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SINGAPORE AIRSHOW 2010
CAAS, SIA make history with first multi-sector green flight

The flight marks CAAS' entry to the Aspire programme

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THE Civil Aviation Authority of Singapore (CAAS) and Singapore Airlines (SIA) have successfully pulled off the world's first multi-sector demonstration green flight, which resulted in fuel savings of about 6 per cent and reduced carbon emissions of over 33 tonnes.

The Boeing 747-400, which departed Los Angeles on Jan 31, arrived in Singapore via Tokyo half an hour earlier than expected early yesterday morning.

The flight marked CAAS' entry to the Asia and Pacific Initiative to Reduce Emissions (Aspire) programme on Monday, a partnership of air navigation service providers (ANSP) which aims to promote best practices to reduce aviation emissions globally.

'The route an aircraft takes, the altitude at which it flies and the weather it encounters all affect the amount of fuel it burns and the carbon dioxide emitted,' said SIA's senior vice- president of flight operations, Gerard Yeap.

On top of its usual engine and airframe maintenance programmes, SIA put the aircraft through a special engine wash programme to optimise fuel efficiency and polished the airframe to reduce drag.

At the same time, ground electrical supply was used to power the aircraft when it was on the ground as opposed to the plane's auxiliary power unit.

However, what ultimately contributed to the greatest fuel savings was using a user preferred route through a flight planning system during the flight, whereby the pilot could alter the flight path based on wind patterns to reduce flight time.

ANSP partners in the US and Japan also worked together with CAAS to ensure that the aircraft could operate in ideal air traffic conditions, from departure to cruising to arrival.

This included priority clearance for departure as well as allowing the aircraft an uninterrupted descent - versus the conventional step-descent method - which results in less fuel burn.