

The Airways logo consists of the word "AIRWAYS" in a bold, white, sans-serif font. To the left of the text is a white arrowhead pointing to the right. The background of the entire page is a low-angle shot of an airplane's wing and engine against a bright blue sky with scattered white clouds. A large, abstract geometric graphic is overlaid on the left side, composed of various triangles in shades of blue, white, and green.

making your world possible

SAFE SKIES TODAY AND TOMORROW

▶ AIRWAYS PRICING FRAMEWORK

Effective 1 July 2022

Airways is committed to providing services that meet the changing needs of our customers and welcomes your input into the future evolution of this Pricing Framework.



Contact our Customer Team:  
[feedback@airways.co.nz](mailto:feedback@airways.co.nz)  
[www.airways.co.nz](http://www.airways.co.nz)

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## 1 ► Who We Are

As a State-Owned Enterprise (SOE), Airways is wholly owned by New Zealand Government. We are managed by an independent Board of Directors, and our aim is to deliver world class services and real value to customers; we do this by having skilled and committed staff and investing in leading technology solutions.

We're proud of Airways' safety and operational performance which consistently ranks amongst the top Air Navigation Service Providers globally. We believe our continuous improvement approach to air safety and operational efficiency is what makes us industry leaders. We recognise the importance of aviation to the NZ economy.

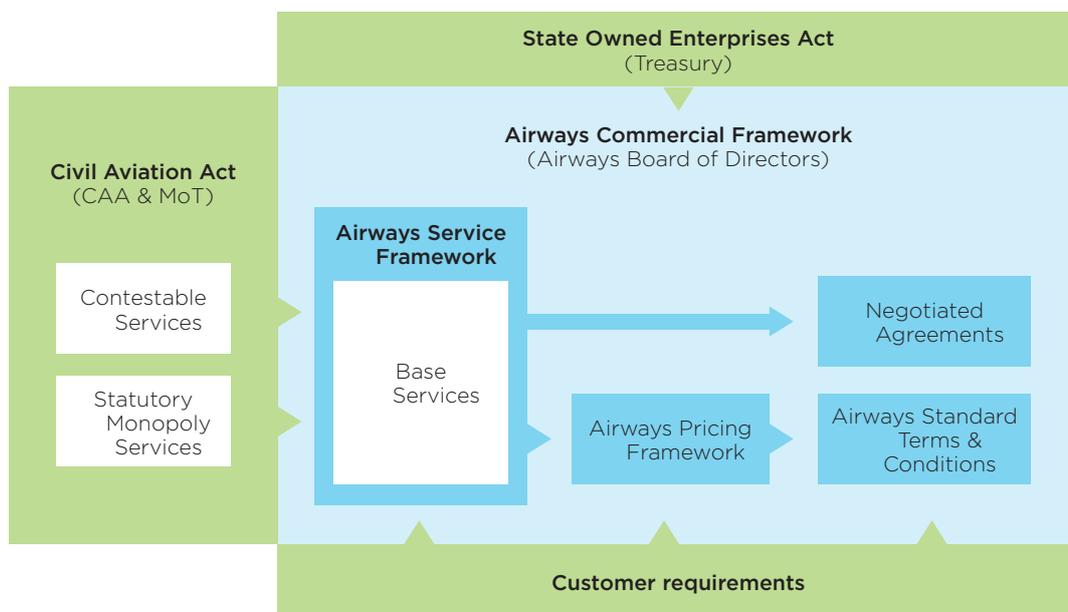
We are committed to working with our aviation customers in enabling an efficient Air Traffic System. We recognise that aviation has a key environmental impact, and we continue to work with our customers to reduce fuel burn and carbon emissions.

Safety is at the heart of everything we do. Our primary role is to provide a safe and efficient air traffic service. Our objective is to constantly achieve zero loss of separation incidents.



## 2 Context

### 2.1 Our Commercial Framework



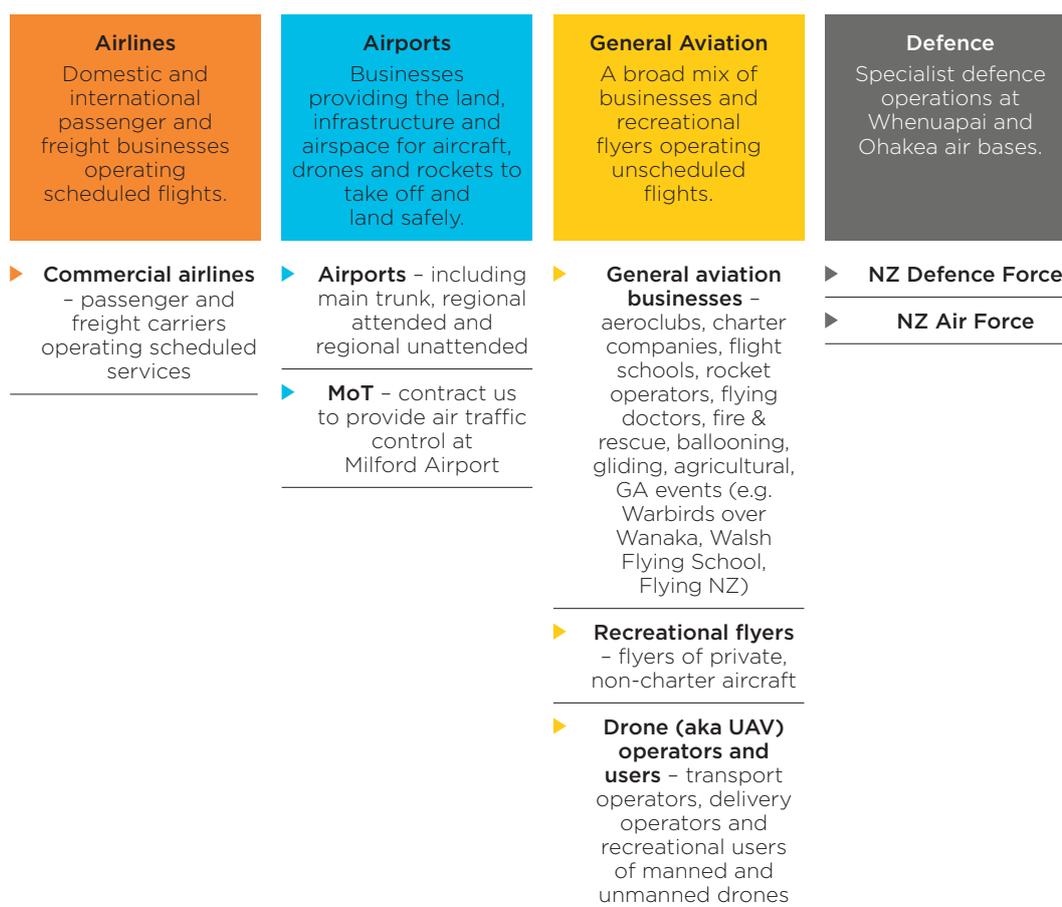
We are required to operate in accordance with the State Owned Enterprises Act, which in summary is to be profitable and efficient, be a good employer, and exhibit a sense of social responsibility. We are also regulated by the Civil Aviation Act (hereon, the CA Act).

