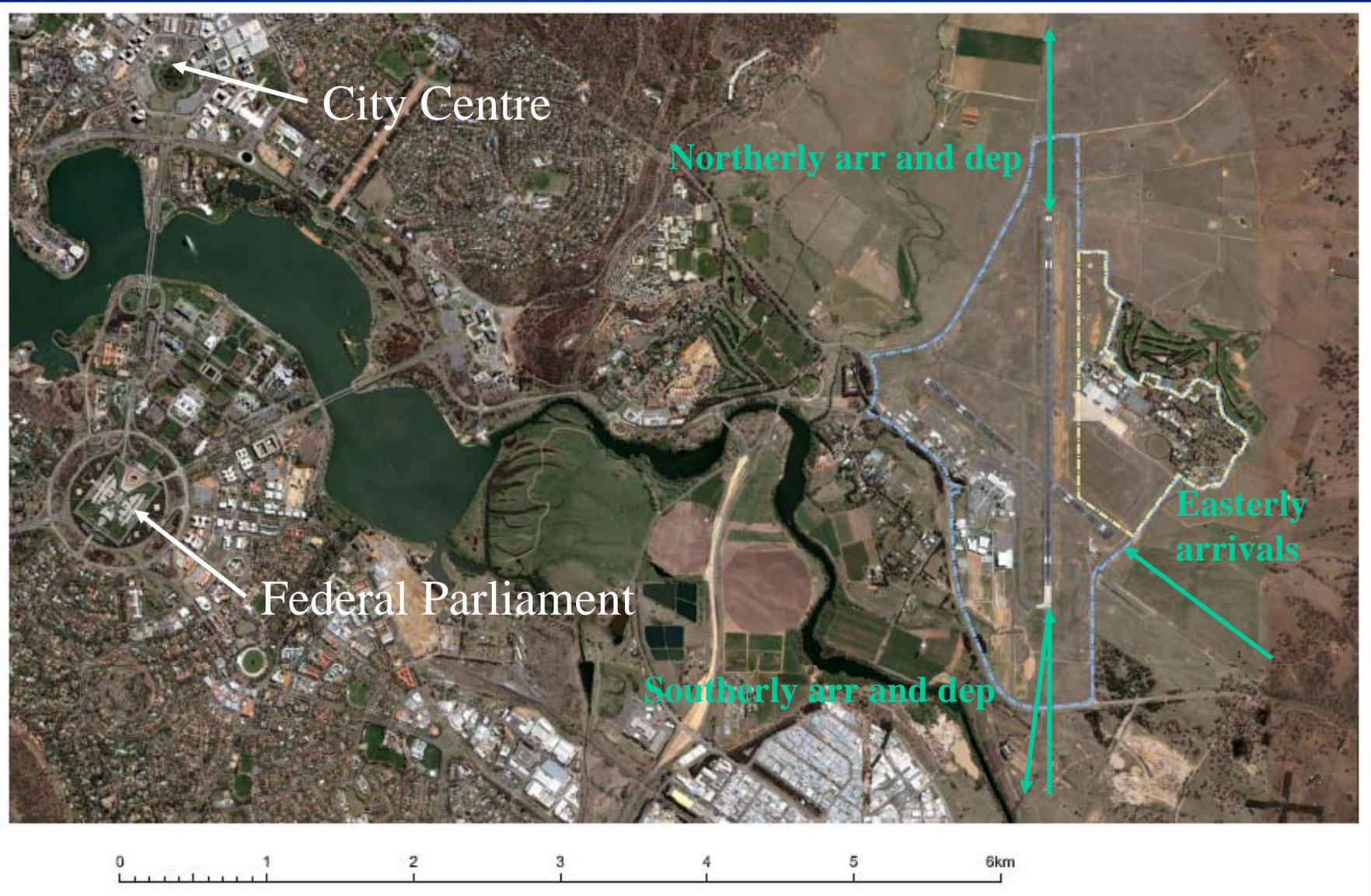




# Canberra International Airport

*Innovative Land Use Planning at  
Canberra International Airport,  
Australian Capital Territory (ACT),  
Australia*

*7 March 2006*



# Canberra International Airport – city centre airport

# Location

- A major city airport (6km or 4mi from City Centre) serving the Australian National Capital.
- Canberra is 2.5 hours drive or 35min flight from Sydney with direct motorway access



# Operational snapshot

- Canberra Airport is a slot-free, curfew-free airport with significant potential as an overflow airport for Sydney (particularly freight), which is curfew and slot restricted.
- The Airport is determined to stay curfew-free.
- Growing maintenance centre with heavy maintenance on RAAF C-130 aircraft and ongoing maintenance on RAAF VIP fleet.
- Runway extension and new terminal in 2006.

# Operational snapshot

- Mix of airline, military and General Aviation aircraft – 76,500 movements 04/05
- Airlines operate approximately 120 movements per weekday, approx half jets (B737s) and half turboprops (Dash 8s)
- 2.5 million passengers per year approx with strong ongoing growth
- Average size of aircraft now over 90 seats.



