



Australian Government
Department of Climate Change
and Energy Efficiency

Developing Australia's Aviation Climate Change Action Plan

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Overview of Australia's Action Plan

- Suite of strategies to address emissions from international and domestic aviation
- Encompasses measures to reduce emissions from aircraft operations and within airport boundaries
- ICAO's goal - 2% annual average fuel efficiency improvement
- Baseline: [Emissions data available from 1990](#)
[Domestic fuel efficiency data from 1990](#)
[International fuel efficiency data from 2008-09](#)
Track emissions from a base year
- Action structured around responsibilities of implementation bodies: AirServices Australia, airlines, airports, government and air traveller
- Quantification of potential CO2 savings where possible



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Australian Government Initiatives

- Committed to economy-wide emissions reduction targets of at least 5% by 2020 and 60% by 2050 below 2000 levels.
- Proposes to set a fixed domestic carbon price from 1 July 2012 as an interim measure until a full emissions trading scheme can be introduced in 3–5 years
- Targeted assistance for the development of new biofuel technologies
- Alternative Transport Fuels Strategy
- National Carbon Offset Standard from 1 July 2010
- Development of carbon footprinting tools



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Air Traffic Management Measures

- Australia operating at maximum ATM operational efficiency of 98-99%. Future challenge: maintain peak performance with growth in air traffic.
- Ongoing ATM procedures to improve aircraft operational efficiency
 - Flextracks – flexible routes optimised for prevailing weather
(saves ~3.4 tonnes CO₂ per flight from the Middle East to Australia)
 - RNP approaches and departures (saves ~403 kg CO₂ per approach)
 - Gate-to-gate management (saves ~600 kg CO₂ per Melbourne-Sydney flight)
 - International collaboration – ASPIRE
(saves ~18 tonnes CO₂ per flight across the Pacific)
- Airservices Australia is employing the use of the Air Traffic and Operations Management Simulator (ATOMS) to quantify potential benefits of individual ATM procedures



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Airline Emissions Reduction Measures

- Fleet renewal
- Weight reduction measures
- Improving load factors
- Voluntary offsets for air passengers
- Voluntary offsets by airlines



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Airport Initiatives

- More efficient use of ground support equipment
- Reducing the use of APUs
- Solar panels
- Solar-powered airfield lighting
- Improved energy efficiency in airport buildings
- Land transport linkages



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Alternative Aviation Fuels

- Sustainable Aviation Fuel Road Map for Australia and New Zealand – May 2011
- Australian Government Alternative Transport Fuels Strategy – Sep 2011
- Commitment to establish an Australian Biofuels Research Institute
- Qantas in joint ventures with Solena and Solazyme to develop “drop-in” alternative jet fuels
- Microalgal biofuel projects at Australian universities – Adelaide University and James Cook University
- Challenges: (1) Commercialisation (2) Competition from other transport sectors for alternative fuels



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Next Steps

- Liaise with key industry players to develop Australia's Action Plan.
- Quantify potential gains for individual measures where possible