Airways is committed to its journey to customer centricity, with our Commercial Framework serving as a platform for understanding and maintaining line of sight to what our customers value. It comprises the following:

- ▶ **Airways Service Framework** – sets out Airways Base Services and specifies the parameters and performance expectations of each service.
- ▶ **Airways Pricing Framework** – sets out the methodology that Airways uses to calculate and allocate the cost of providing its Base Services
- ▶ **Airways Standard Terms & Conditions** – sets out the contractual terms on which Base Services are offered
- ▶ **Negotiated Agreements** – sets out the terms and conditions agreed between Airways and its customers for provision of services

## 2.2 Our Customers

Airways has more than 4,000 customers of its air traffic services, comprising all modes of flying. Our customers fall into four segments as follows:



Airways' non-customer stakeholders include:

- ▶ **Passengers**, who are our customers' customer
- ▶ **Pilots** working for our general aviation business or commercial airline customers
- ▶ **MetService**, who is a strategic supplier to Airways<sup>1</sup>
- ▶ **Industry working groups**, e.g. New Southern Sky, Drone User Group
- ▶ **Stakeholders** who have a non-customer interest and influence over Airways business, including: Civil Aviation Authority (CAA)<sup>2</sup>, Ministry of Transport, Treasury, ALPA, PSA, AMEA, industry associations representing our customers (e.g. BARNZ, NZAA, IATA, ACAG, AOPA, QMUG, Aviation Federation NZ, Aviation NZ), stakeholders of our customers (e.g. Mayors, Councils, business chambers), the public

1. Noting that MetService procures non air traffic services from Airways to support the supplier relationship.

2. Noting that CAA procures non air traffic services from Airways International Limited (AIL) to enable execution of its regulatory role.

## 2.3 Our Base Services

The following table sets out Airways Base Services:

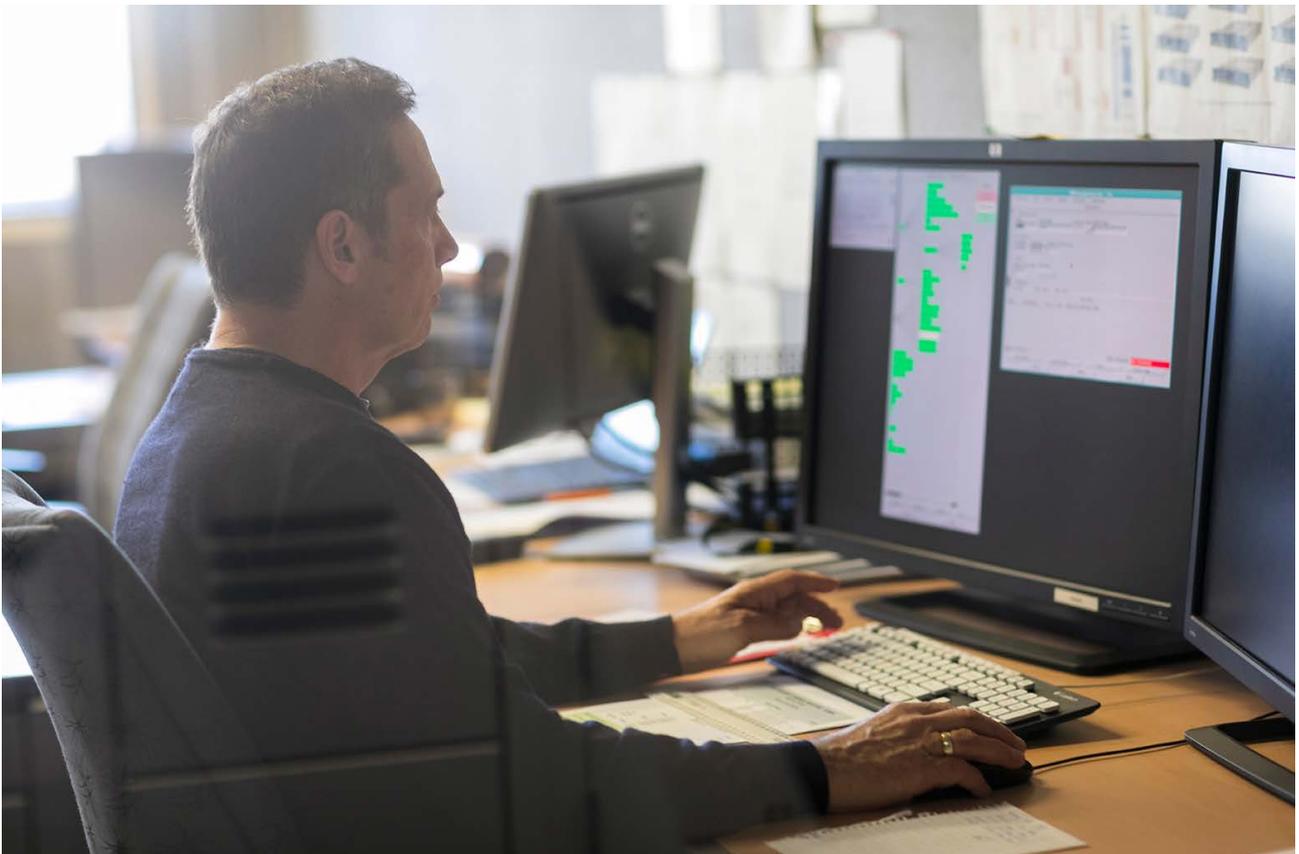
<b>Approach Service</b> (includes Flight Information Service and Alerting)	Services for arriving and departing aircraft, electronic navigations aids at attended and some unattended aerodromes	CA Rules 171, 172, 173, 174, 175
<b>En-route Domestic/ Oceanic Service</b> (aka Area Control Services – includes Flight Information Service and Alerting)	Control and navigation services for aircraft en-route between aerodromes, domestically and internationally	CA Rules 171, 172, 173, 174, 175
<b>Flight Information Service in Uncontrolled Airspace</b>	Provision of information to aircraft in uncontrolled airspace	CA Rules 171, 172, 174, 175
<b>Alerting Service in Uncontrolled Airspace</b>	Provision of alerting service to aircraft in uncontrolled airspace	CA Rules 171, 172
<b>Aerodrome Air Traffic Management Service</b> (includes Flight Information Service)	Control of aircraft arriving to / departing from an aerodrome	CA Rules 171, 172, 174, 175
<b>Aerodrome Visual Navigation Aid Service</b>	Provision and maintenance of airfield lighting and/or paint markings at airports	CA Rule 139

A detailed description of the above services can be found in *Airways Service Framework (August 2021)*.