# Canberra International Airport – October 2003 National Capital Role

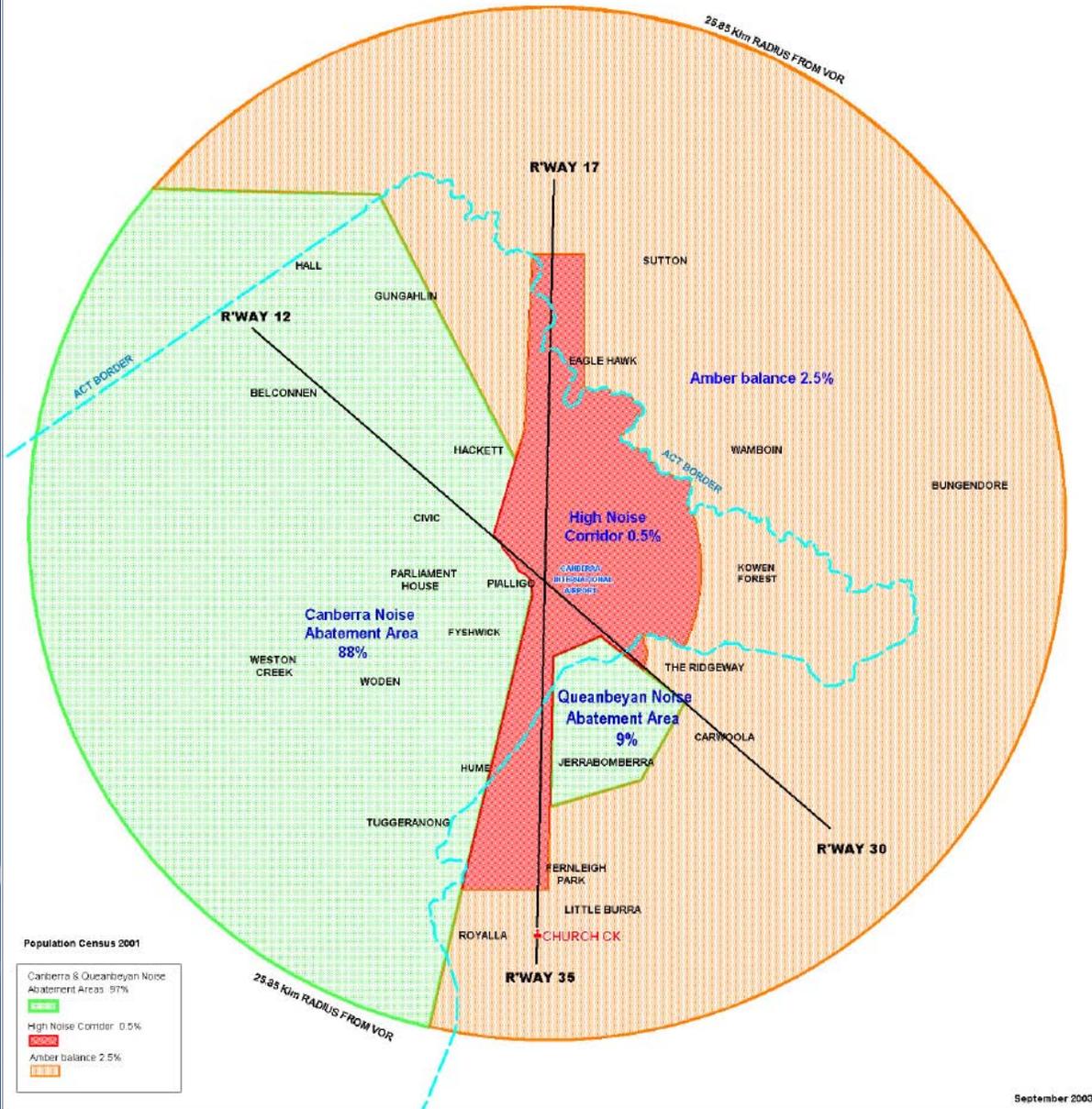
# The story so far...

- Residents become annoyed by aircraft noise at over 65dBA (single events).
- Residents complain about low-level direct aircraft overflight.
- The ANEF (NEF) system does not accurately represent community noise values.
- Residential-free land corridors provide the only effective community response.

# Regional Legacy

- Good planning has ensured the major N/S arrival and departure paths are largely free of residential development.
- The arrival/departure flight tracks cover both the ACT and the neighboring state of New South Wales (NSW).

The Canberra and Queanbeyan Noise Abatement Areas protect 99.5% of residents and 97% of the region.



POPULATION DISTRIBUTION AROUND CANBERRA INTERNATIONAL AIRPORT

# Aircraft Noise – a political animal

- Aircraft noise is a highly sensitive political issue.
- Canberra Airport is particularly prone to political outcomes for two primary reasons:
  - The 600 homes in the High Noise Corridor lie in a highly marginal seat where 100 households can make the difference at an election.
  - Canberra and region residents are highly politically savvy and know how to use the political system to their benefit.

