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THE PARLIAMENT OF THE COMMONWEALTH OF AUSTRALIA.

Pursuant to Statute  
By Command  
In return to Order

*J. M.*  
Clerk of the Senate.  
9 APR 1930

PARLIAMENTARY STANDING COMMITTEE  
ON PUBLIC WORKS.

REPORT

TOGETHER WITH

MINUTES OF EVIDENCE

RELATING TO THE PROPOSED DEVELOPMENT OF THE

CIVIL AERODROME

AT

WESTERN JUNCTION, TASMANIA.

By Authority

H. J. GREEN, GOVERNMENT PRINTER, CANBERRA.

## MEMBERS OF THE PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS.

(Seventh Committee.)

ANDREW WILLIAM LACEY, Esq., M.P., Chairman.

## Senate.

Senator John Braidwood Dooley.  
 Senator Matthew Reid.  
 Senator Burford Sampson.

## House of Representatives.

Malcolm Duncan Cameron, Esq., M.P.  
 John Curtin, Esq., M.P.  
 The Honorable Henry Gregory, M.P.  
 Edward James Holloway, Esq., M.P.  
 William John Long, Esq., M.P.

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Dated 5th December, 1929.

6. PUBLIC WORKS COMMITTEE—REFERENCE OF WORK—WESTERN JUNCTION, TASMANIA—DEVELOPMENT OF A SITE FOR A CIVIL AERODROME.—Mr. Albert Green (Minister for Defence) moved, pursuant to notice, That, in accordance with the provisions of the *Commonwealth Public Works Committee Act 1913-1921*, the following proposed work be referred to the Parliamentary Standing Committee on Public Works for investigation and report, viz. :—Development of a site for a Civil Aerodrome at Western Junction, near Launceston, Tasmania.  
 Debate ensued.  
 Question—put and passed.

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## CIVIL AERODROME, WESTERN JUNCTION, NEAR LAUNCESTON, TASMANIA.

## REPORT.

The Parliamentary Standing Committee on Public Works, to which the House of Representatives referred for investigation and report the question of the development of a site for a civil aerodrome at Western Junction, near Launceston, Tasmania, has the honour to report as follows:—

## INTRODUCTORY.

1. To encourage the development of civil aviation in Australia, it is the policy of the Department to provide an aerodrome in every capital city and at centres where the provision of an aerodrome is likely to increase the use of aviation generally. There is no aerodrome in Tasmania, and, in pursuance of its policy, the question of the provision of an aerodrome in that State has been under consideration since 1925. In December of that year the Superintendent of Aerodromes, after a careful examination of all possible sites, reported that the most suitable was that known as Hogarth's, at Western Junction, approximately nine miles west of Launceston.

2. When a valuation was being obtained of this property in 1926 a local valuer pointed out that the land was a rich clay soil, and in wet weather quite impassable for any vehicle, unless the surface were dressed with a view to preventing soil from adhering to the wheels of vehicles. He also suggested an alternative area which he considered could be acquired for about half the valuation placed upon Hogarth's property.

3. In 1927 a branch of the Australian Aero Club was formed in Tasmania and widely supported, and the question of the provision of an aerodrome became one of active policy.

4. Subsequently the Superintendent of Aerodromes and the Chief Civil Engineer, Department of Works, were instructed to report on all possible areas, and submit an estimate of cost. They reported that two sites were suitable, namely, Hogarth's property above-mentioned, and another site near the township of Evandale known as Von Steiglitz's Estate, and expressed a preference for the latter which, although four miles further from Launceston, could, on account of its lower price and the nature of the surface, be made available at a lower cost.

5. The estimates furnished were as follow:—

WESTERN JUNCTION.		£	£
Acquisition of 200 acres at £40 per acre .. .. .		8,000	
200 acres ploughed, harrowed, and rolled at £3 per acre .. .. .		600	
210 chains hedges to grub at £3 per chain .. .. .		630	
Drains—			
130 chains 6 in. at £4 per chain .. .. .	520		
50 chains 9 in. at £11 per chain .. .. .	550		
			1,070
Gravelling and rolling runways 6 inches deep, 16,000 cubic yards at 12s. 6d. per cubic yard .. .. .			10,000
Fencing .. .. .			100
			20,400
Total .. .. .			20,400

It was stated, however, that at the inception of the aerodrome, when only light machines were used, the gravelling might be cut down, and it is possible that one runway 440 yards by 60 yards would be sufficient with only a light coat of 3 inches of gravel—say 2,000 cubic yards at 12s. 6d., equals £1,250—making the total required at the inception £11,650.

## EVANDALE.

	£
Acquisition of 250 acres at £20 per acre .. .. .	5,000
250 acres ploughed, &c., at £3 per acre .. .. .	750
Grubbing .. .. .	250
Fencing, &c. .. .. .	250
Total .. .. .	6,250

6. Very careful consideration was given to the views of these two officials, but the technical advisers of the Minister for Defence were strongly of opinion that the question of accessibility was of almost paramount importance, and, as the Aero Club strongly advocated the nearer site, authority was given for the acquisition of Hogarth's land, and the necessary notice was published in the *Commonwealth Gazette*, No. 90, of 26th September, 1929.

## REFERENCE TO THE COMMITTEE.

7. On 5th December, 1929, the House of Representatives referred for investigation by this Committee the question of the development of this site.

## COMMITTEE'S INVESTIGATIONS.

8. The Committee visited Launceston and inspected the site at Western Junction acquired from the Messrs. Hogarth, and the site at Evandale, the property of Mr. Von Steiglitz, which also had been mentioned. Evidence was taken from the Director-General of Commonwealth Works, the Director of Commonwealth Lands and Surveys, officials of the Civil Aviation branch, the Chief of Air Staff, members of the Tasmanian Aero Club, private aviators and others. Plans were scrutinized, and the Committee endeavoured to inform itself fully on all aspects of the matter under consideration.

## NECESSITY FOR AERODROME.

9. Evidence placed before the Committee indicated that, following the example of other progressive countries, it was the aim of the Government to lay down a series of main air-ways to permit of the ultimate development of civil aviation in Australia to the highest degree possible. A system of air-ways for the mainland has been initiated, but, until a suitable aerodrome is prepared in Tasmania, it will not be possible to extend mainland services to that State or to provide opportunities for the encouragement of local flying.

There are indications that the inhabitants of Tasmania suffer from a sense of isolation from the rest of the Commonwealth, and it was represented that this feeling would be to a large extent dissipated if they could look forward to a linking up with the mainland by a regular air service.

10. Inquiries were made by the Committee to ascertain whether there was any prospect of the early establishment of an aerial mail service between the mainland and Tasmania, but the information obtained indicated that such a possibility was very remote. The Commonwealth at present pays a subsidy of approximately £30,000 a year for the carriage of mails by steamers which travel mainly at night time, so that it is claimed little time would be saved by an aerial service which would operate in the daylight hours; moreover, the bulk of mail matter is such that but a small proportion of it could be carried by air. It was ascertained that the considered opinion of the Postmaster-General's Department is that if any expenditure is to be undertaken with the view of accelerating mails it would be better to spend it on an improvement of the steamer services.

11. Information obtained from the Department of Defence indicated that, apart from the fact that the Air Force welcomes the establishment of landing grounds in any part of Australia, it is unlikely that this aerodrome would be of use for military purposes. The Committee learnt that no consultation had taken place between the Civil Aviation and Air Force authorities when the establishment of this aerodrome was in view; this lack of co-ordination is to be deprecated, as it is thought that when a new aerodrome is being prepared, a slight modification might make it suitable for both civil aviation and defence purposes in case of necessity.

12. Evidence was given that the Matthews Aviation Company is shortly to inaugurate a commercial and passenger service between Victoria and Tasmania, using a twin-engined flying boat built on amphibian principles. At the outset only two passengers will be carried, and it is proposed to make the journey once each way per week. It is impossible at the present time

to prophesy to what extent even this small beginning may eventually develop; but the fact that a private company is willing to make an attempt at establishing a regular air service, should go far towards influencing the Commonwealth to prepare the necessary terminal aerodrome in Tasmania.

13. The cultivation of an air sense, and the encouragement of private flying with the result that an increased number of trained pilots would be available in time of need, is a further advantage that might be looked for from the provision of the necessary facilities, and, under the circumstances, the Committee recommends that the aerodrome be established as proposed.

