

Hawking's brief history of weightlessness

Stephen Hawking, the British physicist and best-selling author who has spent his career pondering the nature of gravity from his wheelchair, is set to experience zero gravity on board a specially configured aircraft that travels a curving parabolic path



G-FORCE ONE: Modified Boeing 727



PARABOLIC MANOEUVRE

9,750 metres

8,550 metres

7,350 metres

1. Nose-up:

Plane accelerates at 1.8 times gravity into steep climb of 45 degrees

20 seconds

ZERO-G

2. Free-fall:

Weightless periods when plane reaches apex of curve and begins to drop

25 seconds

Dr. Hawking, 65, who has **Lou Gehrig's** disease, will float freely during weightless periods.

Medical team will closely monitor risk of injuries and stress on cardiovascular system

3. Pull up:

When fall angle reaches 30 degrees plane is pulled back into horizontal flight

20 seconds

Parabola repeated up to 3 times