

**Christchurch International
Airport Limited**

Cross-Submissions

31 August 2001

- 1 CIAL wishes to respond to the submissions of AIAL, BARNZ and Simon Terry Associates which it received two weeks ago. The short timeframe has left little opportunity for serious reflection and input from experts. Nevertheless, there are some aspects of the submissions that require a response and CIAL has directed its attention to those aspects.
- 2 CIAL does not repeat the submissions already made by it where it believes they adequately address issues raised in other parties submissions. For that reason, CIAL does not specifically address BARNZ's arguments, for example, in relation to the slogan "used and useful". It relies on what it previously said.
- 3 CIAL addresses a number of issues by topic and identifies cross-references in the relevant submissions.

Role of Efficiency Considerations in Commission Inquiry

- 4 In paragraph 13 of its original submissions (dated 27 April 2001) CIAL set out the three-step analysis it submitted must be undertaken. As CIAL reads the Draft Report, the Commission has essentially adopted such an approach. For the purposes of deciding whether there should be enhanced regulation, the proper focus should be on net efficiency gains, as the Commission has done.
- 5 It appears that AIAL and BARNZ do not necessarily support such an approach:
 - ? AIAL at paragraphs 4.4 to 4.7 advocates a test of "abuse of market power" measured by excess returns. The relevant pricing principles are discussed by NERA at page 15 et seq.
 - ? BARNZ appears to have a broader based objection to efficiency considerations (paragraphs 43.2, 43.8 and 44.1).
- 6 CIAL does not consider that either argument disturbs its original submission, nor the approach taken by the Commission in the Draft Report.

Opportunity Cost and Historic Cost in Relation to Sealed Areas

- 7 BARNZ deals with historic cost at paragraph 15.1 of its submissions. Its concession that there are arguments "for and against" the use of historic cost illustrates its ambivalence on the topic. In a submission that enthusiastically endorses a number of Commission conclusions that otherwise support its case, that ambivalence is revealing. In reality, BARNZ knows that historic cost is not justifiable. CIAL refers to its earlier submissions where it advocates ODRC. Professor Boyd has prepared a short statement which is annexed as Appendix A.
- 8 BARNZ's real focus (for valuation purposes) lies elsewhere. At paragraph 13.13 BARNZ states that CIAL's approach to valuing the land occupied by the terminal, and aircraft and freight, does not reflect the concept of opportunity cost.
- 9 CIAL and its valuation experts do not accept the opportunity cost approach, as defined by BARNZ and the Commission, as the correct method of valuing either

airport land or specialised assets. As previously noted by Mr Peter Seed the Commission's approach has no foundation and is totally inconsistent with New Zealand and international best practice.

- 10 CIAL has used a zonal approach (which is endorsed by the valuation profession) for valuing the airport campus where the value of each zone reflects the intensity of use of the land. Somewhat inconsistently, this approach has been accepted by the Commission (see paragraph 7.32 of the Draft Report). Given that the airport assets are specialised this is the most appropriate valuation method.
- 11 BARNZ also refers to aircraft and freight land. The valuation of aircraft and freight land is a clear illustration of why the use by CIAL of a zonal approach to value land is appropriate. Aircraft and freight operators are spread over the eastern side of the CIAL campus. Some have direct airside access and others do not. The operators face the choice of being on the CIAL campus or at near-by commercial developments off-campus. The land values of the alternative off-campus locations for freight operators set a benchmark for the land values of the aircraft and freight operations on-campus.
- 12 BARNZ appears to suggest that the opportunity cost of on-campus aircraft and freight land should be based on rural land. Even assuming that opportunity costing is appropriate (which CIAL does not), this would mean that aircraft and freight land on the CIAL campus would be valued at about 10% to 20% of the land value of an adjacent block of land off-campus (for example, industrial land along Johns Road). That off-campus land is used by freight operators undertaking largely the same activity as those located on-campus. BARNZ does not even attempt to address this.
- 13 At paragraphs 18.5 and 31.2, BARNZ makes various adjustments to CIAL asset values. CIAL does not agree with the adjustments made to the resale provision. It has no further comments on the land value adjustments made by BARNZ.

CIAL's Asset Beta

- 14 Both AIAL and BARNZ challenge CIAL's asset beta of .65 (AIAL indirectly; BARNZ directly).
- 15 AIAL argues that CIAL's asset beta may be lower than AIAL's (paragraphs 6.4 and 6.9; Marsden report). By contrast, BARNZ agrees with the Commission that CIAL's asset beta may be higher than AIAL's but says the difference between the two is too small to measure (paragraph 23.1). In any event, BARNZ argues that CIAL's and AIAL's asset betas fall within a range considerably lower than that advocated for by CIAL.
- 16 Both AIAL and BARNZ repeat the Commission error (Draft Report, paragraph 8.61) that CIAL has reserved to itself the right to alter prices. Mr Bellew, in his evidence filed with the Commission on 14 August 2001, says that is wrong. CIAL has not reserved to itself that right.
- 17 CIAL argues that the Commission has correctly understood the matter in paragraph 8.62 of its Draft Report where it says that in reality airports cannot reset prices instantaneously and recover immediately any shortfall due to

changes in costs or throughput. Airports do bear most of the risks associated with fluctuations over the three year period. CIAL has already spelt that out in some detail in earlier submissions.

- 18 AIAL, at paragraph 6.9(e)(first bullet point), makes a curious submission that has its provenance in Dr Marsden's report. It is suggested (and that is as high as it can be put) that the South Island economy is more resilient than that of the overall national economy. That may be news to those of us who live in the South Island but, in any event, is not supported by evidence.
- 19 CIAL fundamentally disagrees with AIAL's submission that Auckland's systematic risk may be higher than Christchurch. Dr Lawriwsky has already given evidence about this. A further short statement from him is attached as Appendix B. CIAL argues:
- ? Dr Marsden's analysis is based on incomplete information, particularly on the domestic proportions of passengers.
 - ? Such evidence as does exist suggests that AIAL is less affected than CIAL by domestic shocks.