## SUITABILITY OF THE SITE.

14. The Committee felt itself in a somewhat invidious position, and was subject to some criticism by reason of the fact that it was asked to report upon this matter after the site had been acquired and so much publicity given locally that the establishment of the aerodrome was generally looked upon as a *fait accompli*.

15. Evidence placed before the Committee showed that the choice of suitable aerodrome areas in the vicinity of Launceston was limited to two, namely:—

- (a) Hogarth's property of about 200 acres, situated on a good road, about nine miles from Launceston, and within half a mile of the Western Junction Railway Station. This is good quality farm land, with soil of a heavy clayey nature;
- (b) Von Steiglitz's property, about 250 acres, on a road about 13 miles from Launceston, and one mile from the village of Evandale. This land is also farmed, but is of a poorer quality, and of a gravelly nature.

16. From inquiries made, the Committee is satisfied that it would have been possible to acquire Von Steiglitz's property for considerably less than Hogarth's, and even the Defence Department officials stated that Von Steiglitz's property is in every way more suitable for Governmental purposes than Hogarth's, excepting from the extremely important aspect of accessibility. The Works Department officials also reported that the preparation of this area for the use of heavy planes in all weathers would be much more economical than in the case of Hogarth's.

17. It was stated in evidence that for an aerial mail service, or a commercial mainland passenger service, the difference of 4 miles distant from Launceston was immaterial; and it is unlikely that the aerodrome will be extensively used for either of these services for many years.

18. The main argument against Von Steiglitz's property was that it would involve the members of the Tasmanian Aero Club in a long journey to and from the aerodrome from Launceston; and that the proximity of the village of Evandale in the direction of the prevailing wind offered a potential source of danger when inexperienced pilots were flying over the township.

The Tasmanian Aero Club strongly advocated the acquisition of Hogarth's property, and on 26th September, 1929, an area of 192 acres 2 roods 26 perches was purchased for the sum of £7,000.

19. Even at this late date, the Committee considered the advisability of disposing of Hogarth's property with a view to acquiring Von Steiglitz's, but, owing to the high price paid for the former land, realized that the loss inevitable in its disposal would bring the cost of Von Steiglitz's land to such a high figure as to offer little inducement in that direction.

20. After careful consideration of all the evidence received, and being convinced that Hogarth's property offers the best facilities for aerodrome purposes, the Committee is of opinion that action should now be taken to develop the area acquired.

## BUILDINGS.

21. It is the intention of the Department to erect on the property acquired in convenient positions:—

A hangar at an estimated cost of £850.

A club house at an estimated cost of £1,300.

The hangar is to be of small type similar to the one erected at Parafield, South Australia, with a 30 feet clear opening, and 35 feet deep. It will consist of a timber frame, galvanized iron roof, and brick paved floor.

The club house is to be a single story timber building, containing one lounge room 29 feet by 24 ft. 6 in., another lounge 30 feet by 10 ft. 6 in., one bedroom 16 ft. 6 in. by 11 ft. 6 in., and five other bedrooms 12 feet by 12 feet. There is to be a front verandah 32 feet by 10 feet, kitchen 16 ft. 6 in. by 11 ft. 6 in., and necessary lavatory accommodation for males and females. This building, when completed, is to be leased to the Aero Club at a rental charge of 6 per cent. of the cost of construction.

No provision is apparently made for the installation of a telephone in this building, but the Committee is of opinion that a telephone is an essential adjunct to the aerodrome, and should be installed without delay.

## ENGINEERING SERVICES.

22. *Water Supply.*—No water service exists in the locality, and it was explained in evidence that all the water required could be obtained by roof catchment, or if necessary by the sinking of wells. In the event of a larger supply being required at any future time, ample water could be brought from the South Esk River, about two miles away.

23. *Sewerage.*—No sewerage system exists in the locality, and it is stated that provision of a septic tank would be difficult on account of the flat nature of the country. It is proposed, therefore, that something in the nature of a Kaustine system will be used.

24. *Preparation of Aerodrome.*—To place the area in a fit condition for the use of aircraft, the Works Department estimates that the following expenditure will be necessary:

	£	£
Draining	1,115	
Subsidiary drainage	768	
Surface drainage	332	
Fencing	322	
Ground marks	33	
Clearing and removing hedges	521	
		3,091

25. *Runways.*—It was stated in evidence that on the area acquired it will be possible to set out runways of a length of 750 yards in practically all directions. Owing, however, to the constancy of the prevailing wind, it is stated that one runway in a north-west to south-east direction will be sufficient for a long time to come.

The Works Department, in reporting on this area allowed for the construction of four runways, each 500 yards by 50 yards, to be covered with 6 inches of gravel, at an estimated cost of £10,000. Although this might be necessary if the aerodrome were to be regularly used by the heaviest class of plane in all weathers, the Committee is strongly of opinion that no such provision will be needed for many years, if at all.

It is unlikely that on an average one heavy machine a day will land at Western Junction, or that more than eight or ten machines of a light type will be regularly operating on the aerodrome during the next five years, and, under the circumstances, the Committee considers that a general treatment of about 98 acres of the area acquired, and the ploughing, grading, rolling and grassing of one runway as suggested will be sufficient for many years.

## ESTIMATED COST.

26. The total estimated cost of the provision of the aerodrome at Western Junction agreed upon may be set down at approximately:—

	£
Purchase of site	7,000
Buildings—	
Hangar	850
Club House	1,350
	2,200
Grading and draining	1,115
Subsoil drainage	768
Surface drainage	332
Fencing	322
Ground marks	33
Clearing and removing hedges	521
98 acres ploughed, harrowed, and rolled at £3 per acre	294
Contingencies	415
	13,000
Total	13,000

## SAVINGS EFFECTED.

27. The recommendation of the Committee will result in a reduction of the original estimate submitted by £7,400.

A. W. LACEY,  
Chairman.

Office of the Parliamentary Standing Committee on Public Works,  
Parliament House, Canberra,  
22nd March, 1930.

*A. W. Lacey*

## MINUTES OF EVIDENCE.

(Taken at Canberra.)

TUESDAY, 17th DECEMBER, 1929.

Present:

Mr. LACEY, Chairman;

Senator Dooley

Mr. Gregory

Sonator Reid

Mr. Holloway

Mr. M. Cameron

Mr. Long.

Mr. Curtin

Arthur Percival, Director of Commonwealth Lands and Surveys, sworn and examined.

1. *To the Chairman.*—I am aware of the proposal to develop a site for a civil aerodrome at Western Junction, near Launceston, Tasmania. My department has had surveys made of the area. It comprises 192 acres 2 roods 26 perches of farm land, used chiefly for the growing of oats, peas, and other fodder crops. One portion of the area has been used for stud purposes in connexion with sheep-breeding. It is divided into paddocks, each of which is from 18 to 25 acres in extent, and has been intensely cultivated for the last 60 years. It adjoins the main road from Launceston to Western Junction, and is approximately 9 miles from Launceston. It forms part of two estates, one held by Rae Hogarth and the other at the present time by Stuart Hogarth. Rae Hogarth latterly has not worked his property to any great extent. He had in his estate 119 acres 1 rood 22 perches, and his property was severed by the main line of railway that runs from Launceston to Hobart. The area away from the homestead comprises 25 acres 1 rood 27 perches. Stuart Hogarth has about 229 acres 3 roods 23 perches on the south side of the railway line, and the residue of his property, about 104 acres 1 rood 35 perches, on the opposite side of the line. All negotiations have been completed for the Commonwealth to acquire the land. The legal formalities are practically finished, and the Crown Solicitor's representatives in Hobart are completing the settlement. The compensation is not exactly on an acreage basis, but in Stuart Hogarth's case the purchase price represents about £38 7s. an acre, based on a value of £34 an acre. We are taking his best paddocks; picking the eyes out of his property, and leaving him with broken country and the residue on the other side of the line, which is not a workable proposition. If we were taking the whole of his property the value would be at £25 an acre; but we have taken the very best paddocks, because they are the most suitable for the purpose for which we require the land. On this account we have had to pay a much higher value per acre for the portion we have taken. We have allowed for depreciation on the residue. Valuations of the land have been made by the Federal Taxation Department, and by Mr. Cheek, who knows the district thoroughly, makes valuations of pastoral lands for the State, and is one of the best accredited valuers of property in that district, in addition to owning a farm that he and his family have been working for 50 years. We have also had the advice of Mr. Charles Boyes, another farmer who is an expert valuer, and whose services are used by the State. Mr. Boyes would not supply a valuation straight out, because he was a personal friend of Stuart Hogarth's, but he gave me his opinion of the property. I have visited the locality. There is other land in the vicinity which is suitable for aerodrome

purposes, and we have had valuations made with respect to some of it. Frequently, valuations have to be amplified because the valuers do not go into the question of severance and depreciation when only a portion of an estate is being taken. We have had a valuation made of a property owned by John Charles Von Steiglitz.