## 2.4 Future Service Delivery

The technology to provide air traffic services will change significantly over the next 10 years. Airways' navigation and surveillance systems comprise a national network of ground-based equipment. Traditional ground-based systems will be progressively replaced with satellite-based technology, providing information directly to an aircraft's cockpit as well as to the air traffic controller. This technology will provide a greater level of flexibility enabling:

- ▶ fuel savings due to more efficient flight profiles
- ▶ capacity enhancement in controlled airspace due to more efficient management of the airspace
- ▶ on time performance benefits to Airways' customers due to improved scheduling and management of aircraft.



## 3 Pricing Principles

Airways Service Objectives are:

- ▶ a modern, fit for purpose aviation system that delivers safety and efficiency
- ▶ alignment with the aviation industry's commercial imperatives
- ▶ productive relationships with our customers and stakeholders
- ▶ closer alignment between customer relationships and the provision of Airways services
- ▶ frameworks that incentivise innovation and quality outcomes.

To guide the ongoing development of Airways' Pricing Framework, we have developed a set of pricing principles. These principles will be used to guide future reviews and further development of our Pricing Framework:

- ▶ **Be predictable, consistent, and durable:** be predictable and consistent in their application across services and between customers, and durable to variations in circumstances and business conditions over time.
- ▶ **Be transparent and practicable to implement:** be transparent to customers and not impose large transaction costs on customers or Airways.
- ▶ **Reflect costs:** reflect the costs that the service and associated customer activity give rise to.
- ▶ **Take account of differences in the value customers derive from Airways' services:** customers who derive greater value from ANS should contribute a greater share of the fixed or common costs to provide ANS.
- ▶ **Be commercially sustainable:** provide sufficient revenue for Airways to earn a commercial return.
- ▶ **Encourage Airways to innovate and operate efficiently:** provide Airways with incentives to innovate in the supply of existing and new services, to operate and invest efficiently and improve productivity and for customers to benefit over time from such innovation, productivity improvements and efficient operation.
- ▶ **Comply with relevant regulations:** be compliant with relevant legislation and regulation including, but not limited to, aviation, competition and financial regulations.

## 4 Pricing Cycle

Airways pricing cycle is three pricing years. Each pricing year runs from 1 July to 30 June.

This document sets out Airways Pricing Framework for the pricing cycle 1 July 2022 to 30 June 2025.

Pricing can be adjusted in any of the pricing years comprising the current pricing cycle in accordance with the risk-sharing mechanism, and if a within-cycle review is triggered.

### 4.1 Within-Cycle Review

Airways may trigger a review of this Pricing Framework before the end of the current pricing cycle if one or more of the following events occur:

- ▶ Material change to the scope of Airways' network (e.g. addition or removal of an airport)
- ▶ Legislative change (including change to any statute, decree, ordinance, rule, regulation, treaty, or other legislative measure) that has, or will have, a material and adverse effect upon Airways' provision of the Airways services (or upon costs associated therewith)
- ▶ Material (unplanned) service enhancements
- ▶ Any other circumstance that has, or will have a material and adverse effect on Airways, its assets, liabilities, or financial position (including profits or losses) not being a circumstance that could reasonably have been avoided by prudent management action

If a price review is initiated, Airways will consult with stakeholders to reset prices to take account of the trigger event.

### 4.2 Price Reset

Airways may reset its prices:

- ▶ when the forecast for the following pricing year indicates that revenue will lie outside a range of +/- 2% of the target pricing revenue (pricing years two and three only), or
- ▶ when a within-cycle review of the Pricing Framework has been triggered, or
- ▶ to implement changes arising from three-yearly Pricing Framework review.

Prices are reset in accordance with the following process:

From 2 April	Airways undertakes a traffic volume forecast for the next pricing year based on airlines' published schedules as of 1 April.
30 April	Airways shares its forecast with customers and invites them to provide additional information about their schedule and fleet for Airways consideration.
15 May	Deadline for additional customer information.
From 16 May	Airways considers additional customer information and revises its financial forecast if necessary.
1 June	Airways publishes its final forecast and revised prices, along with any variation to the <i>Airways Standard Terms &amp; Conditions</i> .
1 July	Revised prices take effect.

# 5 ► Setting Revenue

## 5.1 Building Block Method

Airways revenue requirement is calculated using a cost-based building block method.

The building block method is commonly used to set prices in regulated industries and is based on the amount of revenue required to cover the efficient costs of Base Services.

### 5.1.1 Base Service Revenue

Base service revenue is the revenue received for delivery of the services set out in *Airways Service Framework (August 2021)*. Base revenue is calculated as the sum of forecast operating costs, depreciation, tax and capital charge.

Airways uses the Economic Value Added (EVA) framework to calculate operating expenditure, depreciation, capital charge and tax. EVA is a form of the cost building blocks methodology.

The capital charge component is calculated by multiplying the value of Airways' asset base by an estimate of Airways weighted average cost of capital (to be set at the start of the pricing cycle). The value of Airways' asset base is determined using the existing asset values carried forward from the previous pricing cycle, adjusted annually for capital expenditure and depreciation.

This excludes work in progress (WIP) until it is forecast to be commissioned. Until the asset is commissioned, capital expenditure costs are held in a works-in-progress account, which is rolled forward at the weighted average cost of capital.

### 5.1.2 The Relationship Between Overall Revenue and Unit Prices

The EVA methodology is used to set the level of overall revenue. Cost Allocation Policies are then applied to the overall revenue amount to identify the costs that need to be recovered from each service. Volume forecasts for each service for the pricing cycle are then used to arrive at unit prices.

### 5.1.3 Risk-Sharing and Incentive Mechanisms

To enhance the building blocks model, risk-sharing and incentive mechanisms are included to enhance Airways ability to:

- respond to uncertainty in economic conditions over the pricing cycle (risk-sharing), and
- encourage efficiency (see section 5.2) and innovation (see section 5.3).