Excess Returns

- 20 AIAL at paragraph 8.3(b) of its submissions commented on the Commission's modelling assumptions. CIAL has, as a consequence, reworked the relevant spreadsheets using the same reasoning. Mr Peter Seed has prepared a further statement which attaches the reworked spreadsheets, all of which is attached as Appendix C. This report shows that instead of there being excess returns, CIAL has consistently under-recovered. These reworkings also take account of the earlier identified error at page 275 of the Commission's Draft Report (concerning the TU154).
- 21 The Commission, while acknowledging that excess returns could reflect superior performance (Draft Report, paragraph 10.6), has effectively assumed they do not in this case. CIAL does not believe such an assumption can be made. That assumption appears to reflect the pure competitive model used by the Commission which CIAL has already criticised.
- 22 BARNZ is not prepared to countenance that excess returns may be due to superior performance (BARNZ, paragraphs 31.2 to 31.4). Its position is equivalent to zero tolerance of any deviation from "normal".
- 23 Importantly, though, BARNZ acknowledges the difficulty of making such an assessment in the first place (see first sentence to paragraph 31.2). CIAL endorses that recognition. Nevertheless, neither BARNZ nor the Commission relies on that recognition in any practical way. The reality is that it is extremely difficult to assess whether there have been excess returns (monopoly rents). Certainly, it is an area where hidden assumptions need to be explored and tested. Neither BARNZ nor the Commission does so.
- 24 In answer to Question 38 BARNZ makes submissions concerning CIAL and the extent to which it is likely to abuse its market power. CIAL thinks such

speculation is less helpful than a proper analysis of the figures, as Mr Peter Seed has done.

Allocative Efficiency

- 25 CIAL largely agrees with AIAL's submissions at paragraph 10.6 and NERA at paragraph 7.22. It notes an apparent typographic error in the AIAL submissions in the last line of page 118 – presumably “efficiency” should read “inefficiency”.
- 26 BARNZ comments on the Commission's assessment of the price elasticity of demand at paragraphs 7.1 to 7.3. BARNZ does not address the issue of how much of the ticket price is made up of the airfield component of the total landing charge.
- 27 CIAL has calculated that the average proportion of the ticket price made up of the total landing charges (i.e. terminal and airfield charges) is around 1.5% for international and around 3% for domestic services. Given the relative proportions of airfield and terminal charges, the average proportion of the ticket price made up of airfield landing charges is about 0.8% for domestic services and 1.6% for international services.
- 28 This would imply that rather than using (0.105) as its estimate of elasticity for CIAL, the Commission should be using an elasticity estimate of between (0.012) and (0.024).

Productive Efficiency

- 29 At paragraphs 33.6 and 39.3 BARNZ “suggests” that a 3% deduction should be made for efficiency improvements. No evidence is given to support such an assessment for Christchurch. CIAL has already criticised the Commission's 1% loading. Those submissions apply, with even greater force, to the BARNZ assertion.

CIAL Terminal

- 30 In various paragraphs (eg 40.4, 47.3 and 48.9) BARNZ criticise costs (etc) in relation to CIAL's terminal. It advocates widening the inquiry. Such submissions must be disregarded and CIAL does not deal with them further.

Cost of Regulation

- 31 CIAL and BARNZ are some distance apart on the question of costs of price control. CIAL does not repeat what it has already said about that. It does challenge the BARNZ assertion, however, that the costs of price control should not be passed on. If that assertion was correct (which it is not) then such further costs would need to be built into the Commission's models. More significantly, however, it is appropriate to pass the costs on so they are borne by the beneficiaries of the efficiency benefits that additional price control would supposedly realise.

Miscellaneous

- 32 BARNZ addresses Question 49 by setting out a series of points by reference to particular paragraphs in the Draft Report. CIAL wishes to address two of these.
- 33 First, CIAL addresses BARNZ's comments on the Commission's statement in paragraph 4.54 of the Draft Report. BARNZ is substantially correct but that is correct only so far as the Crown shares are concerned.
- 34 Secondly, in relation to paragraph 4.72 of the Draft Report, CIAL disagrees, strongly, with the characterisation ("spin" might be a better word) adopted by BARNZ in the second sentence. The reason that "wrong inputs" were used in the case of certain aircraft was because BARNZ did not supply the correct information. Once that information was received by CIAL it did make the changes. This did not affect the required revenue but did affect the allocation of cost between different aircraft types.

APPENDIX A

COMMENTS ON SUBMISSIONS ON THE PROPOSED USAGE OF HISTORIC COSTS OF AIRFIELD IMPROVEMENTS

Professor Terry Boyd

- 1 It is noted that there is limited support in the submissions for the use of historic costs, in place of replacement costs, as the appropriate approach for determining the current fair value. There is strong support for a sound and consistent methodology to derive a fair value in the absence of an open market value.
- 2 Simon Terry Associates refer to six potential ways of misusing the replacement cost approach (pp 1 & 2) but this does not negate its acceptance as the preferred approach to derive a current value. There are processes to challenge any incorrect application of the approach and these processes are in place.
- 3 I believe that the valuation approach should not differ according to the purpose for which the valuation is used. Simon Terry Associates support their selection of the historic cost approach for “ratebase purposes”. However they acknowledge that asset revaluations are correctly included as a component of the return when determining a vesting price. Consistency of approach is crucial and historic costs do not provide a consistent or equitable approach when a current value is required.
- 4 BARNZ in response to the Commission’s questions are undecided on the appropriate cost approach (paragraph 15.1) but they correctly stress that “*Whichever methodology is adopted, it is important that it is applied consistently and in an internally logical manner*”. I believe that the proposal to use historic costs of improvements in conjunction with current land values is not logical. Further, the use of vested prices as a basis for historic costs amplifies the inconsistencies in this approach.