2. *To Mr. Curtin.*—This land was highly spoken of by the valuer; but he was not an expert flying man, and was not acquainted with the requirements of the department. The different sites, that of Von Steiglitz's in particular, were placed before Cabinet for its consideration, and the decision was come to go ahead with Hogarth's.

3. *To the Chairman.*—The full area of Hogarth's property is 334 acres 1 rood 21 perches. We acquired from Stuart Hogarth 129 acres 0 roods 15 perches. Immediately south of the railway line both Rae and Stuart Hogarth's property is broken and somewhat hilly. The railway line severs both properties. The land which adjoins the railway is steep and rises to a tableland in a south-westerly direction. The land across the railway line is not comparable in value with the south-western portion of these properties. One can see from an inspection of the plan that, when the tableland portion has been taken out of Stuart Hogarth's property, the residue between the portion acquired and the railway, and that across the line, is of very little value as a working proposition. That is why the question of severance and depreciation was of such importance. We considered whether it would be a better proposition to acquire the whole of the land and avoid payment for severance. The remainder of the land, however, would have been of no value to the Commonwealth, and in regard to its disposal our hands would have been tied. We could only have sold it to the adjoining owners along the Esk Valley, and, as they would have known that we wished to get rid of it, they could have offered what price they liked. The only reason that I could do any business with Stuart Hogarth was because there was another farm with land not quite so good over which he was able to secure an option, and which he subsequently bought for about £23 an acre, thus enabling him to remain in the district and exist.

4. *To Mr. M. Cameron.*—The decision in regard to the purchase of this land rested with the Department of Defence. I brought the matter before them several times, and it was they who instructed me to proceed to acquire the land. The question of acquiring the residue of the land was raised, and the reply received from the department was as follows:—

2nd July, 1929.

Secretary,  
Department of Works,  
ACQUISITION OF AERODROME SITE NEAR LAUNCESTON,  
TASMANIA.

In reply to your memorandum L & S. 29/649, dated 6th June, relative to the above-mentioned subject, I desire to inform you that, in view of the present financial stringency, it is quite impossible to contemplate the acquisition of the residue of Mr. W. S. Hogarth's property lying to the south-west of the railway line, particularly as the bulk of such area is quite unsuitable for aerodrome purposes.

As regards the suggestion that Mr. Rae Hogarth's residence should be omitted from the land to be acquired, it is suggested that such omission might give the owner a claim for severance; but, apart from this aspect of the matter, this department desires to make use of the land and buildings thereon.

M. L. SHEPHERD, Secretary.

I again brought before them the objections raised by the owners, through their solicitors. Both owners were very unwilling sellers. On the 15th July, 1929, my department received the following letter from the Department of Defence—

Department of Works.  
PROPOSED AERODROME NEAR LAUNCESTON.—ACQUISITION.  
With further reference to your memorandum L. & S. No. 20/49, dated 5th June, I am directed to inform you that this department is anxious to have the aerodrome available for use at the earliest possible date.  
Consequently, it is requested that the acquisition of the area be gazetted as soon as possible, and that you please inform me of the date on which it is anticipated the department can enter into occupation of the area and commence the works necessary to prepare the site as an aerodrome.  
M. L. SHEPPARD, Secretary,  
Department of Defence.

The decision to purchase Hogarth's property was made by officers of the Civil Aviation Branch. I know that they made an inspection of all the available sites in the vicinity of Launceston, because I have been advised to that effect. The letter in which the decision to purchase Hogarth's property was conveyed to my department was dated the 11th April, 1929, and was as follows:—

Secretary,  
Department of Works,  
LAUNCESTON.—ACQUISITION OF AERODROME SITE.  
Advertising to your memorandum L. & S. 28/1304, dated 16th November, 1928, and in continuation of this office memorandum AS/12704, dated 20th October, 1929, on the above subject, I am to inform you that the question of the site to be acquired at Launceston for aerodrome purposes has been considered by Cabinet, and it has been decided that the aerodrome site should be acquired at Launceston, which is recommended in your memorandum of 10th August, 1928 (Hogarth's property) are to be acquired at the best price possible.  
As stated in my memorandum of 20th October, 1928, an amount of £8,000 has been made available from Civil Aviation Trust Account, Finance Authority No. F89, to meet the cost of this acquisition, and I am to request, therefore, that you please take the necessary action to acquire this property as expeditiously as possible.  
M. L. SHEPPARD, Secretary,  
Department of Defence.

Approval was granted by the Minister on the 23rd April, 1929. When I submitted the matter to the Minister for his approval, I mentioned that both owners were protesting against the acquisition. I stated that these protests were communicated to the Defence Department, and that the information should have been available when the matter was being considered by Cabinet. I referred to the question of severance and depreciation, and stated that, as the owners were not willing sellers, and had not intimated what price they would be prepared to accept, it would not be wise to make them an offer until there had been further negotiations. Prior to that, I had received instructions to acquire compulsorily; but, in view of the fact that both owners had informed me that they had had no discussion with any Commonwealth officer as to what their requirements were, and that they desired to confer with some one who would define their boundaries instead of having the best portion of their land arbitrarily taken from them, I saw Sir William Glasgow in August last, and asked him to give me permission to withhold action for compulsory acquisition until I had gone over to Tasmania. The price paid for the 192 acres which were acquired was a little over £36 an acre. I did not make an inspection of Von Steiglitz's property; I had no occasion to do so. I merely drew the attention of the department to reports relating to other sites. I should not care to express an opinion regarding the suitability of this site for aerodrome purposes; I would sooner leave that to the experts whose business it is. I cannot say whether Stuart Hogarth has a crossing over the railway line; but I know that Rae Hogarth has, because

I have seen it. The area of the narrow strip south-west of the railway line that has been left in Stuart Hogarth's possession is about 101 acres.

5. To Mr. Gregory.—For specific reasons I do not wish to acquire compulsorily, so I came to an amicable arrangement with the owners and their solicitors. The centre of the estate is about 10 miles by road from the post office at Launceston. The aerodrome will be used principally in connexion with mail services. The only other suitable properties are further from Launceston. The land in this locality is hilly and broken until you get to Western Junction and down near Perth. There are one or two sites in that direction which might be suitable. I did not make inspections to see whether there were any suitable sites closer to Launceston. All inspections were made by the Civil Aviation authorities.

6. To Senator Dooley.—If we had purchased the whole area, the cost per acre would have been approximately £25. We estimated the value of the remaining acreage that was not purchased at about £10 an acre. At the time when I was negotiating it was expected that the Department of Defence would commence to grade and form the land within at least two or three weeks. The value of the crops is included in the figure that I have given. I have taken as a basis £24 an acre. Then there is an amount of £300 for severance and depreciation, and £315 for 22 acres of peas, that were then about 2 inches high, and 20 acres of oats. Unfortunately, these crops were planted in the very place where the first works would be commenced, and I could not give any guarantee that the owners would be permitted to allow them to mature and reap the benefit of them. If the Commonwealth had acquired the whole of the land it would not have been able to sell the residue for £10 an acre. In the southwest corner, we have left Rae Hogarth his homestead and 3 acres of land. He is the owner in fee-simple of the lane-way which traverses the whole of the western boundary of his property. He has 25 acres of road 27 perches of land across the railway line, and 27 acres 1 road 3 perches south of the railway line. That is all steep country. The homestead and the 3 acres were taken into consideration in estimating the value of the remaining land at £10 an acre.