These mechanisms are outside of base revenue.

## 5.2 Risk-Sharing Mechanism

During the pricing cycle there may be unforeseen changes in the volume of air traffic and the environment in which Airways operates. Airways' cost structure is not flexible in the short term to fluctuations in volumes.

While exposure to minor volume fluctuations is accepted as normal business risk, to address the issue of large fluctuations in volume, Airways operates a volume risk sharing mechanism based on variations in base revenue from the forecast.

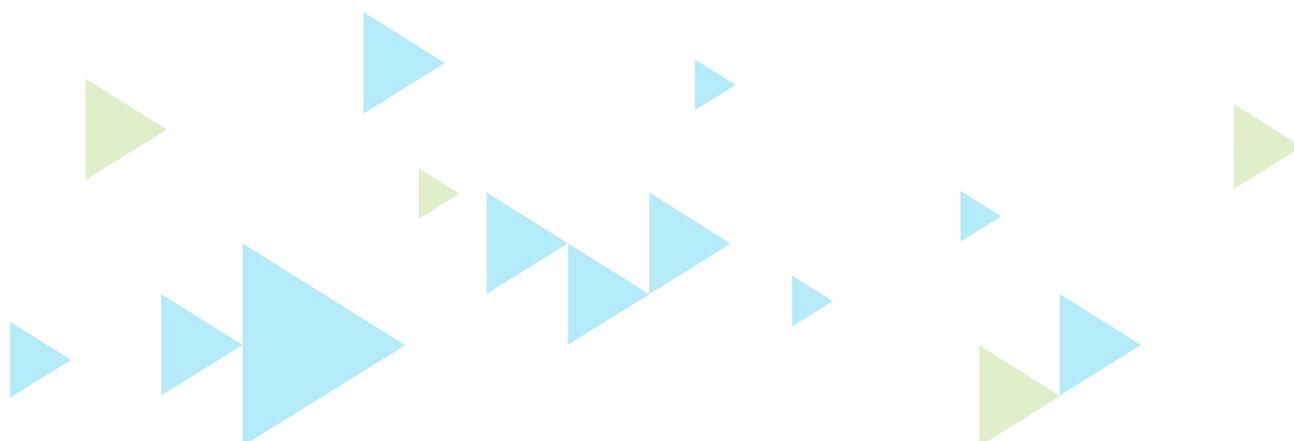
Changes in base revenue are used as a proxy to changes in volume. Base revenue is determined through the cost building blocks (base revenue excludes any adjustment for risk sharing or efficiency and innovation mechanisms). Prices are determined from base revenue and expected demand volumes (i.e., the forecast volume and weight of traffic). Any difference between base revenue earned in a pricing year and the forecast is, therefore, a result of unexpected variation in volumes.

Prices will be adjusted when base revenue fluctuates significantly from the original forecast in pricing years two and three.

The risk sharing mechanism is based on forecasted airline schedule information. If the forecast for the following pricing year indicates that revenue will lie outside a range of +/- 2% of the target base revenue, then a Price Reset will be triggered for that following pricing year.

Any adjustment is made to total revenue in the pricing year following the unexpected variation in volume, when prices are set for the next pricing year. The adjustment is made for one pricing year.

The events that may trigger a Price Reset are set out in section 4.1.



## 5.3 Efficiency and Innovation Mechanisms

To encourage cost efficiencies, innovation and improved customer outcomes, the building blocks approach is enhanced by the following incentive mechanisms:

- ▶ Incentives to reduce cost
- ▶ Incentives to enhance services
- ▶ Incentives for innovation of services

Incentives are identified at the start of each pricing cycle, informed by Airways 10-year plan, to incentivise Airways to reduce its cost base relative to forecasts and to introduce service and technological enhancements that are important to customers.

### 5.3.1 Incentives to Reduce Cost

Airways will carry forward into the next pricing cycle the cost reductions achieved from material and separately identifiable cost reduction initiatives in the preceding pricing cycle, subject to this carry-forward amount not exceeding 50% of the value of these ongoing cost reductions (in present value terms). Airways will identify separately these carry-forward amounts in its cost building block model and will also verify that the amounts being carried forward do not exceed 50% of the value of these ongoing cost reductions.

Prior to carrying forward any amounts under this mechanism Airways will consult with its customers as part of the next Price Reset. Where feasible Airways will also consult its customers prior to undertaking such cost reducing initiatives. The following details will be provided as part of these consultations:

- ▶ the amount and nature of the investment
- ▶ the level of savings
- ▶ the amount to be carried forward for pricing purposes
- ▶ the timeframe of the initiative

Progress updates on such initiatives will form part of the annual performance reporting, covering at least the above points. Once the carry-forward period is over, specific reporting on the initiative will stop and all costs and savings will become part of the base costs.