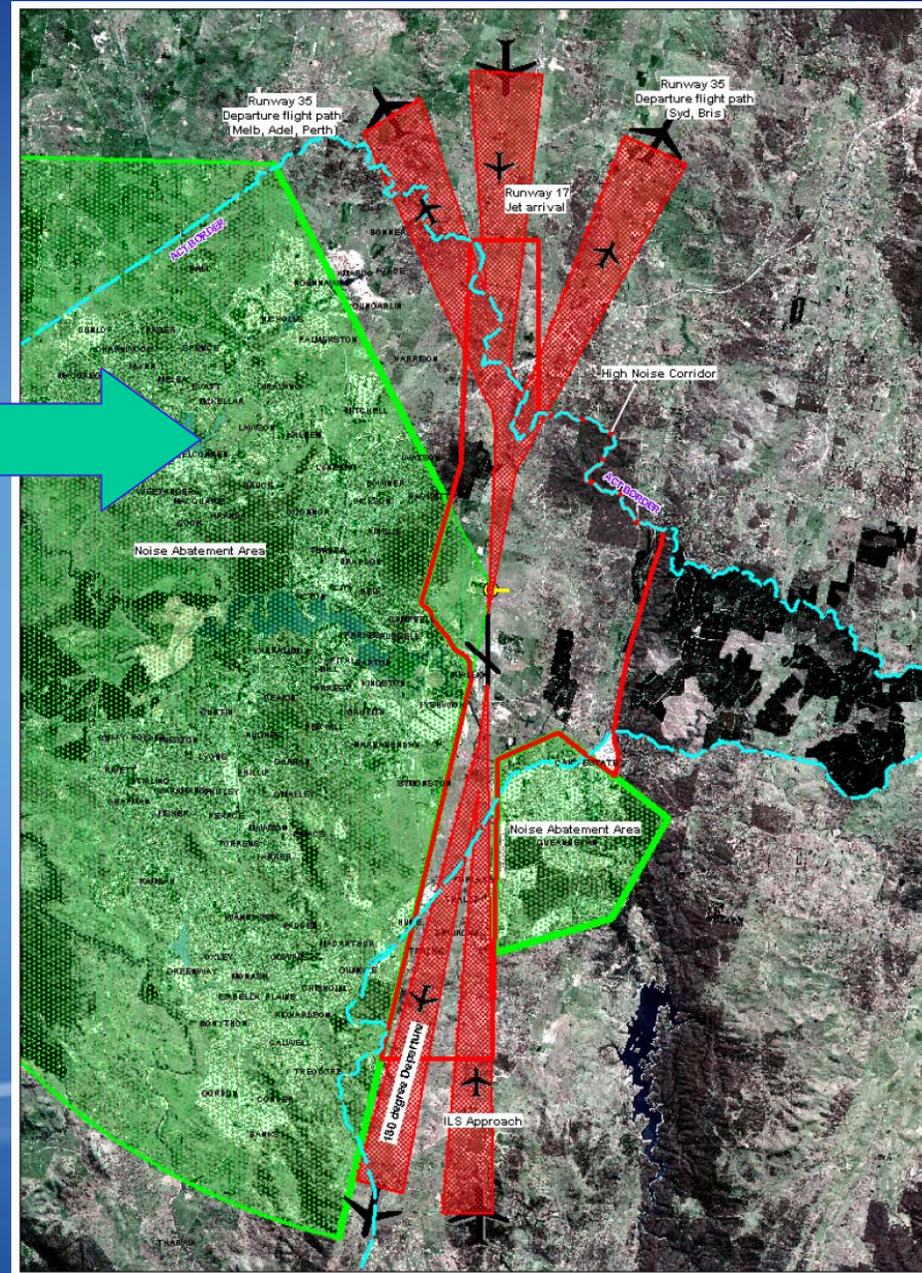
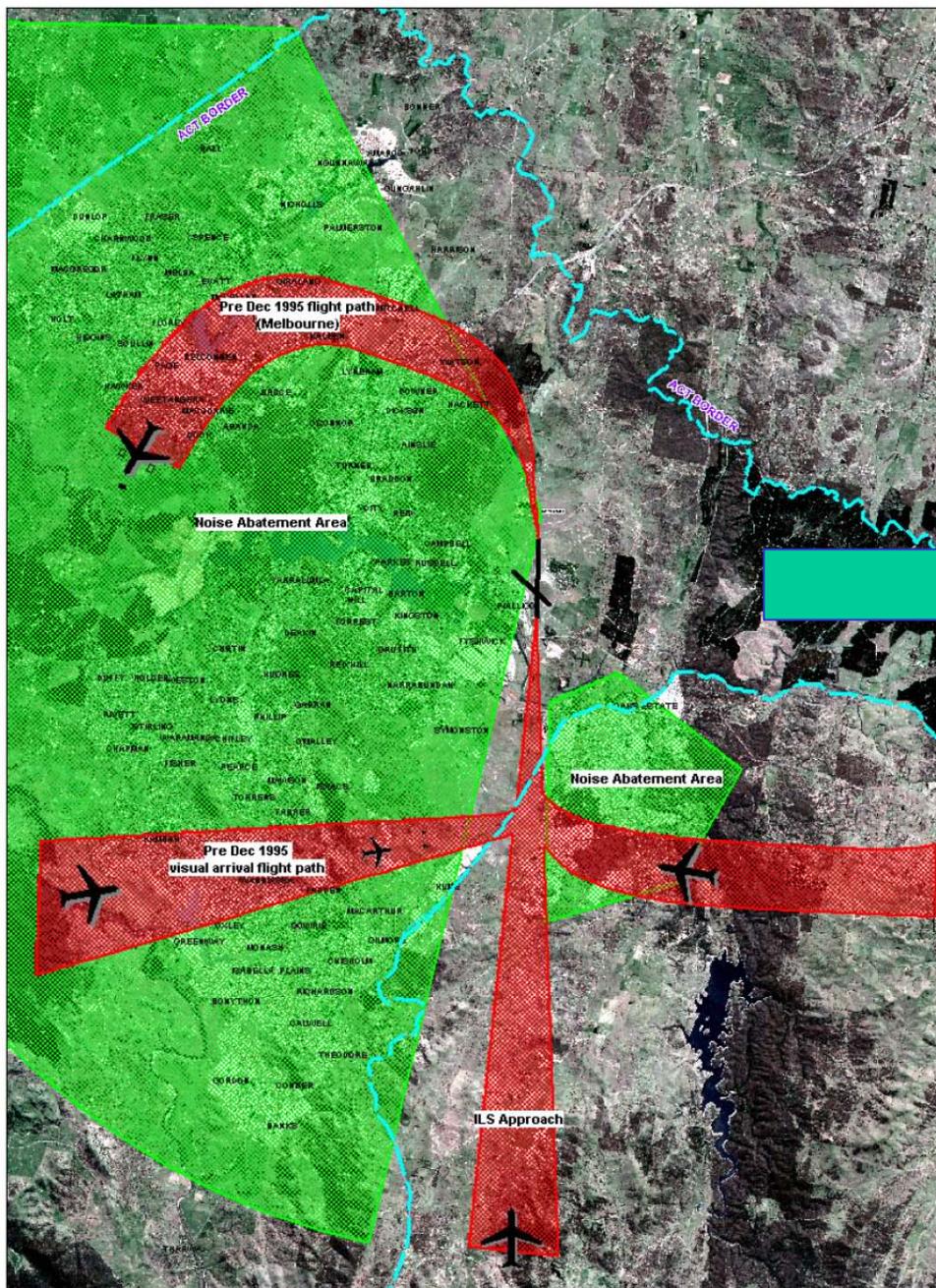
# Aircraft Noise – a political animal

- The High Noise Corridor is gaining increasing acceptance and praise from different levels of government, industry and the community.
- Airservices Australia said:
  - “Airservices Australia has ample experience from dealing with communities around airports Australia-wide to know that aircraft noise is very likely to become a major issue for potential future residents of “Tralee” should the proposal go ahead. If this occurs, there would be pressure for relief measures, such as placing restrictions on the operations of the airport and for the “sharing” of noise by spreading the tracks over areas currently protected by the Noise Abatement procedures.”

