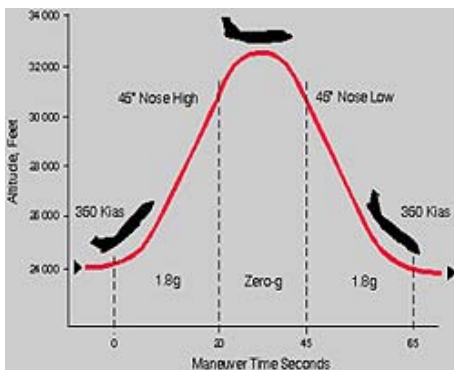


SPACE WARRIORS

ACTIVITY 4: THE “VOMIT COMET”



The “Vomit Comet” is a real type of airplane that can provide the brief experience of a nearly weightless environment. The “Vomit Comet” is used to train astronauts and for research purposes. A series of “Vomit Comets” have been operated in the United States by the NASA Reduced Gravity Research Program, which has been around since the late 1950s. During each flight, which typically lasts between 2 and 3 hours, the plane flies 40 to 50 parabolic arcs. During each arc, passengers experience 20 to 25 seconds of near-zero gravity, when they experience what it feels like to be in outer space.



A parabolic arc is a curve of equal distance to its fixed points. The diagram on the left shows a flight plan for the “Comet” during typical zero-g maneuvers. The diagram on the right shows what it is like to be there.

How did the “Comet” get its name? Sadly, during weightlessness, even the toughest astronaut may lose her lunch. Most people just shake off this “side effect.” They know it’s just part of the job.

SUGGESTED ACTIVITIES

- What do you think it would be like to take a ride on the “Comet”? Learn about some first-hand experiences: <http://www.youtube.com/watch?v=2V9h42yspbo> and write a description of your own imaginary journey.
- Learn about what it’s like to shoot a basketball in zero-g! Go to http://www.nasa.gov/audience/foreducators/microgravity/home/free_fall_ball.html You can even try shooting some online zero-g baskets yourself!