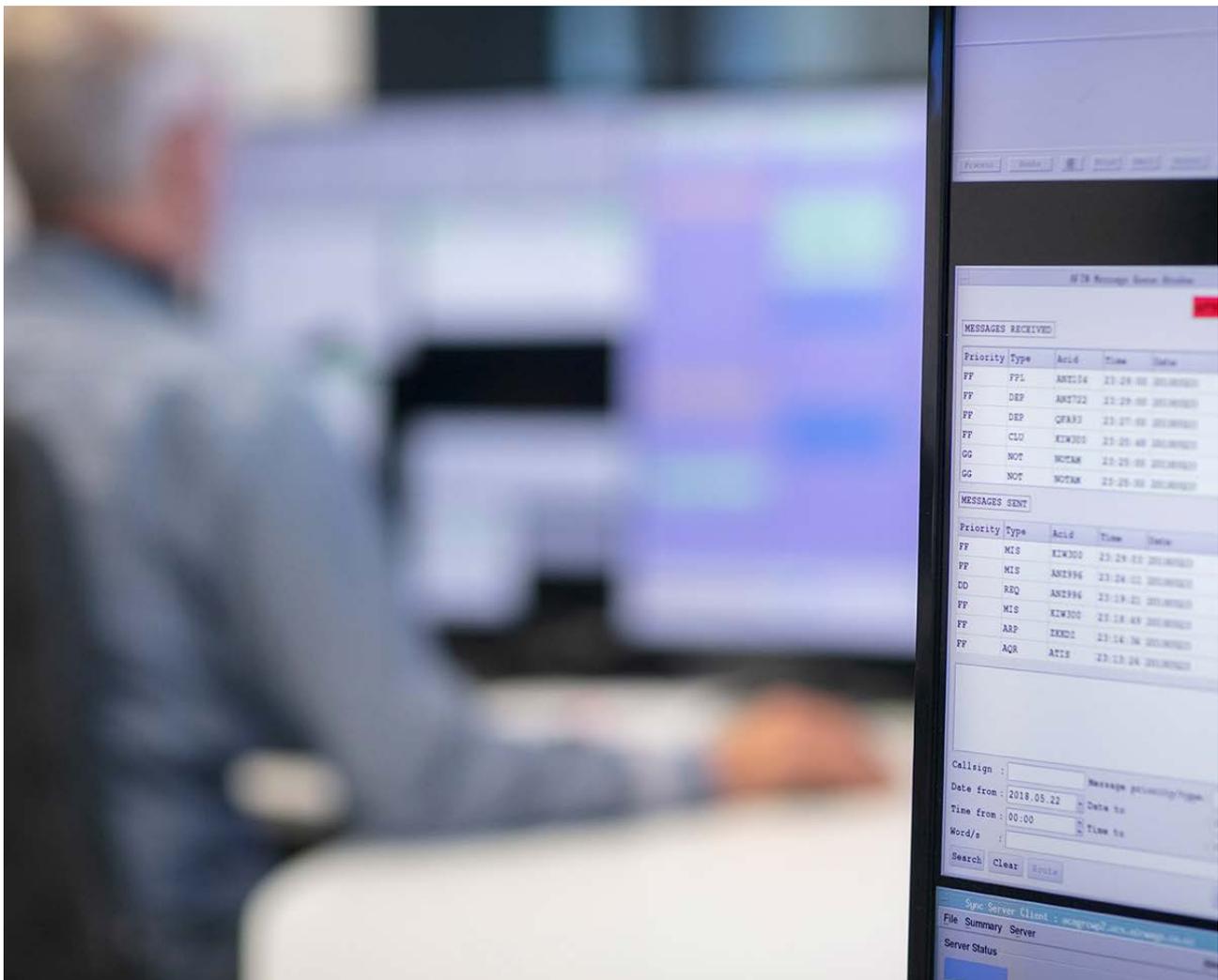
### 5.3.2 Incentives to Enhance Services

To encourage Airways to actively explore possible service enhancements that customers value, the price of service enhancements is agreed by negotiation with those who will be paying for the enhancements.

In addition, Airways agrees a scorecard to identify and track performance measures of importance to customers. Once these measures are established, financial incentives to improve performance will be considered.

### 5.3.3 Incentives for Innovation of Services

To encourage Airways to actively explore innovation of its services by developing entirely new services, such services are excluded from Base Revenue, and are instead priced on a commercial basis by direct negotiation with a customer.



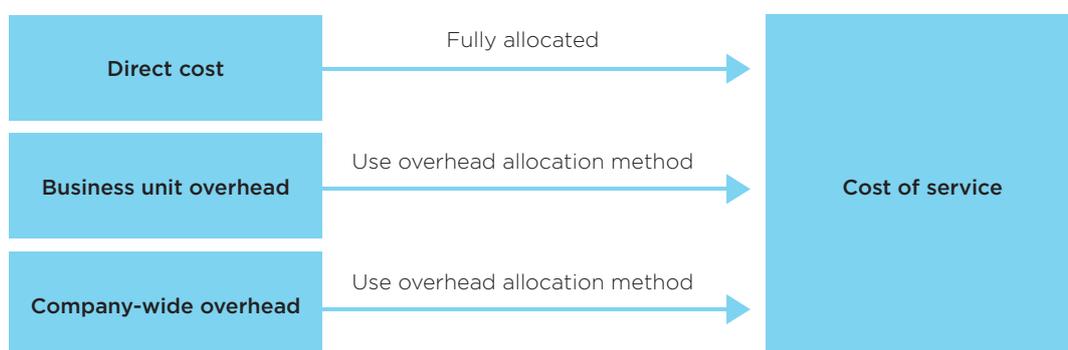
## 6 Revenue by Service and Location

Once the overall revenue level has been set using the EVA framework, the amount of revenue to recover from each service and location is derived. This is done in two steps.

1. The cost of providing each service is calculated by applying Cost Allocation Policies to the overall revenue figure.
2. Airways uses a mixture of location specific and service cluster pricing to best suit the characteristics of each service.

### 6.1 Cost Allocation Policies

Airways determines the costs required to deliver a service based on the direct costs of providing it (including the cost of capital employed), and a share of overhead costs. Costs are identified as being either directly attributable to a service or location, or part of overheads (Step 1). The overhead costs are then allocated to a specific service at an individual location (Step 2).



## Step 1: Identify Costs in Each Cost Pool

Costs are identified as being in one of three cost pools:

1. **The direct cost pool.** Direct costs are defined as those that could be avoided if a particular service, or a service at a particular location, were not provided. Where direct costs relate to a service where Airways is the sole provider by statute, and to a service that is contestable, the costs that would be avoided in relation to the services where Airways is the sole provider are identified first. Any remaining costs are treated as direct costs of the contestable service. The services where Airways is a sole provider are costed first because Airways considers these to be the foundation of its ANS business.
2. **Business unit overhead pool.** Business unit costs are defined as those costs that can be avoided if none of the services provided by a business unit are supplied. Business units include Towers, Terminal, En-route and Oceanic units.
3. **Company-wide overhead pool.** Company-wide costs are defined as all other costs (i.e., those that are neither direct costs nor business unit overheads) that are required to provide ANS services on a standalone basis. The incremental costs to Airways of providing other services (i.e., services not covered by this Pricing Framework) are not included in this overhead pool.

## Step 2: Allocation of Overhead Cost Pools

Terminal business unit overheads relate to delivering Approach Services. These overheads are allocated to Approach Services based on the relative weight of aircraft landed at each airport (with weight being used as a proxy for the value that customers derive from the service. Tower business unit overheads relate to delivering Aerodrome Traffic Management Service. These overheads are allocated to the Aerodrome Traffic Management Service based on relative weight of aircraft landed at each airport. En-route Domestic / Oceanic Service business unit overheads are allocated directly to the services they relate to.

Company-wide overheads are allocated to the services where Airways is the sole provider by statute (Approach Service, En-route Domestic / Oceanic Service), based on their relative direct costs.

## 6.2 Prices by Location

Airways uses a mixture of location specific and service cluster pricing to best suit the characteristics of each service. The table below details the level of the grouping for each service.