7. To Senator Reid.—My department acted as survey agents and buyers of the land. When the Defence Department selects a site it refers the matter to us for an approximate idea of the cost and an assurance that there are no legal difficulties in the way of acquiring it. When work is commenced on this property the crops will be destroyed. I do not know whether a start has yet been made. The first occasion when Rae Hogarth's property was under review was on the 5th February, 1926. We then turned it down. In the meantime the whole of the surrounding country has been examined. I do not know whether the Defence Department has yet done any work on the land. All that I know is that an officer of that department was over there the day that I completed the negotiations with the solicitors for both owners, and was marking on one of our contour plans the position of the ground that was first to be developed. That was last August. The matter has since been in the hands of that department.

8. To Mr. Holloway.—The only other site that was under review to any extent was that of Von Steiglitz. Those who are interested in flying in Launceston have always been anxious to get Hogarth's property, and have been rather perturbed at the thought that we might not go on with it. If any one takes the crops off I should say it will be Stuart Hogarth. It is a settlement by agreement. If settlement has been effected, we can remove the crops. He was given the right to graze his sheep there until such time as we

entered into occupation. I was not given any stipulated time; I was merely told that the department wished to commence the work within a few weeks. Hogarth asked me if he could have time to remove his crops. I could not hold up the whole of the working of an activity such as the Air Force by saying that he could have until, say, February next. If you have a crop growing on land, and I wish to put a factory on the site, it is natural that you should want some compensation for the crop. If you had not been paid and the crop was still growing it off. Of course, you commenced, you would take it off. If you had been paid a higher price because of it, I was authorized to make this purchase in April last. It has not yet been completed, because of certain legal difficulties. Stuart Hogarth is not the registered proprietor. It is his father's estate, and there are formalities to be gone through before the transfer can be completed. The money has been available since the day that I returned from Tasmania. There has been a lot of bargaining with regard to easements. I reserved easements in favour of the Commonwealth for drainage purposes. The arrangement was that we should take possession the week after I was there. If you look at the extract from the Gazette notice you will see that we have retained the right of drainage along the western boundary, and also along the north-eastern portion of Stuart Hogarth's property. All our papers are with the Crown Solicitor's agents in Hobart. It was to placate Stuart Hogarth that I came to an arrangement about the crops. I wanted to have some giving which would make him believe that we were doing him a concession. In the first place, the only price at which they would agree to negotiate was £40 an acre, and they were supported in that value by their own valuers, Cheek and Boyce. That was for the property as it stood, provided we would allow them to amend the boundaries as they desired. We gave them back certain areas. Personally, I am quite pleased with the deal; it is exceedingly satisfactory to the Commonwealth.

9. To Mr. M. Cameron.—I gave them permission to run sheep on part of the land. They may still be there. It was the intention of the Air Force authorities to enter into occupation in the following week. They had examined the land and marked off the place where they intended to start the work. There were only two paddocks that had crops; the others were where they intended to start the work. There were only two paddocks that had crops; the others were merely in fallow. Rae Hogarth had no crops. He said to me, "I have been anticipating the Commonwealth coming here for the last twelve or eighteen months, and therefore would not put a plough in."

10. To Mr. Curtin.—Rae Hogarth's homestead and surrounding buildings are shown in the left-hand corner of the plan. It is a very nice homestead. His son and daughter go to business daily in Launceston, and he wanted to keep the home. Originally we wanted to acquire it as a nucleus for the quarters. The estate is divided into paddocks. There are erecks on the ground falling towards the boundary line on the north-eastern boundary of the land to be acquired from eastern corner in the position shown. That Stuart Hogarth in the position shown. That line went through land which was under fallow, and partly planted with oats. They were adamant that the line should go from the north-eastern corner, fairly due south, for a distance of about 25 chains. As that was under crop, and fairly broken, it was decided to produce that line through and allow Stuart Hogarth to retain the north-eastern corner. All that was done because originally we were going to acquire compulsorily. I staved off the Gazette notice until I had made a settlement by agreement, so as to prevent any legal difficulties from occurring. Stuart

Hogarth's homestead was in the extreme south-eastern corner. He had there his haystacks, main quarters, and paddock for stud rams. I wired the Defence Department from Launceston, and asked if they would agree to that portion being excised. So long as it is within reason, I do not think that the price is a governing factor in the selection of a site. I have practically no choice in the selection of sites for aerodromes. But every site selected must be inspected by the engineers of our department to make sure that it is suitable in regard to drainage and for the purposes for which it is to be acquired. I cannot say for certain, which it is to be acquired. There have been cases in all cases in which inspections have been carried out in all cases in connexion with sites that have been acquired in north-west Queensland and the north-west of Western Australia. There have been times when we have rejected sites selected by the departments on account of their unsuitability. We do not look at the matter from the stand-point of price if there is only one site offering, or if that which has been chosen is suitable; but we do take into consideration the question of value. We acquire land for activities other than defence. There are many other factors in addition to price that have to be taken into consideration. The adjustments that have been made in the present case were dictated not only by a desire to obtain the land on the most favorable terms, but also to do the fair thing for the owners. Stuart Hogarth was annoyed because Commonwealth officers had examined his property but had never discussed with him matters which he wished to bring under their notice. Legally the agreement is as complete as it is possible to make it. If the Commonwealth should decide not to go on with the purchase, the owners could, if they so desired, claim compensation for a breach of agreement. Executive approval has been given to the purchase, and the owners have been told that settlement will be effected on a certain date. The papers have all been referred to the Hobart representative of the Crown Solicitor and the legal representatives of the owners. So far as we are concerned, the matter is completed.

11. To Mr. M. Cameron.—I believe that Stuart Hogarth would be only too pleased if, even at the last moment, the Commonwealth decided not to go ahead with the purchase. He said to me, "It is one of the worst days of my business I have done in my life." He was attached to his property. It was a valuable property, right against his homestead. His beautiful paddocks have been taken away from him.

Taken at Melbourne.

WEDNESDAY, 15th JANUARY, 1930.

Present:

- Mr. Lacey, Chairman;
Senator Sampson
Mr. M. Cameron
Mr. Curtin
Mr. Gregory
Mr. Holloway
Mr. Long
Colonel Horace Clowes, Brinsmead, Controller of Civil Aviation, Defence Department, sworn and examined.

12. To the Chairman.—I am aware of the proposal to establish an aerodrome at Western Junction, near Launceston; in fact, I was responsible for recommending its establishment. It is the departmental policy to provide an aerodrome at every large centre of population—certainly at every capital city, and at places where the provision of an aerodrome is likely to increase the use of aviation generally. There is no aerodrome at all in Tasmania. We have since 1924 been considering and investigating a site for an aerodrome, and

in 1925, when a branch of the Australian Aero Club was formed in Tasmania and widely supported, it became essential to establish an aerodrome for the use of its members, as well as to assist commercial aviation generally. There are no aeroplanes in normal and commercial use in Northern Tasmania, and there will be none until an aerodrome is provided.

13. *To Mr. M. Cameron.*—There are places in that locality at which planes could land. There are few places in Australia where aeroplanes cannot land, but it is necessary for aeroplanes carrying mails and passengers to land and to take off from an aerodrome in safety.

14. *To the Chairman.*—When the aerodrome is established it will not be used extensively until a regular service is organized. There are various persons who are trying to organize a regular service. Matthews Aviation Company is proposing to provide a service even without the establishment of the aerodrome. It proposes to use an amphibian, which will fly regularly between Melbourne and Tasmania. Once an aerodrome is established in Tasmania there would be a reasonable number of flights between Victoria and Tasmania, particularly in the summer months. There have been overtures in that direction, but the main condition is that no service will be provided until an aerodrome is available. I was responsible for the recommendation that the proposed site for the aerodrome should be acquired. There were at least five other sites suggested and they were examined before my final recommendation was made. One property belonged to a man named Woolhough. There were several other properties, but at the moment I cannot give the names of the owners. They were inspected by the Superintendent of Aerodromes, Captain Johnson. The following is a statement that I have prepared for the committee:—

#### LAUNCESTON AERODROME.

The following remarks are submitted in connection with the investigation of the aforementioned Works Committee on the subject of the development of a site for a civil aerodrome at Western Junction, near Launceston, Tasmania.

