

FLYING ACES

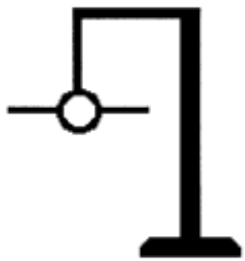
MEASUREMENTS:

1. What is the time for a single revolution at top speed? _____ s/rev
2. What are the maximum and minimum radii of the planes and their angles with respect to vertical?

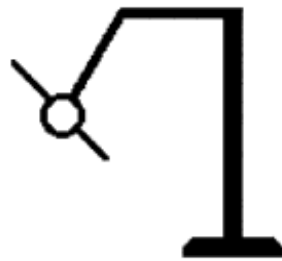
Maximum: _____ m _____ ° Minimum: _____ m _____ °

QUESTIONS

1. Planes move (toward, away from) the middle as they turn faster.
2. What causes this to happen?
3. Although the center hub rotates at a constant rate, it does not feel that way. Why?
4. Diagram vector forces acting on the planes shown below.



Plane at Rest



Plane in motion at maximum angle from vertical

5. Calculate the speed of the planes in the two figures above.

_____ m/s

_____ m/s