Service type	Scope of price clusters	Comment
En-route Oceanic	National	Single price set applies nationally
En-route Domestic	National	Single price set applies nationally
Approach	Main trunk	Single price set applies to the main trunk airports (Auckland, Christchurch & Wellington)
	Regional controlled airports	Single price set applies to all regional attended airports
Airport	Auckland	Separate price set for Auckland
	Wellington	Separate price set for Wellington
	Christchurch	Separate price set for Christchurch
	Queenstown	Separate price set for Queenstown
	Regional controlled subcategory B & C	Single price set for airport service subcategories B & C (as defined by the Airways Service Framework (August 2021))
	Regional controlled subcategory D	Single price set for airport service subcategories D (as defined by the Airways Service Framework (August 2021))
	Regional AFIS by location	Separate price sets for each location
Unattended	By location	Separate price sets for each location
Circuits	National	Single price set applies nationally
Vicinity landing	National	Single price set applies nationally
Controlled VFR transits through controlled airspace	National	Single price set applies nationally
VFR flight plans	National, based on electronic/ other filing	Single price set applies nationally
Parachute	National, based on airspace complexity	Single price set applies nationally
Missed SAR times	National	Single price set applies nationally
Enhanced Services	Separately identified	Separate price for each enhancement

## 7▶ Unit Prices

Once the revenue requirements have been set for each service per Section 6, a unit price is chosen that will return the required revenue. Unit prices are set using volume forecasts for the service.

Consistent with international practice and ICAO guidelines, Airways uses aircraft weight as the basis for its charges. En-route charges also vary with distance flown. Intrinsic to the formulae is the principle that prices should be transparent and practicable. A simple pricing system lowers Airways' costs and those of its customers.

### 7.1 Approach Service Prices

(INCLUDES FLIGHT INFORMATION SERVICE AND ALERTING)

Prices vary by weight:

- ▶ there is a minimum price
- ▶ there is a base charge and a per tonne charge above 5 tonnes
- ▶ for aircraft above 30 tonnes, there is a weight charge based on the square root of weight

#### Expressed as a formula this is:

For aircraft flying IFR, the greater of the Minimum Price or:

for aircraft weights under 5 tonnes = Base Rate x MCTOW / 5

for aircraft weights 5-30 tonnes = Base Rate + Weight Rate x (MCTOW - 5)

for aircraft weights above 30 tonnes = Base Rate + Weight Rate x 5 x Square Root of (MCTOW - 5)

▶ where the Minimum Price, Base Rate and Weight Rate are provided by the relevant price table. Price tables provide the prices for each service and location. Price tables are provided in Airways' standard terms and conditions.

▶ where MCTOW is an aircraft's maximum certified take-off weight measured in tonnes.

Note a separate price will be calculated for landings outside the published hours of Air Traffic Service watch at attended airports. The price will be set at a lower level than the Approach price

## 7.2 En-Route Domestic / Oceanic Service Prices

(AKA AREA CONTROL SERVICES - INCLUDES FLIGHT INFORMATION SERVICE AND ALERTING)

Prices vary by weight and distance travelled:

- ▶ there is a minimum price
- ▶ there is a base charge and a per tonne charge above 5 tonnes
- ▶ for aircraft above 30 tonnes, there is a weight charge based on the square root of weight
- ▶ there is a distance charge

### 7.2.1 En-Route Domestic Service

Expressed as a formula this is:

For aircraft flying IFR, the greater of the Minimum Price or:

for aircraft weights under 5 tonnes = Base Rate x Nautical Miles / 100

for aircraft weights 5-30 tonnes = [Base Rate + Weight Rate x (MCTOW - 5)]  
x Nautical Miles / 100

for aircraft weights above 30 tonnes = [Base Rate + Weight Rate x 5 x Square root of (MCTOW - 5)]  
x Nautical Miles / 100

- ▶ where the Minimum Price, Base Rate and Weight Rate are provided by the relevant price tables. Price tables provide the prices for each service and location. Price tables are provided in Airways' standard terms and conditions
- ▶ where MCTOW is an aircraft's maximum certified take-off weight measured in tonnes
- ▶ where Nautical Miles is the distance between the origin and destination aerodromes less the terminal navigation radius at both aerodromes.

## 7.2.2 En-Route Oceanic Service

### Expressed as a formula this is:

For aircraft flying IFR, the greater of the Minimum Price or:

for aircraft weights under 5 tonnes =  $\text{Base Rate} \times \text{Oceanic Chargeable Distance} / 100$

for aircraft weights 5-30 tonnes =  $[\text{Base Rate} + \text{Weight Rate} \times (\text{MCTOW} - 5)] \times \text{Oceanic Chargeable Distance} / 100$

for aircraft weights above 30 tonnes =  $[\text{Base Rate} + \text{Weight Rate} \times 5 \times \text{Square root of } (\text{MCTOW} - 5)] \times \text{Oceanic Chargeable Distance} / 100$

- ▶ where the Minimum Price, Base Rate and Weight Rate are provided by the relevant price table. Price tables provide the prices for each service and location. Price tables are provided in Airways' standard terms and conditions
- ▶ where MCTOW is an aircraft's maximum certified take-off weight measured in tonnes
- ▶ where Oceanic Chargeable Distance for international flights is Airways' reasonable estimate of the average distance flown in nautical miles (by aircraft on the relevant route) between the outer boundary of the Auckland Oceanic Flight Information Region (NZZO) and the aerodrome of arrival or departure minus the total of 150 nautical miles plus the appropriate terminal navigation radius
- ▶ where Oceanic Chargeable Distance for international overflights is Airways' reasonable estimate of the average distance flown within the NZZO by aircraft on the relevant route in nautical miles.

## 7.3 Aerodrome Traffic Management Service Prices

(INCLUDES FLIGHT INFORMATION SERVICE)

Prices vary by weight:

- ▶ there is a minimum price
- ▶ there is a base charge and a per tonne charge above 5 tonnes
- ▶ for aircraft above 30 tonnes, there is a weight charge based on the square root of weight

### Expressed as a formula this is:

For aircraft flying IFR, the greater of the Minimum Price or:

for aircraft weights under 5 tonnes =  $\text{Base Rate} \times \text{MCTOW} / 5$

for aircraft weights 5-30 tonnes =  $\text{Base Rate} + \text{Weight Rate} \times (\text{MCTOW} - 5)$

for aircraft weights above 30 tonnes =  $\text{Base Rate} + \text{Weight Rate} \times 5 \times \text{Square Root of } (\text{MCTOW} - 5)$

- ▶ where the Minimum Price, Base Rate and Weight Rate are provided by the relevant price table. Price tables provide the prices for each service and location. Price tables are provided in Airways' standard terms and conditions.
- ▶ where MCTOW is an aircraft's maximum certified take-off weight measured in tonnes.