The necessity for the provision of an aerodrome in Tasmania has been realized for some years past, and the matter has been receiving attention since the latter part of 1925. In December, 1926, the Superintendent of Aerodromes (Captain Johnson) made a careful examination of all possible aerodrome sites in the vicinity of Launceston, and submitted a comprehensive report. In the opinion of Captain Johnson the most suitable site inspected by him was that known as Hogarth's Western Junction, approximately 9 miles west of Launceston. This is the site that Cabinet subsequently approved for acquisition on 26th March, 1929, and which was gazetted as acquired on 24th September, 1929. Subsequently to the 1925 report by the Superintendent of Aerodromes, the Works and Railways Department were requested to obtain a valuation of the Western Junction area, consisting of about 300 acres. Valuation given was £8,338. A saving of £800 would be effected by omitting an area of about 40 acres of land in the south-west corner on which was erected Mr. Hogarth's homestead. Works and Railways Valuator at the same time pointed out that in these properties (Kirkdale-Cowley—until a site) are exceptionally rich land, a rich clay soil, and in a wet winter quite impassable for any wheeled vehicle unless the surface is dressed with a view to preventing soil from adhering to the wheels of vehicles. He also suggested an alternative area, which he had inspected, which he considered could be acquired for about half the valuation placed upon the Hogarth property. Careful consideration was given to the remarks of the local valuer, but the technical opinion was that no such trouble as anticipated need occur provided the land was purchased some time before it was required for use (in order to allow the surface to be prepared by staking and become grassed). No difficulty would be experienced in establishing a cover of grass in view of the richness of the soil. The alternative area suggested by the valuer, owned by Mr. J. Woolhough, was inspected subsequently and found to be unsuitable for aerodrome purposes.

The investigations that took place during 1925, 1926 and 1927 regard to Tasmania were undertaken in accordance with the practice of the Department in securing as thoroughly conversant as possible with areas where landing grounds must

eventually be provided, but towards the middle of 1928 the inquiries had become more specific on account of the formation of a Tasmanian Aero Club. The provision of an aerodrome then became within the category of "active policy" and still further search was made. The Superintendent of Aerodromes went to Tasmania in April, 1928, and made further inspections both of the Hogarth property and all others that were considered to be possibilities. This re-examination confirmed the opinion previously held, that the Western Junction area was superior to any other in the vicinity of Launceston. In view of the time that had elapsed since the previous valuation had been made, the area was submitted to Cabinet, yet another survey was made of all possible areas by the Superintendent of Aerodromes, accompanied by Mr. Connell, Chief Engineer of the Department of Works and Railways. Although these officers reported on Hogarth's property and also on one situated near the township of Evandale and known as Von Steiglitz's Estate, and gave their preference of choice to the latter, it was agreed that either of these properties could be made into a first-class aerodrome—Western Junction site being more expensive but nearer to Launceston. The approximate cost of each property was estimated by the Principal Civil Engineer as follows:—

WESTERN JUNCTION.	
200 acres, at £40	£ 8,000
200 acres ploughed, harrowed and rolled, at £3 per acre	600
210 chains hedges to grub, at £3 per chain	630
Drains—50 chains, 8 inches, at £4 per chain	200
50 chains, 10 inches, at £1 per chain	50
Gravelling and rolling runways, 6 inches deep (1500 yards by 200 yards)—10,000 cubic yards, at 12s. 6d. per cubic yard	10,000
Fencing	100
Total	20,400

At the inception of the aerodrome where only light machines will be used, the gravelling might be cut down, and it is possible that one runway 440 yards by 50 yards would be sufficient with only a light coat of 3 inches of gravel—2,000 cubic yards at 12s. 6d.—£1,250, making total required at inception £11,550.

EVANDALE PROPERTY.	
250 acres, at £20 per acre	£ 5,000
250 acres ploughed, &c., at £3 per acre	750
Grubbing	250
Fencing, &c.	250
Total	6,250

Very careful consideration was given to the views of these two officers, and the whole question was submitted for final consideration prior to approval in the following terms:—  
"For some time past search has been made for a suitable area near Launceston that is suitable to form into an aerodrome. The choice appears to be limited to one of two areas:—

(1) Hogarth's property—about 9 miles from Launceston, on a good road within 1 mile of Western Junction Railway Station. It is farm land of good quality. To acquire and prepare it for use of the Aero Club would require a large amount of cost approximately £12,000. In course of time, when heavy commercial triple-engined aircraft are in general use, an additional expenditure of £5,500 would be necessary for the formation of prepared runways.

(2) Von Steiglitz's property—about 13 miles from Launceston, also on a good road. It is reported that this ground, being of a gravelly nature, is more suitable for aerodrome purposes than is Hogarth's. Acquisition and preparation for aircraft of up to medium size would cost £6,250. There appears to be no doubt that the Von Steiglitz property is, in every way, more suitable for governmental purposes than Hogarth's, excepting from the extremely important aspect of accessibility. My technical advisers are very strongly of opinion, however, that the accessibility of aerodromes to the centres that aerial services are designed to serve is almost of paramount importance, and that, unless this can be ascertained, the suitability of an aerodrome can be more than 9 miles distant from the city, without discounting unduly the time otherwise saved by transport of mails and passengers by air."

This view is strongly supported by the Tasmanian section of the Australian Aero Club, who write as follows:—

"As regards the aerodrome site, my committee consider it essential that the property to be acquired should be as close to Launceston as possible, and they strongly recommend that the property at Western Junction, known as Hogarth's, should be acquired, as it is only 8½ miles from the city and 7-10ths of a mile from the Western Junction Railway Station, which is the meeting point of the two main lines from Hobart to Launceston and Burnie to Launceston.

The other site, which we understand is being considered as an alternative, is 3 miles further distant from Launceston and 1 mile distant from the Evandale Railway Station, on the Hobart railway line. The main advantages of the former site are very apparent, namely:—

- (1) An additional 6 miles is avoided.
- (2) From a commercial aviation point of view it is situated close to the main railway junction at Western Junction.
- (3) The nearest township (Evandale) is 2 miles distant, whereas it is barely ½ mile distant from the latter site.

For your information, I might mention that the membership of this section at the present time consists of 119 flying members, who paid £6. subscription, and 25 associate members, who paid £3.3a. subscription, and the club funds amount to a total sum of £1,220."

Approval was then given for the acquisition of the Hogarth property.

The acquired area is shown by green border on plan herewith, and an agreement has been entered into with the Tasmanian Aero Club whereby the club obtains departmental assistance to enable flying training to be undertaken. The necessary equipment for issue to the club is held by the department, and the club is extremely anxious to commence operations as soon as the aerodrome, or a sufficient portion of it can be cleared and made available.

The final cost of acquisition of the Hogarth area was £7,000. In order that the area may be properly prepared for aviation flying and grading of the surface should be undertaken, also drainage and fencing and the erection of a club-house and hangar for use by the local Aero Club. These works are estimated by the Works and Railways Department to cost £5,500, made up as follows:—

Preparation of aerodrome	£ 3,400
Hangar	850
Club-house	1,300
Contingencies	1,900
Total	6,550

The paramount feature in deciding on Hogarth's property was the distance from Launceston and its accessibility. On the information that was before us in making our recommendations, we decided, that, outside the question of accessibility, Von Steiglitz's property was more suitable for our purpose. The difference in distance between the two properties is 3 miles. Both properties are situated on good roads. The area of Hogarth's property is 198 acres and the whole of it is necessary for the purposes of the aerodrome. An area of 200 acres is almost the minimum for a first-class aerodrome nowadays. It would be preferable to have a larger area if a lot of traffic were anticipated. From our knowledge particularly of what is being done in America and Europe, we appreciate absolutely the fact that no natural surface can be used by heavier craft unless preparation is made for runways. I am quite safe in saying that the expenditure of £10,000 to be made at Western Junction site for the preparation of runways would be necessary if the Evandale or any other property had been acquired. The heavier craft are now being loaded up to 10 or 12 tons and the impact of that load coming on to a natural surface, with the drag of the tail skid or wheel behind, is far greater than the force exerted on any lorry now in use. It is easy to understand that no natural surface could withstand such impact day after day and week after week. Runways would have to be provided on any site acquired for aerodrome purposes. When this aerodrome is established in Tasmania I estimate that it will serve for at least 25 years. It is a difficult estimate to make

because the progressive increase in aviation is so great and one can hardly say what will happen in ten years' time. There is room for considerable expansion on Hogarth's property. The scheme is tentative at present. The general layout has been prepared by the Works and Railways Department and is its responsibility. I understand that Mr. Hill will deal with that aspect of the proposal. On the site a small hangar costing £260 and a club house costing £1,300 are to be erected.