29 August 2001

APPENDIX B

DIFFERENCES IN FUNDAMENTAL APPROACHES BETWEEN EXPERTS IN RELATION TO DETERMINATION OF AN ASSET BETA

Dr M Lawriwsky

- 1 Further to my evidence on the Commerce Commission's Draft Report, this supplementary evidence examines the different approaches to determining the asset beta for airports with which the Commission has been presented. The three approaches are those presented by Dr Martin Lally, Dr Alastair Marsden and those contained in my submission on the Commission's Draft Report.
- 2 I am concerned that the apparently divergent views may lead the Commission to place insufficient weight on the key issues, being:
 - ? the existing and proposed regulatory environment;
 - ? the countervailing power of a small number of major customers;
 - ? the nature of the business risk faced by CIAL which is driven by the contracting arrangements (or lack thereof) that CIAL has with major customers.
- 3 For the Commission's benefit, I have summarised the three approaches as follows:

Dr Lally

- 4 Dr Lally uses asset beta data from the US electricity industry as a base (0.35) and adds 50% of the assumed regulatory effect (.10) to derive an estimate of 0.45. Dr Lally has ignored the airport industry effect and domestic/international effects as being "too difficult" to estimate. Dr Lally did not provide any empirical evidence to back his claims.
- 5 Dr Lally's report is weak in a number of areas. However, the main one is the lack of any "reality" check on whether the resulting beta estimates (albeit ones that Dr Lally was comfortable with, from a statistical point of view) were consistent with industry norms. For example:
 - ? Dr Lally rejected comparison with the ports industry but did state that, on balance, the beta for an airport should be greater than the beta for a port company. There was no check to see if this was borne out by his estimate.
 - ? Dr Lally states in several parts of his report that the nature of the airport business should give rise to a higher level of systematic risk compared to an electricity distribution company. However, he then stated he was

“disinclined to attempt subjective adjustments” to account for this factor. I note that this is despite making a number of other subjective judgements throughout his report.

- ? Dr Lally does not attempt to reconcile the differences between his estimates of asset beta for New Zealand airfield activities with the estimates used by the ACCC for airports, electricity or gas.

Dr Marsden

- 6 Dr Marsden criticised Dr Lally for ignoring the industry effect and impacts of the relative mix of domestic and international passengers traffic. However, Dr Marsden did not offer a solution. Dr Marsden pronounced that “UK Electricity” with an asset beta of .56 is a better proxy. However, he provided no empirical evidence to back his claims. Dr Marsden argues that the true international/international traffic difference between CIAL and AIAL is narrowed and that New Zealand resident international passenger traffic will be more reactive to the level of domestic economic activity. Dr Marsden has not tested this hypothesis. It is merely speculation.
- 7 On page 3 of his submission, Dr Marsden calculates AIAL’s WACC range using an asset beta range of .45 to .55. If asset beta should be “close to .56” as he claims (p.2) it appears inconsistent that the range he gives is centred on .50 (the AIAL range).
- 8 Dr Marsden conjectures that AIAL will be more affected by New Zealand economic downturns than CIAL. However, no evidence is presented whereas the chart that ANZIB prepared suggests that AIAL’s international and domestic passenger traffic is less sensitive to a New Zealand economic downturn than CIAL’s was in 1990/91. In 3.14 (page 4) Dr Marsden talks about “evidence”, but really hasn’t produced any.
- 9 Dr Marsden’s point (3.13, page 15) about CIAL’s domestic traffic not being driven by the domestic New Zealand economy will not hold to the extent that CIAL’s domestic traffic is based on domestic tourists and business travellers from all over New Zealand. In addition, it could be the case that the regional South Island economy is affected more than proportionally by any downturn in the entire country’s economy (and partly by a reduction in tourism from the north, as it may be more dependent on tourism). This could be the main factor behind the observed high sensitivity of CIAL’s domestic passenger and airport charge revenues during 1990-92.
- 10 Finally, Dr Marsden’s argument about CIAL’s shift to a greater emphasis on international travel is in my view overdone, since this shift appears to be relatively slow over time, although subject to volatility spikes. Over a three year time horizon it will not have an appreciable effect.

Dr Lawriwsky

- 11 I argue that the level of systematic risk of airfield activities should lie between the risk of the US electricity industry (adjusted for regulatory effects) and airlines (also adjusted for regulatory effects).

- 12 In my earlier submission I estimated a risk differential between domestic and international traffic by looking at relative airline betas. I took a mid point estimate for domestic and international traffic and weighted this by the relative mix of CIAL's airport passenger revenues.
- 13 I then used revenue and passenger data from the 1990/91 recession to substantiate my estimates of differentials for CIAL. It was found that the underlying risk characteristics for CIAL's airport charges were:
- ? significantly greater than the risks of the electricity industry; and
 - ? greater than the risk facing AIAL.
- 14 Finally, I took the derived results and checked for consistency within the context of overall airport asset betas. The estimates for AIAL and CIAL were found to be consistent with the observed range of asset betas for airports generally.

Summary

- 15 While it is difficult to estimate the appropriate asset beta for airport charges that have no direct listed company comparators, it is highly sub-optimal to retreat completely from the issue by using only the US and UK electricity industries as benchmarks. This is inconsistent with the practice of regulators in other countries and inconsistent with practice in private enterprise. An informed estimate needs to be made on the basis of the available empirical evidence.
- 16 The approaches of both Dr Lally and Dr Marsden ignore the empirical evidence that is available to test the relative risks of the airports under consideration. I refer specifically to the relative sensitivity of airport charges revenues to the significant swings in economic activity that occurred during the recession and subsequent recovery in 1990-92.
- 17 In conclusion, I would like to reiterate that while asset beta estimation is difficult, the fundamental position of the airports as a catalyst for economic growth, particularly in regional economies such as CIAL's, means that the consequences of under-estimating the asset beta are multiplied. For this reason the ACCC in Australia has decided to err on the side of over-estimation in its assessment of the cost of capital for airport charges.