# Aircraft Noise – a political animal

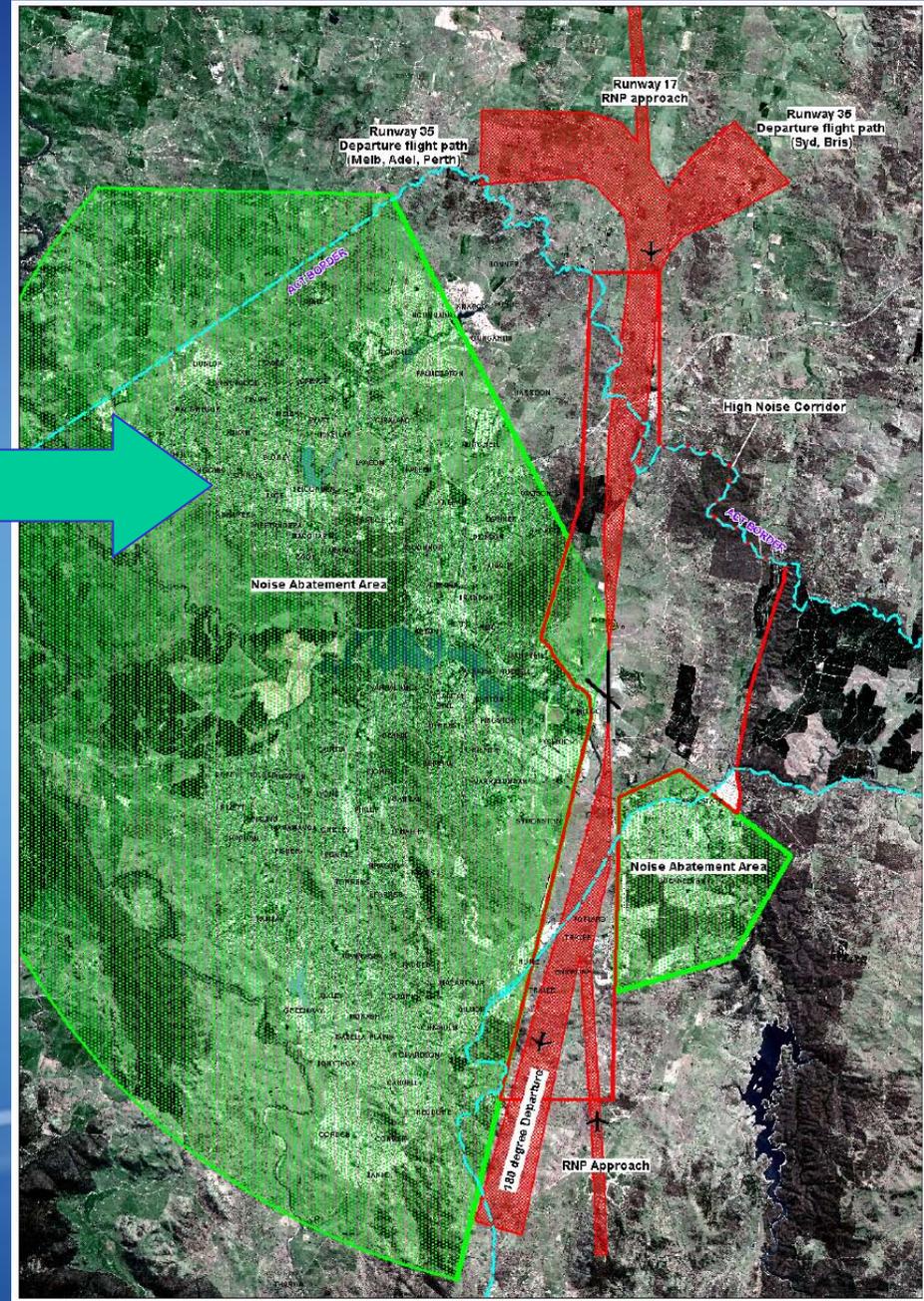
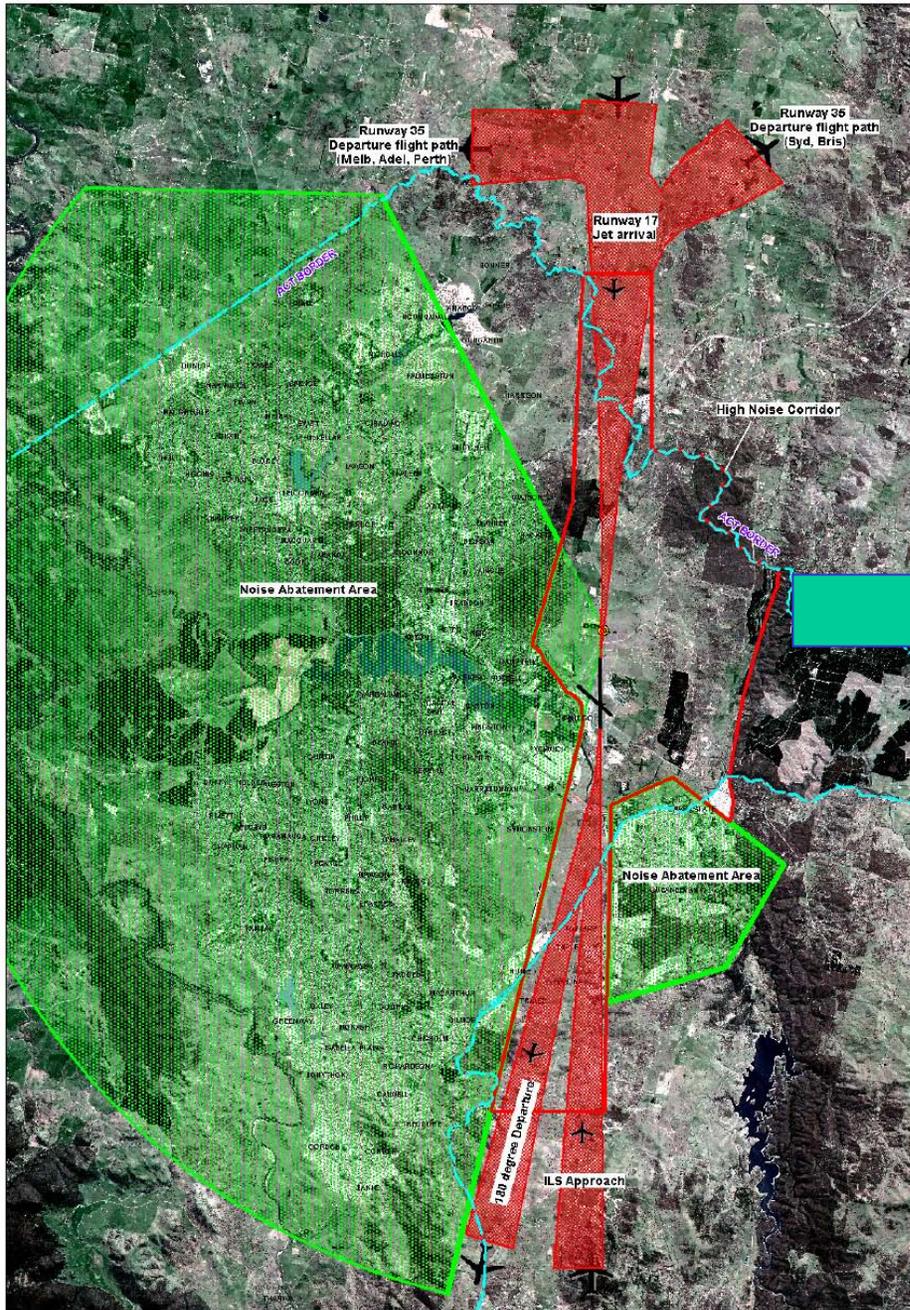
- Martin Ferguson, Opposition Transport Spokesman said:
  - “I commend the actions of Canberra Airport owners, Capital Airport Group, in their efforts to develop and publicise their expectations about the future impact of aircraft noise on the communities surrounding the Airport.”
  - “... the current working group is heading in a direction of a more strategic, long term approach to planning issues in this district and **one that acknowledges the importance of protecting the flight corridors.** I commend this direction”.
- Nonetheless, the NSW local council responsible for land development south of the airport rejects the corridor and is pressing ahead with plans for thousands of homes under the flight path.