There is no provision in the estimate for water under the item of Contingencies. There is no water supply within a reasonable distance. Hogarth's property is supplied by a well. As far as an aircraft site is concerned water is not of great importance. The engines are air-cooled and the only water required is for washing down the machines and for drinking purposes. We use chemical fire fighting apparatus where water is not available, and for sewerage we use the Kaustine system or something of that nature.

The aerodrome as suggested by the Works and Railways Department will give a run of not less than 750 yards in every direction. The prevailing winds are extraordinarily regular because on 92 per cent. of the days of the year the wind blows either from the north-west or south-east, always in one line. Fortunately, that is in line with the best surface of the aerodrome. The aviators will have a remarkably good place to operate from and the ground will need really little preparation. I consider that the area acquired is suitable for aerodrome purposes and the best site available, because of its proximity to Launceston. If Hogarth's and Von Steiglitz's estates were situated at similar distances from Launceston, I should prefer the latter.

15. *To Senator Sampson.*—The proximity of the Evandale village to Von Steiglitz's property would be an obstacle because the village is only half a mile distant. Those using the aerodrome would have to take off and land immediately over the village and that would be not only a source of trouble but also a real danger to both the populace and the users of aircraft. If Hogarth's property is half a mile distant from Western Junction station, there is a railway station about one mile distant from the Evandale property, but it is served by about one train a day whereas the Western Junction station has a frequent train service. The objection to Von Steiglitz's property is the annoyance and noise that would be occasioned by the machines flying over the village of Evandale. In addition, there is the danger of accidents. It is about two years ago since aeroplanes were acquired for the Aero Club. It is at present has three Moth machines. The members of the club have been waiting two years to start their instruction in flying. The enthusiasm shown by members of this club has been quite exceptional, more so than that of any other club of which I have had experience.

16. *To Mr. Curtin.*—The aerodrome at Maylands, Western Australia, is situated about 5 miles from Perth. In South Australia the aerodrome is at Parafield, which is about 10 miles from Adelaide and is on a very good road. The aerodrome there is farther out than we like. It is right at the extreme limit, but we could not get any suitable site closer to the city. Eventually the aerodrome will be used for mail and passenger services between Tasmania and the mainland, but in the early stages until some large organization comes into being the main consideration will be the training of pilots. Ultimately interstate communication will be the main consideration. We have given a lot of consideration to the establishment of a seaplane service, but the drawback to that is the prevalence of fogs in the Tamar River and in the low lying portions in the vicinity of Launceston. Fog is the most dangerous thing with which we have to contend in aviation. We try to establish aerodromes in localities as far away as possible

from fog areas. For that reason we established an aerodrome at Essendon rather than at Port Melbourne. In Tasmania we gave grave consideration to the fact that Hogarth's property is well away from the low lying areas. For airplanes and flying boats Hobart is an ideal locality, but that is not the case at Launceston. The indications are at present that any aerial mail service between the mainland and Tasmania will be carried out by land machines and not by seaplanes. The chain of islands between Wilson's Promontory and Tasmania could be made available for forced landings although those would not be frequent if triple machines were used. It would be more economical and possibly even safer to carry out the Tasmanian service with the more advanced land machines than with seagoing aircraft. With the establishment of an aerodrome at Launceston it will not be necessary to establish one at Hobart. That aerodrome will be the only one required until the air becomes a great deal more used than it is at present and the necessity becomes apparent for an additional aerodrome further south at Hobart. In choosing an aerodrome site we study every aspect, including that of economy.

17. *To Mr. Gregory.*—When the route is properly prepared it will be quite safe for ordinary aeroplanes to cross from the mainland to Tasmania with mails and passengers. There will be no sea crossing of more than from 25 to 30 miles between possible landing places. The Straits of Dover are crossed from 30 to 50 times a day by land flying machines.

18. *To Mr. Curtin.*—The establishment of an aerodrome at Launceston will not at present occasion any extra expense in the preparation of landing grounds on the chain of islands. Ultimately some expense in that direction will need to be incurred. The population on the largest of those islands would benefit considerably by an air service and one will certainly be warranted in the course of time.

19. *To Mr. Gregory.*—Ultimately landing grounds will be required at the islands so that machines in trouble may land safely, but there would be little difficulty experienced in flying across Bass Strait. I do not anticipate that in the very near future there will be an air mail service between the mainland and Tasmania. There should be an aerodrome at Launceston if there is to be any aviation in Tasmania at all. We have considered the question of establishing an aerodrome at the capital city of Hobart, but we could not find a site in its vicinity comparable with the one in the vicinity of Launceston. A number of flying enthusiasts at Hobart have joined up with the Launceston Aero Club. There has been no suggestion that the aerodrome should be established at Hobart. Our policy is to have aerodromes established on approved aerial highways. Launceston is an approved aerial highway. An aerodrome at Bendigo or Ballarat would not be in the same category although there are aerodromes at both places established by the respective municipalities. It is probable that in the course of time a company will be formed to establish an aerodrome at Hobart. As far as I know the Government has not gone so far as deciding to establish an aerial mail service between Tasmania and the Mainland. There is a somewhat definite settlement around the aerodrome at Mascot, and we do not like that position. Fortunately at Mascot machines can take off in two or three directions and they do not fly immediately over the houses.

20. *To Mr. Holloway.*—Our branch does not work from the point of view that the development of aviation is part and parcel of the Australian defence scheme. We realise that the normal and assisted growth of civil aviation must have a tremendous value for defence purposes, but we claim that it should not be developed from the point of view of being a military factor at all. The more the development of aviation is laid down as being a defence factor the slower will aviation grow.

That is becoming more and more apparent in other countries, because civil aviation is making more rapid growth where divorced from defence. With the extinction of America, civil aviation has been developed by other countries with Government assistance. In America, although the Government gives a great deal of assistance and spends an enormous amount of money on services ancillary to aviation, it does not spend money directly on encouraging aviation at all. America will not buy aerodromes. It has made it a statutory obligation on the part of the Bureau of Commerce that it will not expend any of the money allocated to it on the purchase of aerodromes. The aerodromes in America, although the Government gives a great deal the exception of purely military aerodromes which cannot be used for private purposes. By private enterprise I mean instrumentalities other than Government. The aerodromes are constructed largely by municipalities, and their operations in this direction are increasing rapidly because they realize that profits can be made from the ownership of aerodromes. I think that civil aviation should be controlled by the Commonwealth Government. Every other country in the world has control of civil aviation, even in America where the aerodromes are conducted by private enterprise. The Government of that country has control of registration of aerodromes, registration of machines and licensing of pilots. It is laid down by the *International Convention*, to which Australia is a party, that all the signatories to that Convention must carry out the policy of Government control of civil aviation. In actual practice there is in Australia no overlapping of the authorities of the Commonwealth and the States. The States had tacitly handed over their powers to the Federal Government without passing any legislation for that purpose.

21. *To Mr. Gregory.*—On several occasions that subject has been brought before the Committee, and a bill has been drafted and approved by all the States. The provisions are not absolutely identical in each case, but all the States have agreed to introduce a bill to hand over aviation control to the Federal authorities. That legislation has not yet been actually proclaimed although it must be proclaimed before the agreement comes into force. The Commonwealth Government will have an overriding authority in respect of every form of aerial activity so long as it has control of permanent aerodromes and the licensing of machines and personnel. Of course, in case of emergency, under our defence laws the Commonwealth could take full control of aviation at any time. It has been necessary for the Government to assist in the development of commercial aviation, but it is now being widely realized that that assistance is temporary and that in less than five years' time there will be no more expenditure in the form of direct assistance to any aviation company in Australia. It is of great importance from the Government's point of view to give a little artificial fertilization to civil aviation until the dead centre is overcome, and after that is accomplished aviation will have to develop without direct Government assistance. I have no doubt that the Government in giving assistance have contemplated continuing it only for a short period. It is just as important to build up a body of commercial pilots so that if necessary, they may assist in the defence of Australia in time of war, as it is to develop a large mercantile marine to assist the Navy in war time. A navy without a mercantile marine would be impotent after a few weeks' operations, and it is very necessary that we should have a large and increasing body of young pilots and mechanics to call upon in time of need. The construction of the hangar at the aerodrome is a matter entirely beyond my province. When a hangar is required we obtain approval for its erection. The money is made available by the Defence Depart-

ment, and its construction is placed in the hands of the Works and Railways Department. It is merely a galvanized iron structure with steel or iron members. There is no canvas work connected with it at all.

