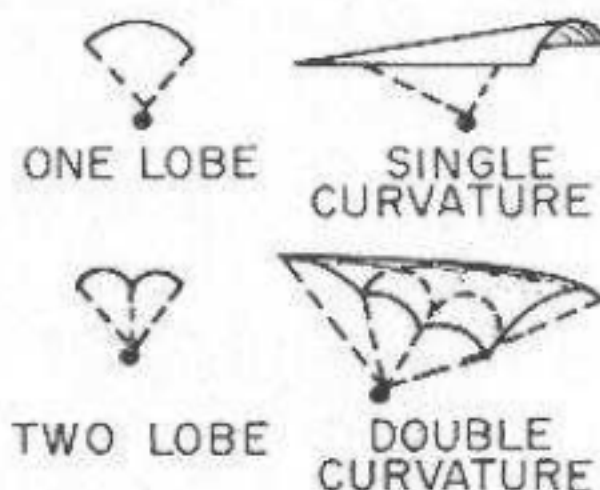
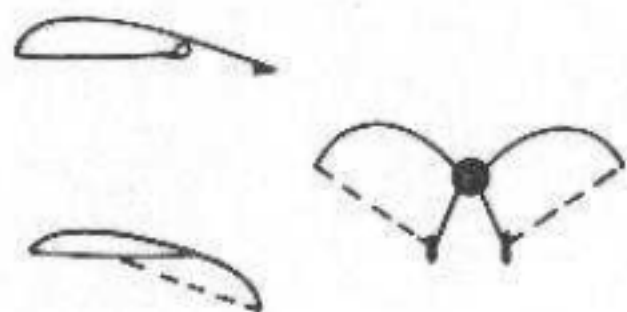
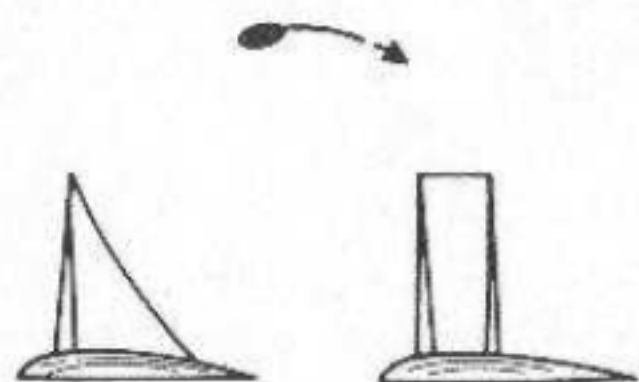


Figure 1.- Flexible-wing concept as presented to Langley Committee on General Aerodynamics, December 19, 1958.