# 2003-04 flight tracks



13  
Pre-1995 flight paths

# 2006 RNP flight paths



14  
2004-05 SIDS

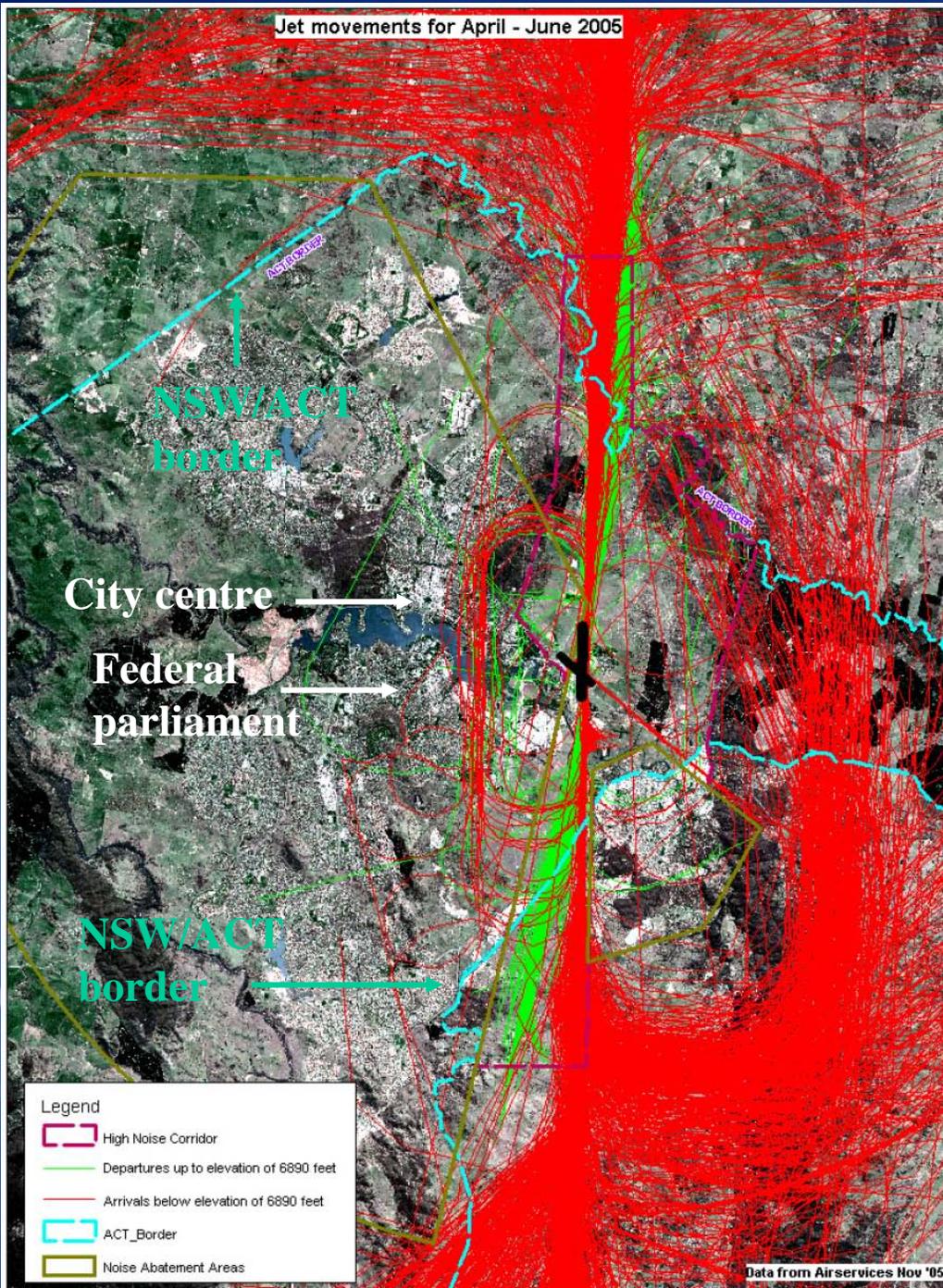
# The solution

- Land-use planning is a **long-term** solution.
- Regional population can grow from 360,000 to over 750,000 (over 100% increase) over the next 40 years without one additional home in the flight corridor.
- The High Noise Corridor will protect the legacy for the long term.