APPENDIX C

REPORT ON FURTHER ISSUES RAISED IN THE COMMERCE COMMISSION'S DRAFT REPORT PRICE CONTROL STUDY OF AIRFIELD ACTIVITIES AT AUCKLAND, WELLINGTON AND CHRISTCHURCH INTERNATIONAL AIRPORTS AND SUBMISSIONS BY BARNZ

Peter Seed

- 1 I have been asked by Christchurch International Airport Limited (CIAL) to comment on a number of issues raised in various submissions made by interested parties to the Commerce Commission's Draft Report. My report forms part of a broader cross submission by CIAL. In particular, my report will address:
 - ? errors in the Commission's and BARNZ's estimates of CIAL's historic airfield revenue;
 - ? errors in the Commission's and BARNZ's estimates of historic airfield expenses;
 - ? the resulting errors in the Commission's and BARNZ's estimates of historic "excess returns";
 - ? errors in the BARNZ estimates of CIAL airfield revenue for the year ended 30 June 2001 and 30 June 2002, and
 - ? the resulting errors in estimated future excess returns.

BARNZ estimates of CIAL's airfield revenue

- 2 In its Draft Report the Commission calculated the airports' past returns based on an accounting rate of profit measure. In CIAL's case this was set out in appendix 10. The same worksheets are included in the BARNZ submission, albeit with a number of relatively minor amendments by BARNZ.
- 3 However there are significant errors in the Commission's and BARNZ's estimates of CIAL revenue. In fact there is a systematic over-estimate of the CIAL airfield landing charge revenue by the Commission and BARNZ of \$8.3 million on a cumulative basis (for the period 1989 to 2000).
- 4 Some of the errors have occurred because the Commission did not have access to all of the financial records which I have subsequently reviewed and described in this report. Some of the other errors, however, are inexplicable because the Commission did have the relevant information. During the informal information gathering stage of the Price Control Study, CIAL supplied a number of documents to the Commission, breaking down CIAL's aeronautical revenue into

that attributable to airfield, rescue fire, international and domestic terminal and quarantine charges. (See documents CIAL0012, CIAL0031 and CIAL0045 provided to the Commission on 7 October 1998, 27 May 1999 and 22 September 2000). Document CIAL0045 provided a summary of CIAL airfield revenues for the financial years 31 March 1990 to 30 June 1999.

- 5 Prior to 1995, the airfield component was estimated, as individual records of the break up of aeronautical revenue into airfield and terminal revenues were not kept. The method of reallocation of aeronautical revenues prior to 1995 was shown on CIAL0045. As landing charges had been constant over most of the period there is no reason to expect that the proportions of terminal and airfield revenue would have altered significantly prior to 1995.
- 6 The Commission has used revenue numbers for CIAL that are consistently and significantly higher than the actual CIAL airfield revenues. The extent of the difference is shown in the following table:

CIAL Airfield landing charge revenue comparisons \$'000			
	Commission/ BARNZ	CIAL Actual	Commission Over/(under) Estimate
	\$'000	\$'000	\$'000
Mar-89	9,874	5,362	4,512
Mar-90	8,932	8,495	437
Jun-91	8,751	8,322	429
Jun-92	8,505	8,089	416
Jun-93	9,244	8,792	452
Jun-94	9,804	9,324	480
Jun-95	10,585	10,114	471
Jun-96	11,053	10,522	531
Jun-97	11,126	10,542	584
Jun-98	10,485	10,485	-
Jun-99	10,665	10,680	(15)
Jun-00	10,081	10,081	-
Cumulative Over-Estimate by Commission and BARNZ			8,297

Notes

1. The landing charge revenues are for all airfield aeronautical activities and include general aviation revenues of between \$60,000 and \$70,000 per annum.
2. Revenues for the year ended 30 June 1991 have been annualised. The actual over-estimate by the Commission for the fifteen-month period to 30 June 1991 is \$536,000.
3. Revenues for the financial years ended 30 June 1995 to 30 June 2000 are actual airfield landing charges.
4. Prior to 1995, revenue was not allocated between airfield, RFS and terminal etc. Therefore, CIAL airfield revenues prior to 1995 are based on percentage allocations of total aeronautical revenue. CIAL estimated that prior to 1995 16% of total aeronautical revenues were rescue fire and 38% of total revenues were airfield. Details of the allocations are found in CIAL0045, supplied to the Commission on 22 September 2000.
5. Airfield revenues for 1989 are based on the same percentage allocations as those used for 1990 to 1994.

