



The physical world: helicopters

Emergency landing

ANGELA: The unique capabilities of the helicopter can make it a fearsome enemy, or a lifesaving friend; the common link is the science that holds them up in the air. If you're a designer you depend on physics for your livelihood. Pilots depend on physics for their lives. But even if the worst happens, and your engine stops in mid-air, all is not lost. Welcome to the world of autorotation.

(CONVERSATION IN HELICOPTER)

TUTOR 2: People think if the engine stops you're going to die and this just isn't true. A helicopter will glide in a very similar fashion to the way a fixed wing aircraft with glide.

(CONVERSATION IN HELICOPTER)

PETE CUMMINGS: Autorotation is something all helicopter pilots practice and you all have to be able to do it almost as an automatic reaction.

(CONVERSATION IN HELICOPTER)

PETE CUMMINGS: It's an interesting event the first time you do it because it all happens quite quickly. You don't have many choices left once you enter autorotation as you have to think quickly and work accurately with a helicopter.

(CONVERSATION IN HELICOPTER)

TUTOR 2: If the engine stops, the main rotor keeps going, and this is created by the airflow coming up from underneath the helicopter so you're going to go down, there's no question about that, but you're still under full control and you can choose an area on the ground the size of a tennis pitch and you just put the helicopter into it.

(CONVERSATION IN HELICOPTER)

ANGELA: Marie and Tracy have got an awful lot to learn if they wanted to be pilots but they were at least able to have a go, and now they know something of what it takes: skill, courage and a little bit of physics.

GIRLS CELEBRATING