# High Noise Corridor

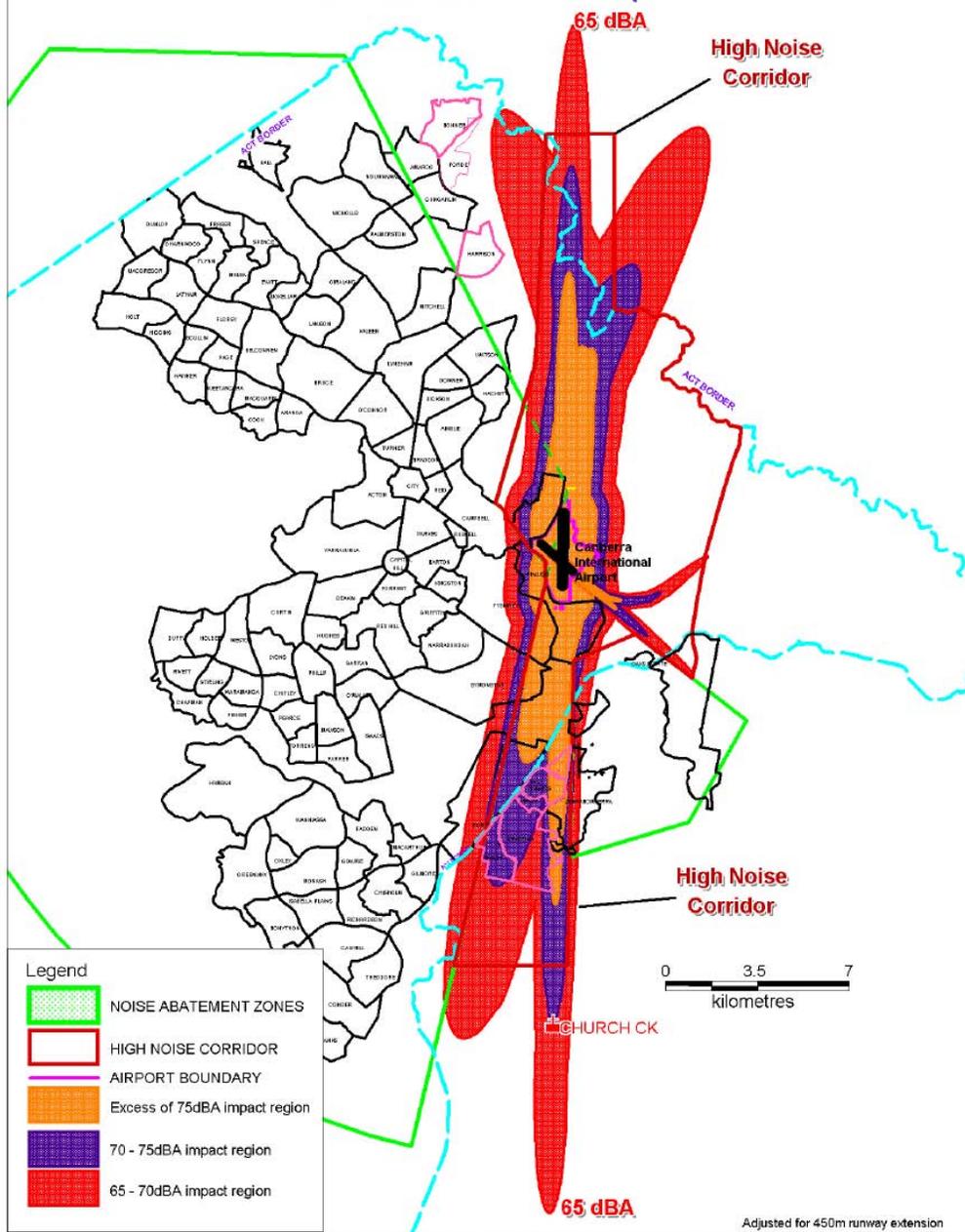
- Inspired by ICAO's "Balanced Approach" which encourages airport-by-airport local solutions
- Primarily uses the "Land Use Planning" limb of the Balanced Approach integrated with some additional Noise Abatement Operational Procedures.
- Canberra Airport has designated this as the "**High Noise Corridor**" and maintains it is an area in which further residential or other noise sensitive development should be prohibited.

Jet movements for April - June 2005



April-June 2005 jet flight tracks showing the airport's context and north-south split of flight tracks