- 7 One of the most significant errors made by the Commission (which is repeated in the BARNZ analysis) is the incorrect assessment of airfield revenue in 1989. The Commission and BARNZ have used *total* CIAL aeronautical revenue as reported in the CIAL 1989 annual report instead of just airfield revenue. This overstates CIAL airfield revenue in the year ended 31 March 1989 by around \$4.5 million. The balance is terminal revenue.
- 8 Both BARNZ and the Commission have also incorrectly included revenue from non-airfield activities in their estimates of total airfield revenue. The Commission has included information on “other revenue” derived from CIAL disclosure financial statements as specified for airfield activities under the Airport Authorities Amendment Act 1997. Asset and revenue allocations for disclosure purposes under this Act, and pricing purposes at CIAL, are similar but not the same. Disclosure financial statements include assets and income for the following activities that are *not* included for pricing purposes by CIAL:
 - ? assets, and the revenues and costs associated with those assets, that are held for future development;
 - ? assets, and the revenues and costs associated with those assets, used for air traffic and parking apron control;
 - ? assets, and the revenues and costs associated with those assets, used for airfield supervisory and security services.
- 9 The revenues for these activities are included in the definition of airfield activities for *financial disclosure* purposes – not pricing purposes at CIAL. Therefore other revenues (apart from GA revenues amounting to between \$60,000 and \$70,000 on average) are not relevant for pricing purposes and should be deleted from the assessment. Moreover, to compound its error, the Commission has included the revenue for these other activities but has *not* included the assets in the asset base. Therefore, once again, there is an upward bias in the Commission’s estimates of CIAL revenue.
- 10 I note that in its analysis BARNZ appears to have accepted the approach taken by the Commission and therefore the errors in the estimates of CIAL revenue. BARNZ did this even though its experts acknowledged the difference between the financial disclosure allocations and the pricing allocations during the pricing consultation process with CIAL.
- 11 These errors are significant. There is no apparent explanation by the Commission as to why it has used different revenues than those supplied by CIAL in 1998, 1999 and 2000. Correcting the revenue figures used by the Commission and BARNZ – all other assumptions being unchanged – reduces the arithmetic average return on airfield activities from the Commission’s estimate of 11.65% to 9.56%.
- 12 This revised estimate is less than the Commission’s estimated target return of 9.64%. Therefore I do not accept, as the Commission did at paragraph 10.2 of its Draft Report, and endorsed by BARNZ at paragraph 31.2, that CIAL has

“exploited” its “market power in airfield activities by raising prices above the competitive level in a fairly sustained fashion”.

Historic airfield expenses

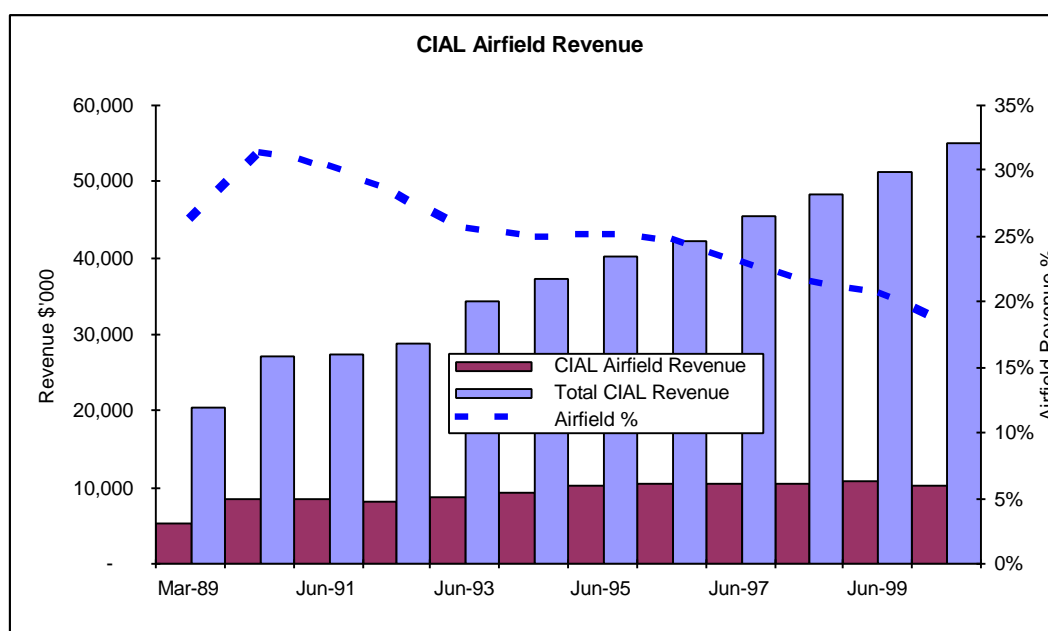
- 13 A second area where the Commission has made a number of conceptual and factual errors is in the calculation of CIAL’s historical airfield expenses. In reviewing the Commission’s estimates of airfield expenses, I have noted the following errors:
- ? a systematic under-estimation of the airfield depreciation expenses;
 - ? an inappropriate approach to estimating past historic costs based on the ratio of CIAL’s 1998 airfield costs to 1998 total costs.
- 14 The Commission has estimated CIAL’s past airfield expenses, prior to the financial year ended 30 June 1998, as a constant ratio of the relevant airfield cost in 1998 to the comparable cost category for the total CIAL operation. For example, airfield depreciation has been estimated as a *constant* percentage of total CIAL depreciation. I deal first with depreciation before addressing the wider consequences of the Commission’s approach.
- 15 The Commission did not appear to cross check the relevance and reliability of its approach by considering that if assets, such as sealed surfaces, were being depreciated on a straight-line basis, the dollar amount of depreciation in 1990 would have been about the same in 1990 as it is now. However, the Commission has assumed that the dollar amount was considerably lower (by about 75%).
- 16 Based on information contained in CIAL’s financial and management accounts, the depreciation allocation for airfield activities is considerably higher than that allowed for by the Commission. In relation to the early 1990s the Commission’s approach has understated the actual depreciation cost to CIAL by around 75%. In fact, the Commission and BARNZ under-estimate the airfield depreciation allowance by almost \$8 million on a cumulative basis.
- 17 A comparison of the depreciation estimates used by the Commission and BARNZ with those estimated by CIAL, as derived from the CIAL financial accounts, is set out below.

