

**PROPULSION SYSTEM FOR A LIGHTER-THAN-AIR VEHICLE****ABSTRACT**

5 The invention is a propulsion system for a lighter-
than-air vehicle 10. In detail the propulsion system
includes a pylon 40 having a longitudinal axis and first and
second ends 42,44, the first end 42 of the pylon 40
10 rotatably mounted to the vehicle 10 and the second end 44
extending outward from the vehicle. The pylon 40 is
rotatable about the first end 42 in a plane perpendicular to
the longitudinal axis 12 of the vehicle. A thrust producing
assembly 26 is mounted on the second end 42 of the pylon 40
and is rotatable about an axis of rotation in a plane
15 perpendicular to the longitudinal axis of the pylon 40. A
powerplant assembly 32A, 32B is coupled to the thrust
producing assemblies 26 to provide power thereto. An
actuation system 74 s provided for rotating the assembly 26
about the axis of rotation. A second actuation system 60 is
20 provided for rotating the pylon 40 about the first end 42.