# Canberra International Airport

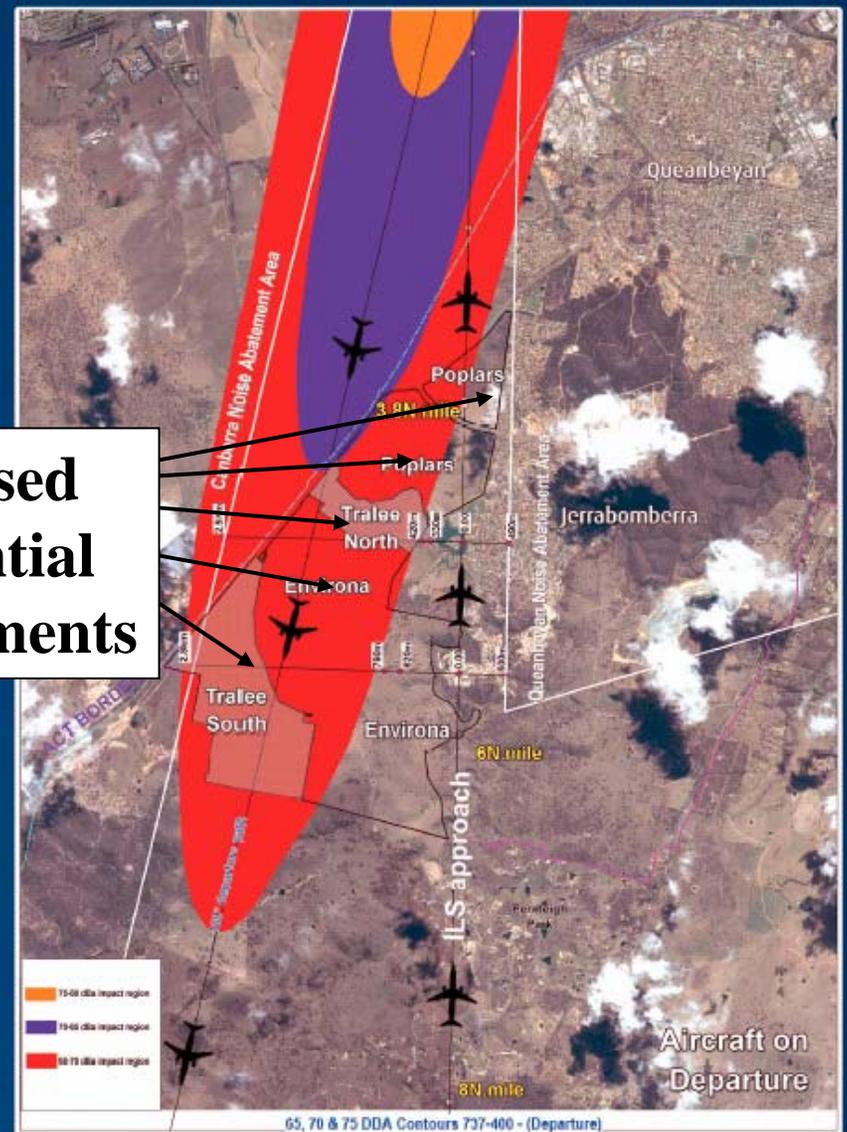
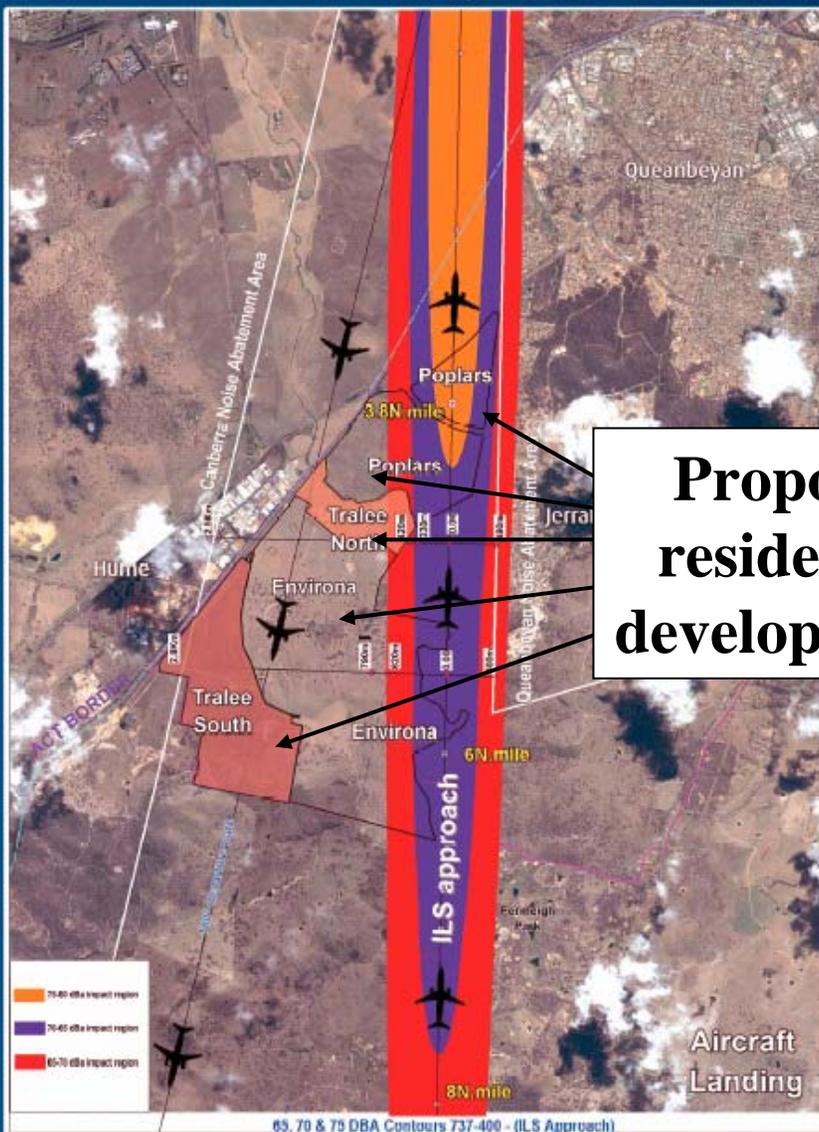


