

Imagine a planet covered entirely with water with the exception of a single small island. On this island is a sizeable fleet of airplanes and an endless supply of fuel. These airplanes are very peculiar though: they can carry only enough fuel to fly half-way around the planet, and they are capable of exchanging fuel between themselves instantaneously midair. What is the fewest number of planes that would have to be used to allow a single plane to fly completely around the planet and back to the small island along a great circle?

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