22. *To Mr. Curtin.*—It is possible that this aerodrome would be used at least for a year for the purpose of mail communications with the mainland. In recommending this aerodrome we took into consideration the importance of mail communication with the mainland and the desirability of providing instruction for members of the Aero Club. Every aspect was taken into consideration. The policy laid down and approved by Cabinet was that there should be a certain number of approved aerial highways, of which Tasmania was one. We realized that in a place like Australia, with its huge areas, the Government cannot accept the responsibility of placing aerodromes at many of the places at which we should like to see them. We know in the first place that the money is not available. But we go further than that. We say that it is not sound policy that the Government should provide all the aerodromes required in Australia. Whenever a township is laid out it should be mandatory to reserve an aerodrome area. If all aerodromes had to be provided by the Government progress would be much slower than if they were provided by municipalities and private enterprise. With one or two exceptions the aerial highways are the air lines joining the capital cities. We consider that for our purposes aerodromes should not be situated more than nine miles from a city. Any distance beyond that we consider to be too remote. I do not know the exact distance of the Croydon aerodrome from the General Post Office in London, but I know that in the opinion of the authorities in England the distance is too remote. There is a large settlement around Croydon, but the establishment of any aerodrome must attract a small settlement almost immediately. I believe Croydon is about 15 miles from London, and when the aerodrome was established it immediately attracted a settlement. The Director-General of Civil Aviation in England, Sir Seldon Braucher, has received bitter complaints from the residents in the vicinity of Croydon because of the noise of the machines flying overhead and the danger to the residents from flying accidents.

23. *To Mr. Gregory.*—From the point of view of the carriage of mails and interstate passengers, it is not desirable to have an aerodrome too remote from a city. In the United States of America the administration of aerodromes is almost wholly under the control of municipalities and public bodies generally. The aerodromes are not under the direct control of the Government, but it may decide whether an aerodrome is to be used or not. If it considers that an aerodrome is unsafe the licence may be withdrawn. We have power to do that in Australia. Our air and navigation regulations lay it down that no area should be used for the purpose of a commercial aerodrome unless it is licensed for that purpose. We have that power under the Trade and Commerce Act. We are asking that legislation be passed by the States to place the control in the hands of the Commonwealth because the position is not quite clear at present. We use the powers under our regulations until they are challenged and they have not been challenged yet. It has been held by the Crown Law authorities that an aeroplane from its very nature is a potential interstate instrument. It would be most valuable from the point of view of civil aviation if this Committee recommended that the States should pass legislation to place complete aviation control in the hands of the Commonwealth Government. There is power under the Constitution for the States to delegate such powers.

24. *To Mr. Holloway.*—I am not in any way associated with the military scheme. It is laid down in my

contract with the Department that I am not under the control of the military authorities. I gave evidence before the Constitutional Commission and the opinion was expressed there that complete control of aviation should be transferred to the Commonwealth.

(Taken at Melbourne.)

THURSDAY, 16TH JANUARY, 1930.

Present:

Mr. Lacey, Chairman;	
Senator Sampson	Mr. Gregory
Mr. M. Cameron	Mr. Holloway
Mr. Curtin	Mr. Long.

Captain Edgar Charles Johnston, Superintendent of Aerodromes, Civil Aviation Branch of Defence, sworn and examined.

25. *To the Chairman.*—I am aware of the proposal to establish an aerodrome at Launceston. I made a number of investigations for that purpose spread over some four or five years. The whole of the environs of Launceston were inspected by travelling round in a motor car and climbing the hills so as to get a general idea of the country within at least 10 miles of Launceston. The likely looking spots were investigated in more detail by walking over them and making a careful examination. Hogarth's property was selected as the best site. I do not know of any site closer to Launceston that would be suitable for a permanent aerodrome. There are other sites, which, if as close to Launceston as is Hogarth's property, would be more suitable. Both Von Steiglitz's and Hogarth's properties could be made into suitable aerodrome sites, but the former is 13 miles from Launceston, whereas the latter is only 9½ miles distant. It is a matter of opinion whether the additional cost of preparing Hogarth's property is justified in order to have greater accessibility. It may be argued that when one starts a journey of 10 miles in a motor car little difference is made in travelling an additional 3 miles, but, on the other hand, the saving in time and expense by travelling only 10 miles instead of 13 miles may more than compensate for any advantages offered by Von Steiglitz's property. I consider it highly desirable that all terminal aerodromes should be as close as possible to the heart of the city. During the next five years a number of aircraft will be operating at the aerodrome. The Aero Club will certainly operate there. Judging by the growth of other Aero Clubs, I should say that within the next five years eight or ten machines will be in constant use undertaking joy and passenger flights. There is also the probability of a service being inaugurated between the mainland and Tasmania within that time. The roads to both Hogarth's and Von Steiglitz's properties are good enough to allow a car to travel at 30 miles an hour. It would, therefore, take seven minutes to travel the additional 3 miles to Von Steiglitz's property. As the cost of a hire car is 3s. per mile, the additional cost would be 7s. each return trip. If travelling in one's own car, the additional cost would be about 1s. 6d. The ideal aerodrome would be situated amid open fields, but there is really little danger from accidents because of an aerodrome's proximity to a village. Both these sites have good surrounding country. Von Steiglitz's property is the better site, excluding altogether the factor of distance. The advantage of distance in the case of Hogarth's property would justify the expenditure of at least an additional £10,000 in the preparation of the ground for aircraft purposes. Hogarth's property would probably require more expenditure for preparation of ground,



even for summer use, and wet weather runways would probably need to be provided at Hogarth's property at an earlier stage than would be necessary in the case of Von Steiglitz's property. The cost of preparation would be greater and more immediate on Hogarth's property. More clearing and levelling of ground would be required. The ground at Hogarth's is of a more clayey nature than that at Von Steiglitz's, and heavy aircraft would not be able to operate there in wet weather unless runways were provided. The wet weather runways have a much better face of Von Steiglitz's property than a much better face of Von Steiglitz's property has a much better face of Von Steiglitz's property, particularly in bearing, but the consensus of opinion, particularly in the United States will stand constant traffic by heavy natural ground and that specially prepared runways must be aircraft, and that irrespective of the nature of the ground, provided it respects the difference in the soil will eventually be of much importance. It may be of some importance in the early stages when comparatively light machines are being used. That area of Hogarth's property purchased by the Government is 192½ acres. The area purchased at Mascot is 141 acres, but the whole of that is not at present available for landing purposes. The area occupied by the Parsfield aerodrome in South Australia is 225 acres, and by the Maylands aerodrome in Western Australia about 81 acres. The aerodrome in the Booklee (Archerfield) aerodrome in Queensland is 298 acres. It is to be 300 acres. I cannot say offhand what is the area of the Croydon aerodrome near London.

26. To Mr. Curtin.—I shall supply the committee with a statement showing the areas of the various aerodromes at the capital cities, and those portions that have been made available for use by aircraft at the present time.

27. To the Chairman.—At Parsfield we are increasing the runway east and west on account of the high tension wires on the main Gawler road. I consider it necessary for the Commonwealth to have the whole of the area acquired at Launceston, although some of it will not be used in the early stages.