CIAL Depreciation Comparison \$’000			
	Commission/ BARNZ	CIAL Actual	Commission Over/(under) Estimate
	\$’000	\$’000	\$’000
Mar-89	429	1,710	(1,281)
Mar-90	585	1,714	(1,129)
Jun-91	692	2,174	(1,482)
Jun-92	428	1,057	(629)
Jun-93	593	1,462	(869)
Jun-94	617	1,453	(835)
Jun-95	585	1,231	(646)

Jun-96	673	1,206	(534)
Jun-97	1,050	1,388	(338)
Jun-98	1,198	1,378	(180)
Jun-99	1,377	1,464	(88)
Jun-00	1,394	1,362	32
Cumulative Under-Estimate by Commission and BARNZ			(7,979)

18 As noted, the Commission has estimated CIAL’s past airfield expenses, prior to the financial year ended 30 June 1998, as a constant ratio of the relevant airfield cost in 1998 to the comparable cost category for the total CIAL operation. Part of the reason for taking this approach was the unavailability of directly allocated accounting cost data. Prior to the introduction of CIAL’s Sun Financial System, costs were allocated by areas of management responsibility which did not closely match the definition of airfield activities used for pricing purposes. CIAL accepts that this information is not available but, as I now demonstrate, reasonable estimates can be made.

19 The Commission implicitly assumed that airfield activities have been a constant percentage of total CIAL activities. However, as shown in the chart below, airfield activities were a much higher proportion of total CIAL activities in the early 1990s than now. From making up around 30% of total CIAL revenue in 1990, airfield charges made up only 18.4% of total CIAL revenue in the year ended 30 June 2000 (see the dotted line in the following chart).



20 This demonstrates clearly that airfield activities were a larger part of CIAL’s total business in the early 1990’s than now. Therefore, given that the Commission has acknowledged that the airfield operation is a “fixed cost” business we would expect that costs associated with the airfield would be a higher proportion of total CIAL costs in the early 1990s than now.

21 CIAL has applied the proportional allocation of costs derived from CIAL’s Sun Financial System to the financial years ended 30 June 1998 to 30 June 2000.

The original Travers Morgan pricing model and other documents, supplied to the Commission as documents CIAL0011, CIAL0016 and CIAL0017 in October 1998, also contain cost allocations expected to apply in the early 1990s. Therefore for the periods for 1990 to 1998 CIAL has interpolated between the proportions of costs allocated by Travers Morgan in 1989 to 1990 and the allocations that were appropriate in 1999 to 2000. The overall effect is that in the early 1990s, airfield costs were a higher proportion of overall CIAL costs than they were in the late 1990s. Given the growth in CIAL's non-aeronautical revenue, and the relative declining proportion of CIAL's aeronautical revenue, this is a logical assumption.

- 22 Prior to 1998, some costs, such as rescue fire staff salaries, sealed surfaces maintenance and other expenses were directly allocated to the fire service and airfield cost centres. However, many other costs, such as divisional management salaries were not. For years prior to 1998, CIAL has directly allocated major costs items and then allocated other costs using the interpolation approach set out above.
- 23 In summary, the impact of the cost allocation approaches taken by the Commission (and also largely by BARNZ) is systematically to under-estimate the total expenses associated with airfield activities. The differences are summarised in the following table and amount to over \$8.8 million on a cumulative basis.

CIAL Airfield Expenses - excluding depreciation \$'000			
	Commission	CIAL Actual	Commission Over/(under) Estimate
	\$'000	\$'000	\$'000
Mar-89	3,948	3,843	105
Mar-90	4,188	4,524	(336)
Jun-91	5,169	4,389	780
Jun-92	4,173	5,286	(1,113)
Jun-93	4,562	5,867	(1,305)
Jun-94	4,645	5,921	(1,276)
Jun-95	4,744	5,824	(1,080)
Jun-96	5,003	6,188	(1,184)
Jun-97	5,370	6,095	(726)
Jun-98	5,116	6,836	(1,720)
Jun-99	4,469	5,636	(1,167)
Jun-00	6,066	5,893	173
Cumulative Under-Estimate by Commission and BARNZ			(8,849)

Errors in the estimates of returns made by BARNZ and the Commission

- 24 The combined impacts of the approaches taken by BARNZ and the Commission to allocating costs and determining airfield revenue has been systematically to over-estimate the net operating profit (NOPAT) derived from airfield activities. In turn, this systematically biases any estimate of average excess returns.

- 25 The Commission has systematically over-estimated CIAL airfield revenue by \$8.3 million on a cumulative basis from 1989 to 2000. At the same time it has under-estimated CIAL airfield expenses (including depreciation) by \$16.3 million on a cumulative basis over the same period. After deducting taxation (and taking account of the differing tax rates that applied in 1989) the impact of these combined errors is to over-estimate CIAL's cumulative NOPAT by \$18.6 million.
- 26 In its cross submission BARNZ has adopted the same expense allocations as those used by the Commission except for the year ended 30 June 2000 where it has deducted a further \$806,000 being the annual change in the resale provision. I do not accept that approach but bearing in mind the extent of the other errors made, do not address it as a separate issue. For the purposes of my report I assume that BARNZ and the Commission have adopted a similar approach.

CIAL Airfield NOPAT \$'000			
	Commission/ BARNZ	CIAL Actual	Commission Over/(under) Estimate
	\$'000	\$'000	\$'000
Mar-89	4,102	(191)	4,293
Mar-90	2,920	1,512	1,408
Jun-91	2,070	1,470	600
Jun-92	2,750	1,170	1,580
Jun-93	2,874	980	1,894
Jun-94	3,177	1,307	1,870
Jun-95	3,656	2,049	1,606
Jun-96	3,737	2,096	1,641
Jun-97	3,287	2,049	1,238
Jun-98	2,939	1,521	1,418
Jun-99	3,367	2,398	968
Jun-00	2,023	1,894	130
Cumulative Over-Estimate by Commission and BARNZ			18,646

- 27 As historical NOPAT has been overstated by the Commission and BARNZ it follows, all other things being equal, that the Commission's estimates of airfield annual returns and excess returns will also be overstated. Based on the corrected revenue, depreciation and expense figures for airfield returns (as set out above), the average returns for CIAL are considerably lower than those assessed by the Commission.
- 28 The following assessment utilises the historic cost asset valuation approach advocated by the Commission and the Commission's estimate of the cost of capital. I do not agree with either the Commission's WACC estimate or the use of the historic cost approach. As I said in my earlier paper, if the optimised depreciated replacement cost (ODRC) methodology was used by the Commission then CIAL's airfield returns would be considerably lower. If the Commission used a WACC that more adequately reflected the systematic risks associated with airfield investment, then returns would be further reduced.