**High Noise Corridor - 767-300 arrivals & departures on runway 17/35 and DASH 8 arrivals on runway 30 dBA effects**

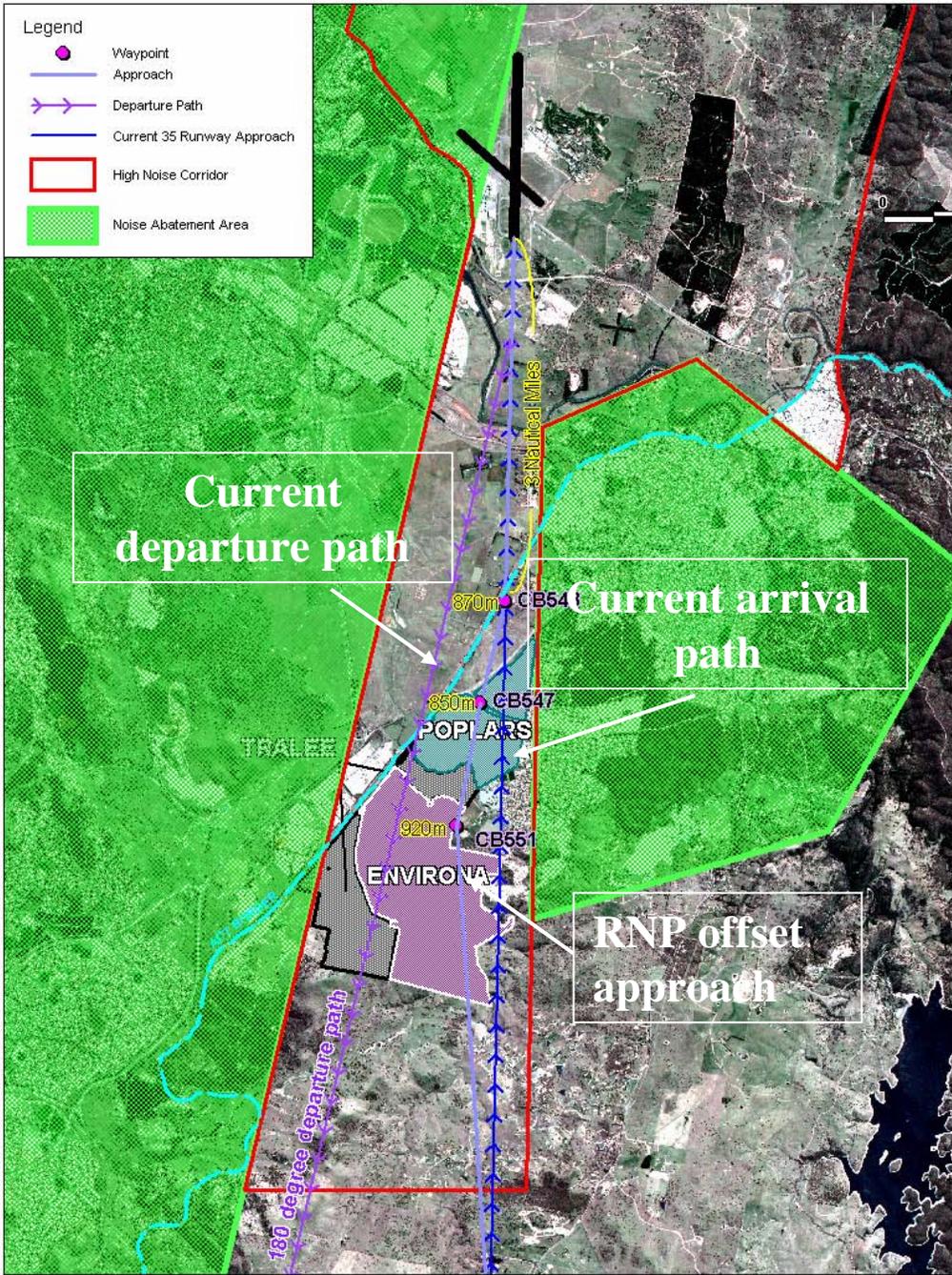
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Combined Single Event contours (65, 70, 75dBA) for a B767-300, plus Dash 8-300 arrivals on the cross runway significantly within the High Noise Corridor





However... development proposals in NSW threaten the legacy.



RNP offset approach from the south, avoiding direct overflight of homes and utilising Constant Descent Approach (CDA)

# Aircraft Noise – where to from here?

- Canberra Airport remains committed to protecting the community from adverse impacts of aircraft noise.
- The Airport will continue to oppose any houses in the High Noise Corridor
- Such development will engender community complaints and calls for the movement of flight paths, including noise sharing across the region.

# Aircraft Noise – where to from here?

- The Airport will continue to lobby Government, Industry and the Community for the legislative enactment of the High Noise Corridor.
- The Airport will continue to work with all stakeholders to invest in new technology to reduce noise, increase safety, reduce tracks miles (lower emissions), improve low-visibility performance and increase airport capacity.



**Thank You – Any Questions?**

# i) Aircraft Noise management history

- Prior to 1995, aircraft regularly overflowed Canberra suburbs and the neighboring NSW city of Queanbeyan.
- Strong political pressure led to the introduction in late 1995 of the Canberra and Queanbeyan 'Noise Abatement Areas'.
- Here jets can only fly if 5000ft above the ground and large props must be over 3000ft.

## ii) High Noise Corridor

- Suitable for noise-compatible land uses such as industrial and commercial land, agricultural and open-space use.
- Aligns with a major North-South arterial road network identified for further future upgrade into a major employment corridor.

## iii) High Noise Corridor consultation

- The April 2001 draft High Noise Corridor initially extended 10nm North and South of the Airport with a significant easterly component.
- Following extensive consultation with Government, Industry and the Community, the Corridor has been reduced to 8nm North and South and reduced to 3nm to the East.

## iv) Further noise abatement

- Notwithstanding the 1995 Noise Abatement Areas, the 600 homes within the High Noise Corridor (directly to the south of the airport) have successfully lobbied for further noise protection including:
  - Offset departure path to South avoiding homes
  - Preferred use of northerly arrivals and departures at night to avoid a key marginal seat
  - Agreement with night freight operators

## v) Aircraft Noise – future technology

- Canberra Airport remains committed to continuing to protect all residents of the region from the adverse impact of aircraft noise, with an emphasis on those 600 homes within the High Noise Corridor.
- Modern technology is allowing far greater flexibility in aircraft operations and flight paths offering some exciting opportunities.

## vi) Aircraft Noise – future technology

- Qantas, the major airline operator to Canberra, has teamed up with Seattle-based company Naverus to develop **Required Navigation Performance (RNP)** procedures for Canberra International Airport.
- These procedures, used by 737NG aircraft, will allow improved approaches for the north as well as an offset approach from the south avoiding most of the 600 homes at Jerrabomberra.

## vii) Aircraft Noise – future technology

- RNP approaches also utilise **Constant Descent Approach (CDA)** technology, reducing engine noise on approach.
- These procedures will allow improved approaches from the north as well as an offset approach from the south avoiding most of the 600 homes at Jerrabomberra.