

The Long Term Operating Plan
for Sydney (Kingsford Smith)
Airport and Associated Airspace—
Report Summary

Airservices Australia

Background and Recommendations

In March 1996, the newly elected Federal Coalition Government, in line with the stated policy '*Putting People First*', directed Airservices Australia to review current operating procedures and associated airspace and develop a Long Term Operating Plan for Sydney (Kingsford Smith) Airport.

Airservices Australia is a Government Business Enterprise and manages airspace and air traffic control requirements for 11 per cent of the world's airspace. Federal Transport and Regional Development Minister, John Sharp's direction gave Airservices Australia the ability to not only implement government policy but address a growing impasse which had been created from trying to balance continued high growth in air transport with the environmental impact caused by this growth on the Sydney community.

Under the *Air Services Act*, Minister Sharp issued the directive and then, in the letter of transmittal to the Airservices Board Chairman, provided Terms of Reference including consultation with the community, the aviation industry and interested parties.

A Policy Group, chaired by Airservices Australia, and including many interested parties, established the Sydney Air Traffic Management Task Force with representatives from the community, environmental groups, industry, military and government. This Task Force was further divided into four sub committees to examine specifically the areas of runway modes, environment, terminal control and en-route control.

Also in March, Mr Sharp announced the establishment of the Sydney Airport Community Forum. One of this group's principal tasks was to assist Airservices and the Task Force with community input into the review and planning process.

As a major component of public consultation more than 1500 submissions were received from individuals, industry, airlines, associations and others after an extensive advertising campaign.

Airservices determined that changes would need to be made to runway configurations and how and when these configurations are used to meet the terms of reference and provide the foundations of The Long Term Operating Plan.

In November, the Sydney Airport Community Forum and Airservices Australia presented 10 proposed runway configurations, associated flight paths and corresponding noise contours in a consultation process at six major public meetings throughout Sydney to obtain feedback from the community.

The processes employed by Airservices Australia in first reviewing and then developing a Long Term Operating Plan for Sydney Airport and associated airspace, including the consultation process and final recommended modes of operation are detailed in this report summary.

It is important to note that Airservices Australia has developed this proposed plan within the Terms of Reference and within its own responsibilities and area of expertise. During development of the plan and during the course of public consultation many issues including suggestions that the Airport be closed or building a new airport out in the Tasman Sea or issues concerning the site selection and construction of a second Sydney airport, were made which were either outside the Terms of Reference or not within Airservices Australia's areas of expertise or responsibility.

Adding to community awareness about aviation transport in general, were simultaneous investigations into a site for a second Sydney airport, plans and construction associated with Sydney's hosting of the 2000 Olympics and the sale of airports around Australia.

Sydney Airport at Mascot, has been used by aviation since 1919. It is the nation's international gateway for inbound and outbound tourism and is the aviation transport hub for domestic aviation services and for the airfreight of many goods and services including mail and perishable foods.

The growth of aviation transport worldwide is reflected in Australia. Significant changes have taken place at all Australia's major airports. At Sydney Airport a new runway, new terminal, aircraft maintenance and freight forwarding facilities, new air traffic control facilities and other airport improvements have been made to enable this growth to be met.

In 1995-96 there were 270,000 aircraft movements at Sydney Airport. About 15 per cent were international movements [more than half of all international flights into Australia], 40 per cent were scheduled domestic jet aircraft movements, 32 per cent were scheduled propeller aircraft movements, 11 per cent were general aviation movements and 2 per cent were helicopter movements.

Significant growth in aviation transport is projected to continue for the foreseeable future.

The Federal Department of Transport and Regional Development's forecasts of air traffic demand for the Sydney Basin indicate an average annual increase of 4.1 per cent in aircraft movements at Sydney Airport (including any other major airport if built) between 1996 and 2000. The forecasts, based on estimates of unconstrained demand, were prepared for the environmental impact study on a possible second major airport for Sydney.

Following extensive investigations and assessment of a wide range of options by the Sydney Air Traffic Management Task Force, Airservices Australia has developed the following recommendations. These recommendations take into account suggestions in submissions from the public and those which arose during consultations with community representative groups, the aviation industry and other interested parties.

Recommendations

Recommendation 1

Ten modes of operation, each defining relevant flight paths and runway configurations, should be available for use at Sydney Airport over the period of the Long Term Operating Plan.

The original modes under consideration were number 1 to 16. This numbering has been retained throughout the process, whether or not a particular mode was chosen for possible implementation. Runway Mode of Operation 14A, is a variation of Mode 14.

Proposed Runway Modes of Operation

Mode 1

The Curfew. Required by legislation. Uses only the main north-south runway (16R-34L). Departures and arrivals are over Botany Bay.

