ANEF Checklist – Version (August 2022)

Airport	
Date	

Airservices has the responsibility to endorse airport ANEF's for technical accuracy. In order to perform this function there are certain criteria that the Airport ANEF needs to meet before the endorsement process can proceed. It is the decision of Airservices as to when an ANEF is ready for the endorsement. The following checklist is a pre-lodgement application which airports need to compile and consider in order for the endorsement process to commence.

Section A: -

Item	Item	Assumptions Details
A1	Airport description (Existing/Future)	Provide existing and/or future layout of: • Runway/s And where applicable: • Taxiways, Nav aids on airport, Terminals
A2	What sort of ANEF; Standard (20 year) ANEF, Long Range ANEF or Ultimate Capacity ANEF	1. Standard (20 year) ANEF (include year), or 2. Long Range ANEF (include year), or 3. Ultimate Capacity ANEF
A3	Composite ANEF	What is the rationale for using a composite ANEC? How many composite ANEC are used? If composite ANEF provide the scenarios for each component (ANEC)
A4	Runway and Helipad co-ordinates	Name of the organisation and the person who takes responsibility for these. If the study incorporates a runway extension include co-ordinates for current and the extended runway. Are there displaced thresholds and/or runway intersection departures?
A5	Noise model software utilised and version number	Airservices has migrated to AEDT 3e (SQL Server 2017), please discuss with Airservices if previous versions are going to be submitted
A6	AEDT Aircraft type selection	Name of the organisation and person who takes responsibility for selection of aircraft types and their numbers. Please provide the following: • List of current aircraft types currently using the airport and the numbers for each type • List of modelled aircraft types and the numbers for each type • List of the aircraft with their modelled (AEDT) type and the numbers for each type (The dot points above could be provided within a table). • Where user profiles have been used for particular AEDT aircraft types, identify how they were derived.

A7	Source for forecast/movement data	Name of the organisation and person who takes responsibility for forecast including the day/night split.

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What are the target areas of growth for the airport (eg international, domestic, jets, training etc)

Is the forecast growth less than capacity study?

Modelled growth for;

- Passengers by destination
- GA
- Helicopters
- RPT

A8	Airport Capacity Study	Have the following factors been included:

Have the following factors been included:

- Methodology used to generate the airport capacity
- Runway configuration, including max movement numbers for each mode of operation
- Taxi way configuration
- Reduced capacity due to weather
- Existing legislation (Cap, curfew)
- Existing NAP
- Existing fly neighbourly agreements

Potential sources are:
1. FAA, 1983 *Airport Capacity and Delay*, FAA Advisory Circular AC 150/5060-5, Updated January 1995.
2. Ashford, N. & Wright, P. H., 1992. *Airport Engineering* 3rd ed., New York, John Wiley & Sons).

A9	Runway usage	Name of the organisation and person who takes responsibility for the runway usage.

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Breakdown for each runway/operation mode:

- By day and night
- By aircraft type
- By operation

Breakdown for the forecast movement number by hour of the day.

A10	Modelled Tracks	Name of the organisation and person who takes responsibility for the modelled tracks.
		Provide:
		• Source for the historical tracks used in the model. Are there flight paths in the historic data that do not appear in the model? If so, why?
		• Source for the newly created tracks in the model
		• Operationally suitability of tracks used in the model
		• Track Maps with modelled track provided.
		• List of aircraft assigned to which tracks
		• Nav aids for aircraft using the airport over the forecast period (ILS, RNP, VOR etc)
		• Justification for the track spread used.
		• Allocation of Movements to Modelled Tracks. (What is the methodology for the allocation? Is it based on destinations, directions, etc? Is it graphically based using Radar Data?
A11	Meteorological Parameters – temperature, headwind and humidity / Airport Weather (AEDT)	Source for weather data
		Logic for selecting the average values used in the model
A12	Circuit operations	If the study includes circuits need to provide:
		• Left and right hand circuits
		• Separate high, medium and low performance circuits
		• Spread used for circuits
		• For uncontrolled airspace, are circuits derived in accordance with CAAP 166-1(1): Operations in the vicinity of non-towered (non-controlled) aerodromes?
A13	Terrain	Is terrain included?
		If not, what is the justification for not including terrain? Has this justification been tested?
A14	Stage lengths	List of destination by aircraft type and the stage length used
A15	Balancing of operations	What efforts have been made to balance operations (eg arrivals=departures)
A16	AEDT Error/warning messages	A copy of the error/warning messages and/or log files

A17	ANEF Metric Setup	Has the ANEF Metric been setup with the following correct settings:

- Weightings – 1 x Day (07:00-18:59), 4 x Night (19:00 – 06:59)
- Time Average Constant – 88 decibels
- Frequency Type - P-Weight
- Metric Type - Exposure

Figure 1: Example setup of ANEF Metric in AEDT

A18	ANEF Atmospheric Absorption Type	Has the 'SAE-ARP-5534' Atmospheric absorption type been selected?

A19	Aircraft Noise Calibration	What efforts have been made to calibrate the noise model with appropriate aircraft noise data?

A20	Attribution Table	Is there a table setup summarising the ANEF assumptions sources and attribution?

A21	ANEF chart Features	Does the ANEF chart contain the following:

- Title
- Terrain statement
- Co-ordinate system used
- Scale is shown
- North arrow is shown
- 20, 25, 30 and 35 contour are shown.
- Contours are clearly distinguishable
- Rounding disclaimer is included
- Issued date
- 20 ANEF contour Shown as a broken line
- Base map details are clearly distinguishable from other features of the map
- Aircraft movement table
- Building site table (AS2021:2015)
- Latest endorsement signature block with Airservices disclaimer

Information regarding the consultation.

Some airports prefer to conduct the consultation after technical aspects of the model have been approved. The requirements for the airport consultation with state/territory and local government are detailed in the list below.

Ref	Item	Detail
B1	Consultation package	A copy of the list of assumptions that were provided as part of the consultation
B2	State/Territory Government consultation	• Name of the appropriate state/territory body which the consultation was made. • List the queries raised or comments made by each. • For each query or comment give the airports actions/responses
B3	Local government consultations	• List of all local government municipalities that are within the ANEF 20 contour • List the queries raised or comments made by each. • For each query or comment give the airports actions/responses