CIAL Accounting Rate of Profit estimates %

	Commission/ BARNZ	CIAL	Commission Over/(under) Estimate
	\$'000	\$'000	\$'000
Mar-89	15.2%	1.8%	13.3%
Mar-90	13.9%	9.5%	4.4%
Jun-91	9.5%	7.8%	1.7%
Jun-92	6.5%	2.0%	4.5%
Jun-93	7.3%	1.8%	5.5%
Jun-94	8.1%	2.7%	5.4%
Jun-95	11.8%	6.5%	5.2%
Jun-96	13.0%	6.9%	6.1%
Jun-97	13.0%	8.2%	4.8%
Jun-98	11.5%	6.0%	5.5%
Jun-99	23.9%	20.3%	3.6%
Jun-00	6.1%	5.7%	0.4%
Average - Arithmetic	11.7%	6.5%	5.0%

29 Based on the corrections made to the Commission's assessments of CIAL's revenue, operating costs and depreciation, CIAL's average returns are 6.5% rather than the 11.7% assessed by the Commission. The incremental effects of correcting revenue, depreciation and operating cost errors are summarised in the following table.

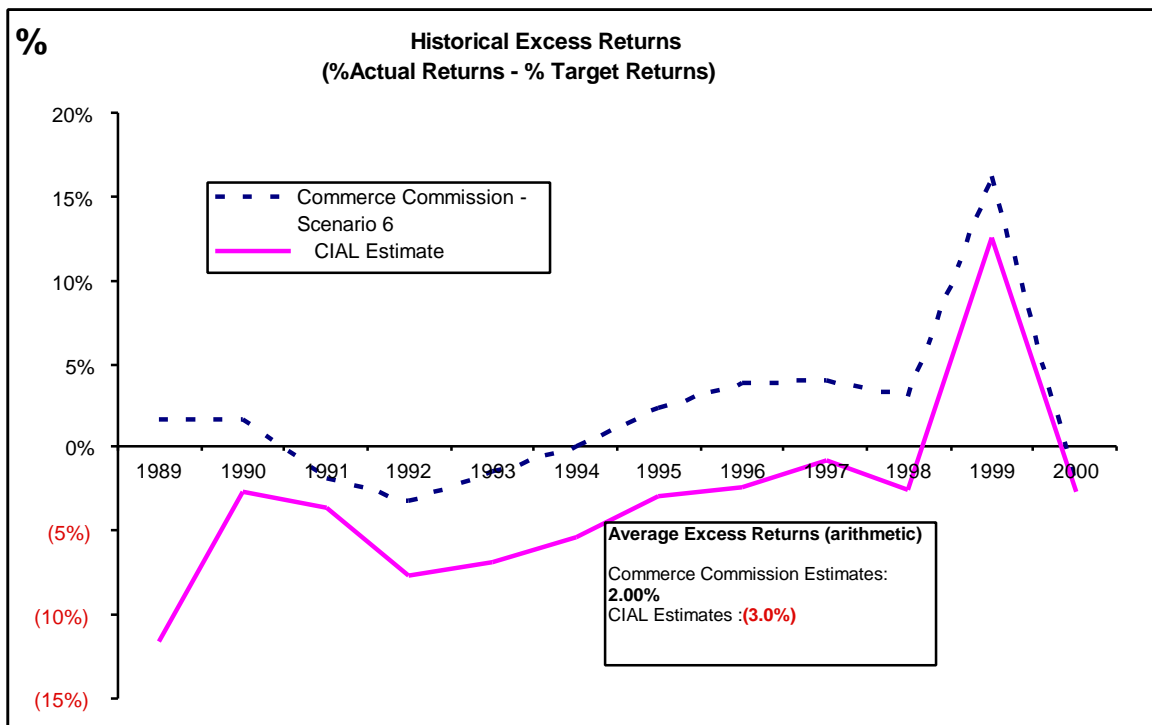
	Average Return	Incremental impact
Commission's original assessment	11.65%	
Correcting errors in historic CIAL revenue	9.56%	(2.09%)
Correcting revenue and depreciation	8.11%	(1.45%)
Correcting revenue, depreciation and operating expenses	6.53%	(1.58%)

30 Correcting for the Commission's revenue errors reduces the average return for CIAL from 11.65% to 9.56%, a drop of just over 2%. Taking account of the Commission's errors in depreciation and operating expenses reduces the returns by a further 3%. The subsequent impacts on excess returns are summarised in the following table.

CIAL Excess return estimates %

	Commission/ BARNZ	CIAL	Commission Over/(under) Estimate
	\$'000	\$'000	\$'000
Mar-89	1.7%	(11.6%)	13.3%
Mar-90	1.7%	(2.7%)	4.4%
Jun-91	(1.8%)	(3.6%)	1.7%
Jun-92	(3.2%)	(7.7%)	4.5%
Jun-93	(1.4%)	(6.9%)	5.5%
Jun-94	0.1%	(5.3%)	5.4%
Jun-95	2.4%	(2.9%)	5.2%
Jun-96	3.8%	(2.3%)	6.1%
Jun-97	4.0%	(0.8%)	4.8%
Jun-98	3.0%	(2.5%)	5.5%
Jun-99	16.2%	12.6%	3.6%
Jun-00	(2.3%)	(2.7%)	0.4%
Average - Arithmetic	2.0%	(3.0%)	5.0%

31 As opposed to the Commission’s assessment of an average 2.0% excess return, relative to the Commission’s assessed WACC, the corrected return is in fact (3.0%). This is 5% less than the Commission’s assessment. The Commission’s assessment and the revised assessment are shown in the following chart (which should be compared with Chart 3 at page 142 of the Commission’s Draft Report).