Mode 4

Departures to the south from Runway 16L.

(Heavy jet departures to the south from Runway 16R.)

Arrivals from the south on Runway 34L.

Mode 5

Departures to the south from Runways 16L and 16R.

Arrivals from the east on Runway 25.

(Heavy jet arrivals from the north on Runway 16R.)

Mode 7

Departures to the north-west, west and south-west from Runway 25.

(Heavy jet departures to the north and north-west from Runway 34L.)

Arrivals from the south on Runways 34L and 34R.

Mode 8

Departures to the west from Runway 25 and departures to the east and north-east from Runway 34R. (Heavy jet departures to the north from Runway 34L.)

Arrivals from the south on Runways 34L and 34R.

Mode 9

Departures to the north and north-west from Runways 34L and departures to the east and north-east from Runway 34R. Arrivals from the south on Runways 34L and 34R. Mode 10

Departures to the south from Runways 16L and 16R.

Arrivals from the north on Runways 16L and 16R.

Mode 12

Departures to the east and north-east from Runway 07.

Arrivals from the west on Runway 07.

(Heavy Jet departures to the north from runway 34L or to the South from runway 16R)

Mode 13

Departures to the north-west, west and south-west from Runway 25.

Arrivals from the east on Runway 25.

(Heavy Jet departures to the north from runway 34L or to the South from runway 16R)

Mode 14A

Departures to the south from Runways 16L and 16R.

Arrivals from the west on Runway 07.

(Heavy jet arrivals from the North on runway 16R)

Modes 9, 10, 12 and 13—should continue under the Long Term Operating Plan because of requirements dictated by weather conditions. Curfew legislation requires that Mode 1 will continue to be used during the hours of 2300 to 0600 daily.

Modes 4, 5, 7, 8 and 14A should be included in The Long Term Operating Plan to maximise flights over water and fairly share unavoidable aircraft noise over residential areas

Recommendation 2

The flight paths associated with the recommended modes of operation and shown in maps accompanying each mode, be adopted as the flight paths to be used in the Sydney Terminal Area (within 45 nautical miles of Sydney Airport) for the period of the long Term Operating Plan.

Recommendation 3

Discontinue those current noise abatement requirements which mandate changing to, or continuing the use of, runways 16L and 16R for arrivals and departures (in a southerly direction) when there is up to 5 knots of downwind.

Recommendation 4

Adopt new runway selection criteria to:

- Give preference to over-the-water operations (Mode 4) to minimise residential overflights.
- Restrict the dedicated use of the east-west runway (Modes 12 and 13) to circumstances when weather requires use of these modes.
- Interchange use of the other modes to ensure a fair sharing of unavoidable aircraft noise subject to weather and traffic demands.

Recommendation 5

The modes of operation should be changed throughout each day, when traffic and weather conditions permit, to provide respite from noise affecting residents in different areas.

Changes should not be more frequent than every four hours unless required for operational and or weather reasons. The preferred times for changing modes would be 1030, 1600, and 2000.

Other times when modes could or must change are:

- end of Curfew (Mode 1)
- around 0730 on weekdays to enable parallel operations to handle the peak traffic demands.
- when weather changes dictate.
- as traffic delays increase and a change of mode will better sustain the projected traffic levels.
- in preparation for Curfew (Mode 1).

Recommendation 6

Because of the complexity of the proposed changes and the time needed to optimise the capacity of the over-water mode and the modes using three runways, initially operations under the Long Term Operating Plan should not include Mode 8. Mode 8 should be included in the Long Term Operating Plan if experience indicated that it would contribute to the plan's objectives. While it is desirable that Mode 8 should not be used in the initial stages, documentation covering its operational requirements and flight paths would be included in the implementation plan. This would allow its use later if monitoring and operational experience indicated that adjustments were required to modes and such adjustments could not be achieved satisfactorily with only the other nine modes.

Recommendation 7

A runway selection procedure should be introduced to facilitate the fair sharing of the impact of aircraft noise.

Recommendation 8

Improvements to air traffic control equipment as identified in this report or during implementation should be carried out as a matter of priority so that the projected short-term capacities of each mode can be realised.

Additional taxiways should be built to accommodate projected air traffic growth and maintain the noise-sharing benefits gained from the new operations under the Long Term Operating Plan.

Recommendation 9

An Implementation and Monitoring Committee should be established to oversee implementation of the Long Term Operating Plan and report on its effectiveness. Membership should include two community representatives nominated by SACF, the aviation industry, the Federal Airports Corporation, the Civil Aviation Safety Authority, and the Department of Transport and Regional Development. The committee should be chaired by the Manager Operations, Sydney District, Airservices Australia, and report through Airservices' Chief Executive to the Minister.