## 7.4 Other Prices

### 7.4.1 Base Services

Other prices for Base Services are outlined below:

**Circuits** are charged a fixed fee for each circuit made, which is set below the minimum Aerodrome Traffic Management Service price. A circuit fee will not be applied if the reason for a circuit is due to Air Traffic Control Instructions. For pricing purposes, a circuit includes a missed approach, a touch and go, low approach, stop and go or a go around. A circuit does not include a final landing.

**Vicinity landings** are charged a fixed fee for each landing made. For the purpose of the Pricing Framework, a vicinity landing means any landing within an airport control zone, which is not at the attended airport. The fee is charged for the separation and/or flight information service received while operating in the airport control zone and making a vicinity landing. The vicinity landing fee is set below the minimum airport service price.

**Controlled VFR Transits through the airport control zone:** A VFR flight through an airport control zone (without a landing or vicinity landing) is charged a fixed fee for each new control zone entered in a single flight. The fee is set below the minimum Aerodrome Traffic Management Service price. An aircraft entering and exiting a single airport control zone multiple times in a single flight will incur a single fixed fee. An aircraft entering a control zone and then landing within the airport control zone will incur the airport landing fee or the vicinity landing fee and will not also incur a Controller VFR Transit fee.

**Controlled VFR Transits through terminal control areas and en-route airspace:** VFR flights through terminal control areas and en-route airspace will be charged a fixed fee. The definition as to how the fee will be applied will be presented as part of the implementation.

**VFR flight plans** are charged a fixed fee based on whether they are filed electronically or manually.

**Missed SAR** times are charged a fixed fee.

**Flight Information Service and Alerting Services in Uncontrolled Airspace** do not have a separate price. These services are included as part of Approach Service, En-Route Domestic / Oceanic Service, and Aerodrome Traffic Management Services.

## 7.4.2 Other Services

In addition to the Base Services described by the Airways Service Framework (August 2021), Airways also provides:

**Parachute Services** for which Airways charges a fixed fee based on the complexity of the airspace in which the service operates.

**Enhanced Services** over and above the Base Services described by the Airways Service Framework (August 2021). These include Auckland CAT III lighting and Queenstown Multilateration services which are charged in addition to the respective Base Services. These enhanced services are priced at a per tonne rate and are added to the respective Approach Service prices.

## 7.5 General Aviation Collection Methods

Payment options for under five tonne customers will include online payments and direct debits. This will ensure transaction and administrative costs are kept low. Payment methods and customer obligations are set out in Airways Standard Terms and Conditions and invoice terms.



## 8 ► Reporting Cycle

### 8.1 10-Year Plan

Airways will develop a 10-year service plan as part of the information to be provided to customers when setting prices for each pricing cycle. This will include project capital expenditure and strategic initiatives.

### 8.2 Annual Reporting on Financial and Service Performance

Airways will report on financial and service performance for each pricing year within four months of the end of that pricing year. The report will assess Airways' performance against the financial plan and service performance metrics (Scorecard) put forward as part of the process of setting prices for the pricing cycle.



## 9 Schedule: Example Price Calculations

### Example 1

Domestic IFR Flight : 0 – 5 Tonnes Aircraft		
<b>Route:</b> Wellington (NZWN) to Auckland (NZAA)		
<b>Aircraft Type:</b> C208 (Cessna 208) <b>Weight (kgs):</b> 3,628		
<b>Chargeable Distance (CD):</b> 208		
<b>Total Charge:</b> ANS Charge + GST		
Charge Type	Formula	Calculation
(a) Aerodrome Service Charge	base rate x MCTOW / 5	MAX(11.90, 15.45*(3.628/5))=\$11.90
(b) Approach Service Charge	base rate x MCTOW/ 5	MAX(5.95, 23.84*(3.628/5))=\$17.30
(c) En-route Domestic Charge	base rate x chargeable distance/100	MAX(6.94, 6.90*208/100)=\$14.35
Where CD = (Nautical Miles - TNR at both aerodromes) = 258 - 25 - 25 = 208		
Total Charge = (a) + (b) + (c) + GST = \$11.90 + \$17.30 + \$14.35 + \$6.53 = \$50.08		

### Example 2

Domestic IFR Flight : 5 - 30 Tonnes Aircraft		
<b>Route:</b> Auckland (NZAA) to Christchurch (NZCH)		
<b>Aircraft Type:</b> AT72 (Aerospatiale ATR72) <b>Weight (kgs):</b> 22,800		
<b>Chargeable Distance (CD) :</b> 350		
<b>Total Charge:</b> ANS Charge + GST		
Charge Type	Formula	Calculation
(a) Aerodrome Service Charge	base rate + weight rate x (MCTOW - 5)	15.45+7.40*(22.8-5)=\$147.17
(b) Approach Service Charge	base rate + weight rate x (MCTOW - 5)	23.84+9.28*(22.8-5)=\$189.02
(c) En-route Domestic Charge	[base rate + weight rate x (MCTOW - 5)] x chargeable distance/100	(6.90+3.10*(22.8-5))*350/100=\$217.28
Where CD = (Nautical Miles - TNR at both aerodromes) = 400 - 25 - 25 = 350		
Total Charge = (a) + (b) + (c) + GST = \$147.17 + \$189.02 + \$217.28 + \$83.02 = \$636.49		

\* Based on Standard Charging

Examples are estimates based on typical distances and weights as shown. Calculated charges may vary slightly due to rounding.