Revenue estimates for 2001 and beyond made by BARNZ and the Commission

- 32 As highlighted in my earlier submission at paragraph 190, the Commission had made a serious error by appearing to transpose the movements data for Metroliner aircraft with the TU154. As pointed out, the TU154 rarely if ever lands at CIAL and the upshot was that the Commission over-estimated airfield revenue by around \$3.4 million. In its most recent submission BARNZ did not note this error, despite BARNZ airlines using the airport and presumably having access to data on schedules and movements.
- 33 Since I made my original submission I have obtained further information from CIAL on movements at CIAL for the year ended 30 June 2001. I noted that at paragraph 202 the Commission's analysis assumed a full year of the new prices. However, the revised prices only applied from 1 January 2001 to 30 June 2001. Therefore, the Commission's workings should have assumed an increase for a half year only. Consequently, the Commission has clearly over-estimated landed MCTOW tonnages, movements and revenue at CIAL by 546,000 tonnes for this first year.
- 34 The differences between the Commission's assessment for the year ended 30 June 2001 and the actual out-turn are summarised in the following table. The calculation of the revised estimates is in the workbook Seed Attachment.

	CIAL Actual – year ended 30 June 2001			Commission Estimates	
	1st Half	2 nd Half	Total	CC	Variance
Airfield Revenue \$'000	\$3,559	\$6,080	\$9,639	\$17,557	\$7,918
Landed MCTOW '000 tonne	925	855	1,780	2,326	546
Movements	21,102	19,014	40,116	41,461	1,345
\$ per tonne MCTOW	\$3.85	\$7.11	\$5.42	\$7.55	\$2.13

- 35 The movements shown in the preceding table are the actual movements for the first and second halves of the financial year ended 30 June 2001. The lower movements in the second half of the year reflect, among other things, the discontinuation of services by Korean Airways and also Qantas New Zealand.
- 36 For the first *full* year of charges, the year ended 30 June 2002, I have estimated the following revenues, MCTOW and movements. The expected movements take account of the following factors that have not been taken account of by the Commission or BARNZ:
- ? discontinuation of the Qantas New Zealand B146 service
 - ? introduction of regional B146 service by Air New Zealand;
 - ? increased B733 flights by Qantas Airways;

? discontinuation of Dash 8 services by Qantas New Zealand

? introduction of Dash 8 services by Origin Pacific

37 CIAL's expected movements for the financial year ended 30 June 2002 are contained in Appendix One. As with the transition year, i.e. the year ended 30 June 2001, the Commission's estimates differ from the CIAL forecast based on recent events and the most likely fleet mix.

	CIAL	Commission Estimates	Variance
Airfield Revenue \$'000	\$13,103	\$17,557	\$4,454
Landed MCTOW '000 tonne	1,849	2,326	477
Movements	39,904	41,461	1,557
\$ per tonne MCTOW	\$7.09	\$7.55	\$0.46

38 This has ramifications for the calculation of excess returns and allocative inefficiency contained in appendix 10 of the Commission's Draft Report and also in the BARNZ attachments. The impacts of the revised movements and revenue are summarised in the following table.

CIAL reduced excess returns and reduced allocative inefficiency

	Year One to 30 June 2001	Year One to 30 June 2002
Commission estimates	\$3,893,881	\$3,893,881
CIAL estimates	0	865,646
Over-estimate by Commission	\$3,893,881	\$3,028,235

39 Correcting the movements data reduces the first year excess returns and allocative inefficiency estimate by \$3.9 million. In the second year and beyond, the Commission's assessments of excess returns and allocative efficiency is around \$3.0 million too high. The calculation of the revised estimates is in the workbook Seed Attachment. Note that this analysis only corrects the movements data and estimated airfield revenue estimated by the Commission.

40 The Commission's figures for these variables have been used for comparison purposes only and their use should not be taken as acceptance by CIAL of their correctness. If further corrections to the WACC, asset value, or operating costs are made, then the excess returns disappear altogether.

Concluding comments

- 41 There are significant errors in the Commission and BARNZ's estimates of CIAL historic and future airfield returns. As I have noted, some of the errors have occurred because the Commission did not have access to all of the financial records which I have subsequently reviewed and described in this report. Some of the other errors, however, are inexplicable because the Commission did have the relevant information.
- 42 The overstatement of historic revenue, operating profit and returns,, and the understatement of expenses, in particular depreciation is significant On a cumulative basis, from 1989 to 2000:
- ? CIAL airfield revenue has been overstated by \$8.3 million;
 - ? CIAL airfield depreciation has been understated by \$8 million;
 - ? CIAL airfield expenses (excluding depreciation) has been understated by \$8.8 million;
 - ? CIAL airfield net operating profit (NOPAT) has been understated by \$18.6 million;
- 43 If the Commission were to use the airfield revenue supplied to it by CIAL, to correct its mistake over 1989 airfield revenue, historic average rate of return would be 9.6%, not 11.7%. Making more reasonable estimates of CIAL costs and depreciation reduces CIAL average return over the period from 1989 to 2000 to 6.5% - not 11.7%.
- 44 Given the impact of these revisions I do not accept, as the Commission did at paragraph 10.2 of its Draft Report, and endorsed by BARNZ at paragraph 31.2, that CIAL has "*exploited*" its "*market power in airfield activities by raising prices above the competitive level in a fairly sustained fashion*".
- 45 Regarding the Commission's assessment of excess returns and allocative inefficiency, simply using the correct movements data removes the first year's excess returns and allocative inefficiency. In the second year and beyond, the Commission's assessments of excess returns and allocative efficiency is around \$3.0 million too high. If further corrections to the WACC, asset value or operating costs are made, then the excess returns disappear altogether.