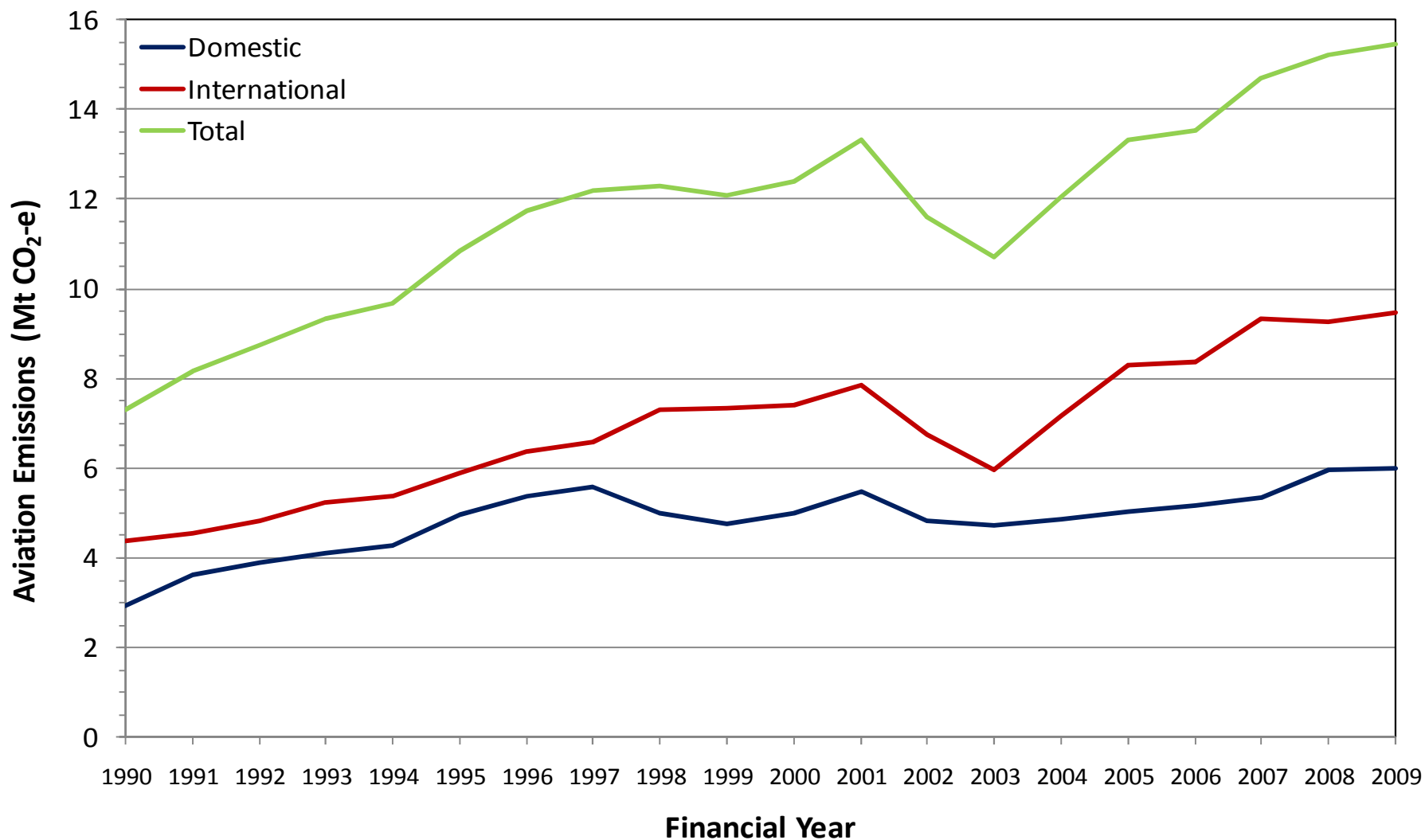
Thank You



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Australia's aviation emissions, 1989-90 to 2008-09



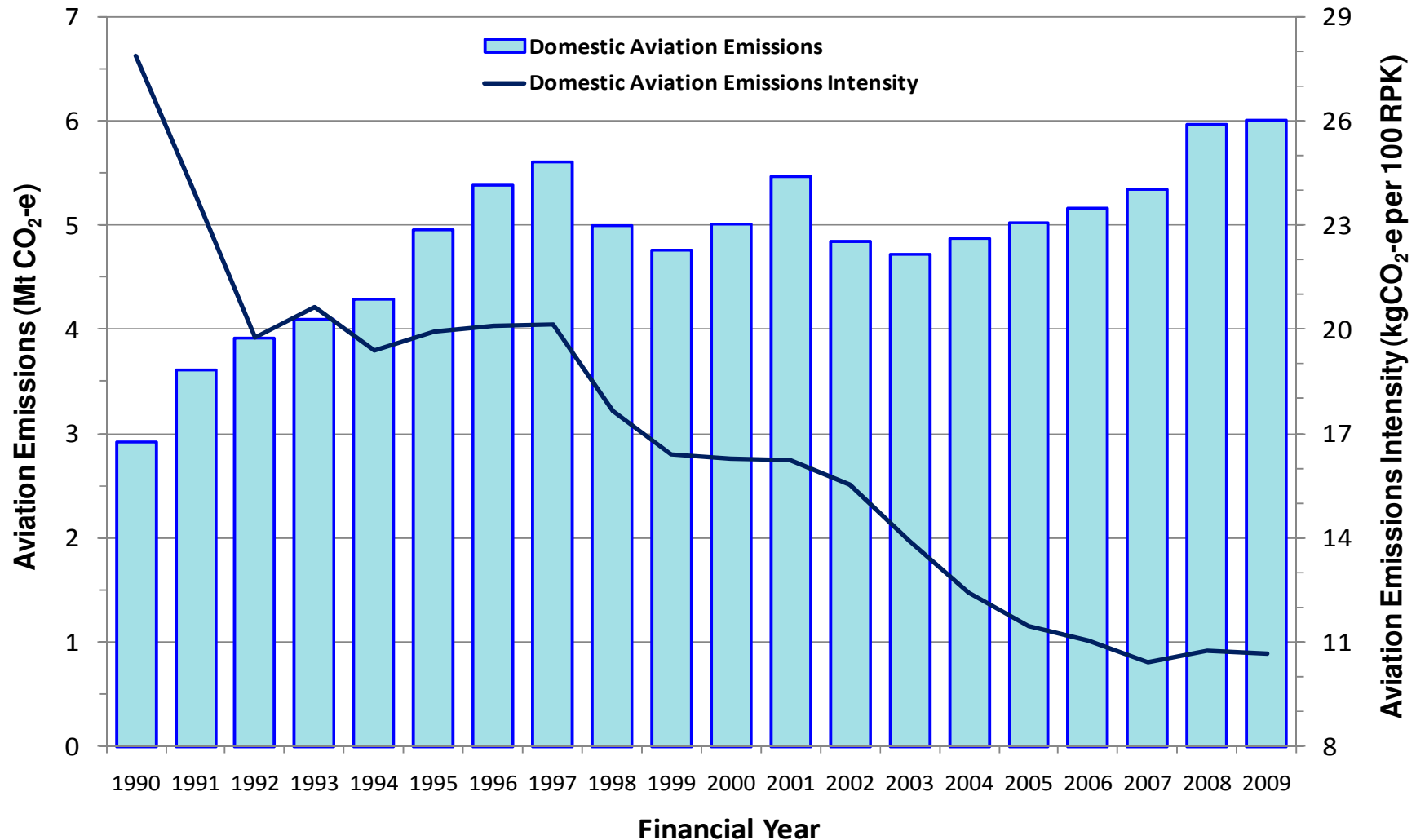
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Australia's annual domestic aviation emissions, 1989-90 to 2008-09