### Example 3

Domestic IFR Flight : Over 30 Tonnes Aircraft		
<b>Route:</b> Christchurch (NZCH) to Wellington (NZWN)		
<b>Aircraft Type:</b> B733 (Boeing 737-300)		<b>Weight (kgs):</b> 68,038
<b>Chargeable Distance (CD) :</b> 113		
<b>Total Charge:</b> ANS Charge + GST		
Charge Type	Formula	Calculation
(a) Aerodrome Service Charge	base rate + weight rate x 5 x $\sqrt{(\text{MCTOW} - 5)}$	$15.45 + 10.79 * 5 * \text{SQRT}(68.038 - 5) = \$443.79$
(b) Approach Service Charge	base rate + weight rate x 5 x $\sqrt{(\text{MCTOW} - 5)}$	$23.84 + 9.28 * 5 * \text{SQRT}(68.038 - 5) = \$392.24$
(c) En-route Domestic Charge	[base rate + weight rate x 5 x $\sqrt{(\text{MCTOW} - 5)}$ ] x chargeable distance/100	$(6.90 + 3.10 * 5 * \text{SQRT}(68.038 - 5)) * 113 / 100 = \$146.86$
Where CD = (Nautical Miles - TNR at both aerodromes) = 163 - 25 - 25 = 113		
Total Charge = (a) + (b) + (c) + GST = \$443.79 + \$392.24 + \$146.86 + \$147.43 = \$1,130.32		

### Example 4

International Flight Landing at a New Zealand Airport : Over 30 Tonnes Aircraft		
<b>Route:</b> Singapore (WSSS) to Auckland (NZAA)		
<b>Aircraft Type:</b> B744 (Boeing 747-400)		<b>Weight (kgs):</b> 396,893
<b>Oceanic Chargeable Distance (OCD) :</b> 423		
<b>Total Charge:</b> ANS Charge + GST		
Charge Type	Formula	Calculation
(a) Aerodrome Service Charge	base rate + weight rate x 5 x $\sqrt{(\text{MCTOW} - 5)}$	$15.45 + 4.52 * 5 * \text{SQRT}(396.893 - 5) = \$462.85$
(b) Approach Service Charge	base rate + weight rate x 5 x $\sqrt{(\text{MCTOW} - 5)}$	$23.84 + (9.28 + 0.39) * 5 * \text{SQRT}(396.893 - 5) = \$980.99$
(c) En-route Domestic Charge*	[base rate + weight rate x 5 x $\sqrt{(\text{MCTOW} - 5)}$ ] x chargeable distance/100	$(6.90 + 3.10 * 5 * \text{SQRT}(396.893 - 5)) * 150 / 100 = \$470.61$
(d) En-route Oceanic Charge	[base rate + weight rate x 5 x $\sqrt{(\text{MCTOW} - 5)}$ ] x oceanic chargeable distance/100	$(6.90 + 0.75 * 5 * \text{SQRT}(396.893 - 5)) * 423 / 100 = \$343.21$
Where OCD = (Nautical Miles - Domestic en-route- TNR at the aerodrome) = 698 - 150 - 25 = 423		
Total Charge = (a) + (b) + (c) + GST = \$462.85 + \$980.99 + \$470.61 + \$343.21 + \$338.65 = \$2,596.31		

\*Note: Domestic en-route chargeable distance (CD) for international flights is fixed at 150 nm

## Example 5

### International Flight Taking off from New Zealand Airport : Over 30 Tonnes Aircraft

**Route:** Christchurch (NZCH) to Tokyo (RJAA)

**Aircraft Type:** B772 (Boeing 777-200)

**Weight (kgs):** 297,000

**Oceanic Chargeable Distance (OCD) :** 776

**Total Charge:** ANS Charge + GST

Charge Type	Formula	Calculation
(a) Aerodrome Service Charge	No aerodrome service charge	
(b) Approach Service Charge	No approach service charge	
(c) En-route Domestic Charge*	$[\text{base rate} + \text{weight rate} \times 5 \times \sqrt{(\text{MCTOW} - 5)}] \times \text{chargeable distance}/100$	$(6.90 + 3.10 \times 5 \times \text{SQRT}(297-5)) \times 150/100 = \$407.65$
(d) En-route Oceanic Charge	$[\text{base rate} + \text{weight rate} \times 5 \times \sqrt{(\text{MCTOW} - 5)}] \times \text{oceanic chargeable distance}/100$	$(6.90 + 0.75 \times 5 \times \text{SQRT}(297-5)) \times 776/100 = \$550.81$

Where OCD = (Nautical Miles -Domestic en-route- TNR at the aerodrome) = 951 - 150 - 25 = 776

Total Charge = (c) + (d) + GST = \$407.65 + \$550.81 + \$143.77 = \$1,102.23

\*Note: Domestic en-route chargeable distance (CD) for international flights is fixed at 150 nm

## Example 6

### International Flight Overflying New Zealand Controlled Airspace : Over 30 Tonnes Aircraft

**Route:** Los Angeles (KLAX) to Sydney (YSSY)

**Aircraft Type:** B744 (Boeing 747-400)

**Weight (kgs):** 396,893

**Oceanic Chargeable Distance (OCD) :** 1,037

**Total Charge:** ANS Charge only

Charge Type	Formula	Calculation
(a) Aerodrome Service Charge	No aerodrome service charge	
(b) Approach Service Charge	No approach service charge	
(c) En-route Domestic Charge*	No en-route domestic service charge	
(d) En-route Oceanic Charge	$[\text{base rate} + \text{weight rate} \times 5 \times \sqrt{(\text{MCTOW} - 5)}] \times \text{oceanic chargeable distance}/100$	$(6.90 + 0.75 \times 5 \times \text{SQRT}(396.893-5)) \times 1037/100 = \$841.38$

Where OCD = (Oceanic Chargeable Distance) = 1,037

Total Charge = (d) = \$841.38

## 10 ► Glossary

<b>Circuit</b>	For pricing purposes, A circuit is a flight where the aircraft takes off and completes a circuit for the same runway or another runway at the same airport to carry out a touch and go, low approach and overshoot or stop and go.
<b>Civil Aviation Authority (CAA)</b>	A government body that regulates civil aviation in New Zealand.
<b>Controlled VFR Transit (for pricing purposes)</b>	When an aircraft flying VFR enters controlled airspace and does not land within that airspace.
<b>GA</b>	General Aviation, one of Airways' customer segments.
<b>ICAO</b>	The International Civil Aviation Organisation.
<b>IFR</b>	Instrument flight rules.
<b>Maximum certified take-off weight (MCTOW)</b>	The maximum certified take-off weight of an aircraft as specified in the certificate of airworthiness issues in respect of the aircraft and its associated flight manual.
<b>Airways Service Framework</b>	The Airways Service Framework (August 2021) sets out the Base Services that are described herein.
<b>Airways Standard Terms &amp; Conditions</b>	Defines the prices and contractual terms under which customers use the services outlined in the Airways Service Framework (August 2021).
<b>Trigger event</b>	A specified event that is outside Airways' control that may cause Airways to initiate a Price Reset within a pricing cycle.
<b>Vicinity landing</b>	For the purposed of the Pricing Framework, a vicinity landing means any landing within an airport control zone in respect of each attended airport, which is not at the attended airport.
<b>VFR</b>	Visual flight rules.