Recommendation 10

Flight corridors to the south should be repealed to allow alternative departure tracks from Runway 16R which would enhance the capacity of simultaneous opposite direction parallel operations over Botany Bay by allowing left turns through Botany Bay Heads after departure from Runway 16R to achieve separation with traffic approaching to land on Runway 34L. The current Air Navigation (Aerodrome Flight Corridor) regulations require jet aircraft to fly within, and not deviate from, the appropriate designated flight corridor for a specified runway. This means jet aircraft departing from runway 16R with a left turn through Botany Bay heads would breach the current regulations.

Recommendation 11

It is recommended that on-shift management of procedures and staff resources be enhanced to satisfy the objectives of the Long Term Operating Plan, focusing authority and accountability of Air Traffic Services staff to a core position. It is intended that the new function will result in improved overall coordination and responsibility for interaction between the tower and terminal area workplaces.

Recommendation 12

Consideration be given to allowing aircraft departing 16R during the curfew to turn left after departure and track over water through Botany Bay heads to provide separation assurance with arriving traffic and enhance safety.

Recommendation 13

That a study be undertaken to assess when aircraft require to operate on the long runway to provide the Implementation and Monitoring Committee with accurate data to adjust the plan in the interests of maximising respite periods.

Recommendation 14

That the Department of Transport and Regional Development consider the impact of cluster scheduling of airline flights on the availability of the Long Term Operating Plan modes.

Recommendation 15

That, where traffic levels and disposition allow, Runway 34L be the preferred runway for arriving traffic when runways in that direction are in use.

Recommendation 16

Following concerns expressed during the public consultation process it is recommended that the West Pymble locator beacon be removed from service.

Recommendation 17

That arrival flight paths to the north of the airport (known as the ‘trident’ refer Chapter 4 and 5) be further refined during the implementation phase to reduce the concentration of air traffic on the Runway 16 localiser tracks.

Recommendation 18

That consideration be given to the provision of an Instrument Landing System on Runway 25 to enhance the availability of the preferred operating modes.

Recommendation 19

That noise abatement climb procedures be standardised for all runways at Sydney Airport and that an assessment be made to determine whether the International Civil Aviation Organization (ICAO) Procedure ‘A’ or Procedure ‘B’ be mandated for all jet operations.

Recommendation 20

That, as part of the implementation process, consideration be given to the proposal that propeller aircraft departures on runway 34L be commenced no further north than Taxiway B10.

Recommendation 21

That, following the implementation of new arrangements, ANEI contours be produced on a quarterly (and cumulative—up to 12 months) basis.

Recommendation 22

That, after 12 months, stable operation an ANEF be produced in order to provide business and the community with appropriate data for long term land use planning.

Recommendation 23

That the Implementation and Monitoring Committee further progress equitable noise sharing by refining:

- an agreed set of criteria and target values;
- developing a practical and publicly accountable monitoring process; and
- establishing an agreed mechanism for informing Air Traffic Services of current outcomes in relation to target values.

Recommendation 24

That there be an appropriate process established for keeping the community informed on the distribution of noise.

Recommendation 25

That the location of the 12 permanent noise monitoring terminals be reviewed for their appropriateness in light of the new long term operating arrangements.

Recommendation 26

That, as required, a program of short term deployment of portable noise monitors be developed to provide data to residents in areas where significant problems are identified.

Recommendation 27

That a formal safety analysis of the proposals for the Long Term Operating Plan be undertaken prior to implementation and that an independent review of safety issues by an independent third party with international expertise be undertaken.

Recommendation 28

That detailed simulation and evaluation of alternatives to the departure track to the south on the 163 VOR radial be undertaken to determine the benefits of a change to Cronulla residents.

This should include:

- Initial departure tracks between runway heading and the 163 VOR radial
- Departure on the 163 VOR radial with a left turn at 5 DME to intercept 150 VOR radial.
- Southern jets departing from Runway 16L and tracking on 126 VOR radial through Botany Bay heads.

Recommendation 29

That aircraft tracking from Sydney to Bankstown during the curfew period, 2300-0600, be tracked at 3000' via non populous areas of the Royal National Park and Holsworthy military areas to reduce noise nuisance to suburbs to the south west of the airport.

Recommendation 30

That further simulation and development of practical departure tracks to the east off Runway 07 and 34R be undertaken to establish a track that is not the reciprocal of the Runway 25 arrival track.

Recommendation 31

That Airservices Australia and the Australian Military Forces enable implementation of the in principle agreements for changes to military airspace surrounding Sydney through the Air Coordinating Committee.