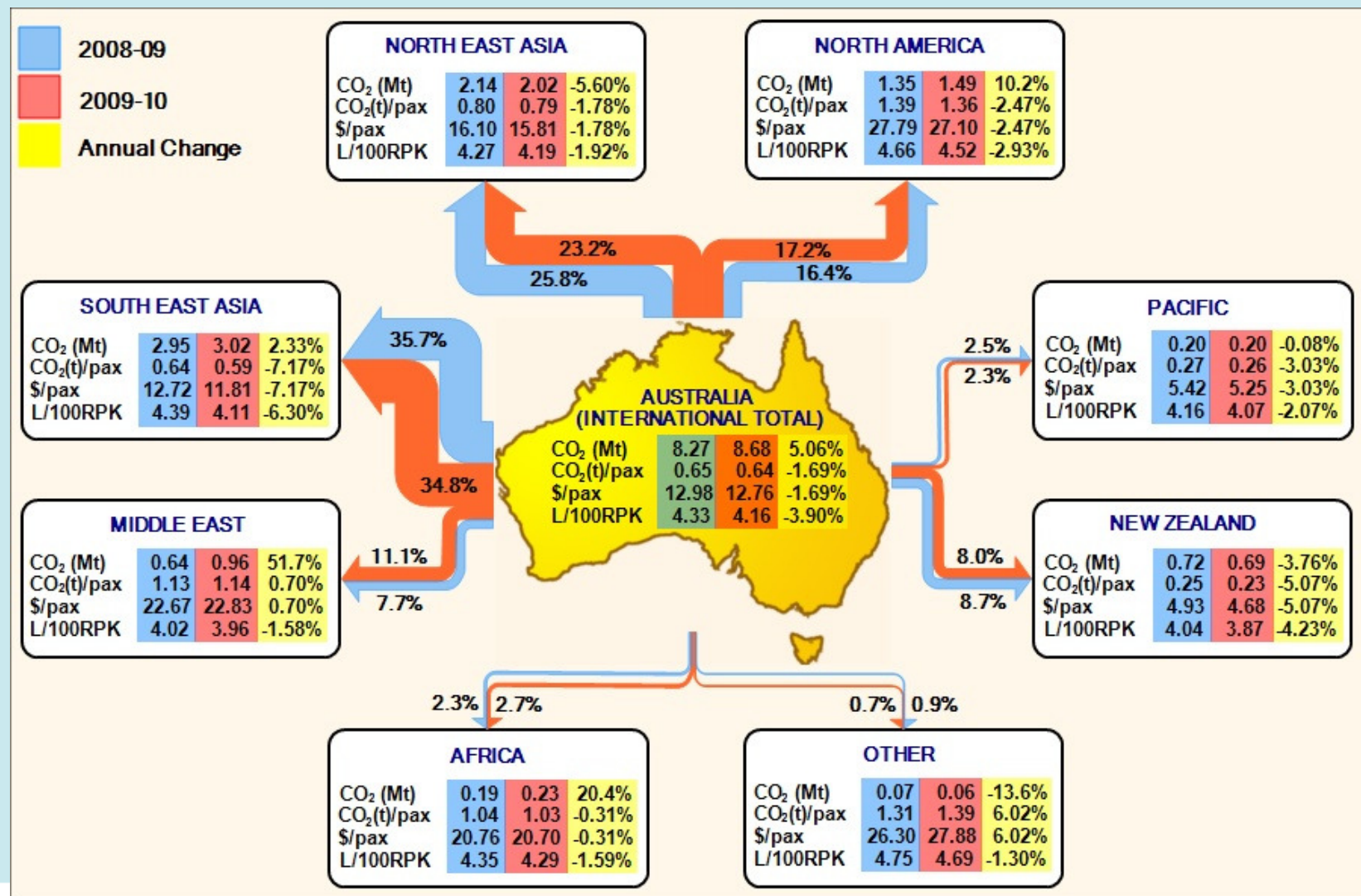
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Australia's international aviation emissions, 2008-09 and 2009-10



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