28. To Mr. Curtin.—Hogarth's property was purchased by the Commonwealth Government on the recommendation of Colonel Brinsmead, mainly, I believe, because of the advantage of distance. The tendency in America is to prepare all natural surfaces so as to give a suitable runway for heavy aircraft. It may not be necessary to prepare immediately runways at the Launceston aerodrome for the use of heavy aircraft. Probably that will have to be done within five years. It is uneconomical for machines to carry petrol for more than about 250 miles. The advantage of a heavy plane is that it carries a bigger load of passengers and commercial products. I regard any air service established between Tasmania and the mainland as a potential rival of sea carriage so far as passengers are concerned. The number of passengers that would be carried on each flight would be about a dozen. For the company it would be more economical to use heavy machines carrying a given number of passengers in less frequent flights, but it would be more convenient for passengers if lighter machines giving a more frequent service were used. The factor of safety would be much the same in both cases. It would depend really on the type of machine used. Quite a number of our ground operations have shown the need for special runways. In Queensland we have prepared grounds at Longreach and Blackall. We did put down a preparation of one at McKinlay, but it blew away. That was the only preparation that we could get at that place. I should say that a satisfactory air service could be maintained between Tasmania and the mainland by the use of amphibians. Flying boats are the most suitable for crossing the water, but they are under a

great disadvantage when it comes to handling them on the water. A lot of inconvenience is occasioned to passengers. Often the flying boats have to land in a choppy sea, and when being transferred to land in a choppy sea, and when being transferred to land in a choppy sea, the passengers get wet. Then the flying motorboats have to be taken to the shore and expensive wharves have to be provided for them. A number of men have to be employed to attend to the machines, and if the hull springs a leak it takes about 30 or 40 men to get the machine ashore. That is not economy. An amphibian machine would give the maximum safety, but fitted with wheels would be efficient as a purely the extra gear would not make it as efficient as a purely flying boat. The type of commercial machine that would be best suited for defence purposes would be a seaplane rather than a land plane. Probably an amphibian would be preferable. The aerodrome at Launceston would always be used by the Aero Club, and for its purposes there would be no need to provide a heavy preparation of runways. That would cut down expense considerably.

29. To Mr. Gregory.—The work of our department is mainly in connexion with the development of civil aviation. It would be our function, primarily and solely to recommend to the Government, if it were inaugurating a scheme of the type of machine that should be used for civil aviation. I should say that if a mail service were required, it would be within the scope of our department to say whether it should be carried out by seaplane or by land plane. The extra weight occasioned by attaching wheels and undercarriage to a flying boat would be considerable, in fact a good many hundreds of pounds. To our knowledge there is an entirely successful machine of that type available. Of course it would be more expensive to operate. We are preparing 98 acres of the aerodrome site for landing purposes. There is a little rise in the north-east corner and also a quite distinct rise in the western corner, which would be quite useless for landing purposes, but those positions afford an ideal and natural vantage point for the public to watch flying. Practically the whole of the area will suitably be available for flying purposes. Of course certain areas have to be reserved for building, parking, and public purposes. The whole of the area is required. I do not think that there are any planes in Tasmania to-day. I have flown over portions of Tasmania in a flying boat from Melbourne. I am aware of the particulars that Colonel Brinsmead gave the committee yesterday in regard to buildings, and I do not think that there is anything exceptional or extravagant in the scheme. The buildings are mostly at the sketch stage. The hangar is identical with the one erected at Parsfield. It is a small hangar with a 30-foot clear opening and 35 feet deep. It is to house the small machines for the Aero Club. The hangar will have a wooden frame throughout.

30. To the Chairman.—The Aero Club will not be charged rental for the use of the hangar.

31. To Mr. Gregory.—We would not normally provide accommodation in which to house planes engaged in any mail service. It is customary for the contractor to provide his own accommodation. That is the position in regard to all services subsidized by the Government. The hangar will probably have a concrete floor. No provision is made for a water supply. A good water supply could be obtained only by pumping from the South Esk River, about 2 miles distance from the site, and I do not think that would be justified at present. We can get local water by sinking wells. A house is situated in the western corner of the area and the occupants assure me that the well water which they use is good and reliable. I do not think that we could get sufficient water for fire-fighting purposes by erecting a tank and windmill. There is no proposal present for the prevention of fire and I do not think

the scheme justifies it. The club-house will cost about £700. The Aero Club will be charged a rental of 8 per cent. on the actual cost of the building, and it will be required to keep it in proper order, and the Commonwealth will have control of the area, with the exception of that section which is set apart for Aero Club purposes. The expense of putting a man in charge will not be justified at the early stages. We employ men at all main aerodromes. There is the possibility of cattle and horses being turned on to this area to grass. If we do not have our own man in charge of the property, we would certainly make arrangements with the Aero Club or some person to restrain people who have no business there from entering the grounds.

32. To Mr. Long.—The site is some 9 or 9½ miles from Launceston. It is bounding a main road, and is within ¼ mile of Western Junction siding, which is the junction of the Launceston-Hobart line with the spur line to Burnie and the west coast. In wet weather the water that pours down from the opposite rises on the property practically be no drainage diffi-culties arising from the nature of the ground on a north-east and north. On the south-west there is a moderate rise. Consequently there is a comparatively large catchment area draining towards the aerodrome, but it is intercepted by the main road and can be satisfactorily dealt with. The very flat area will need some drains to divert the water which collects on it through rain falling on the aerodrome itself. The average rainfall in the district is about 40 inches. I am quite satisfied that we could cope with the water by drainage. Of course in wet weather the ground will be inclined to be sticky because the soil is of a clayey nature. A commercial service between the mainland and Launceston must eventually be provided, and, because of that, I think that the Commonwealth Government would be justified in expending money to make the aerodrome suitable for commercial planes. In that case the Commonwealth would charge fees and make a revenue from the aerodrome. It is making a small revenue from existing aerodromes. The area of the proposed aerodrome will be sufficient for all time. We do not know what development will take place in 20 or 30 years' time, and for that reason we have acquired a large area. A fairly big machine would be needed to give a service between Tasmania and the mainland. It should have more than one engine. We lay down that the minimum runway must be 600 yards for the use of all types of aircraft operating, but the actual area treated may be a little less. It might be necessary to surface only 500 yards of the runway. The width should be at least 150 yards, but the prepared surface need only be about 33 yards. That would be the minimum. That portion of the runway which is not surfaced would have to be reasonably drained and rolled to a solid surface. On this site we can safely limit ourselves to the provision of a runway in one direction only. I have prepared wind roses from the records available at Launceston for a period of about 50 years. Our runway will be parallel to the direction of the prevailing wind, which is purely in a north-west and south-east direction. Runways may cross and will cross and there is ample room on the site to provide runways in every direction.

33. To Mr. M. Cameron.—It has been the Government's policy in the past to establish a main aerodrome at every capital city. There are aerodromes at all the capital cities on the mainland, but there is none in Tasmania at present. Launceston provides a much better site than does Hobart, bearing in mind that any service between the mainland and Launceston must go to Launceston whether or not it goes to Hobart. The people of Hobart may object to the establishment of an aero-

drome at Launceston, but up to the present they have expressed no opinion. I am satisfied that it is better for the Government to establish an aerodrome at Launceston rather than at Hobart. The distance from Melbourne to Launceston, following the islands in the Flinders Group, is about 300 miles. I once reported on that route, and I could easily obtain the off distance for the committee. The place of taking off on the Victorian side would depend on the type of aircraft used. Of course if a special machine were engaged in the service it could take a direct route with-out following the islands at all, and that would considerably shorten the time of the journey. I would prefer a three-engined land machine so long as it were capable of flying for a considerable time with one engine stopped. Flying machines will need to be considerably developed and improved before we could think of encouraging private persons to fly. I suggest that suitable multiple-engined land machines should be engaged in this service. They need not have floats, which is somewhat long. That would mean the preparation of landing areas on the islands. It is better for a machine that has to make a forced landing to land on uneven ground rather than in a rough sea. The machine that I suggest should be used in the service is a good multiple-engined machine capable of flying with one engine out. Matthews Aviation Company have announced its intention of starting an experimental service from the mainland to Tasmania, and it is to be inaugurated, I think, in February or early this year. The company proposes to use a twin-engined amphibian. If the experiment proves successful, it is intended to float a larger company and to operate a regular service. If an amphibian is used, after having disembarked the passengers, it may be housed at the aerodrome at night. In that event it would need to be fitted with wheels and under-carriage. It may, possibly, never go into the river at all.

34. To Mr. Holloway.—If the service between the mainland and Tasmania is confined solely to flying boats, the aerodrome would be valueless from that aspect, but there must be a number of other machines, which are lighter and more economical to handle, and also operating between Tasmania and the mainland, and in Tasmania itself. The aerodrome would still be required for these machines. It would always be used for internal flying and by the Aero Club, which is doing useful work. Some two years ago, Cabinet approval of certain services being established as money became available, and a service between Tasmania and the mainland was one of those approved. Possibly Cabinet would not have approved of the establishment of an aerodrome at Launceston had it known that it would be used for civil aviation entirely within Tasmania, but the chances are that the service between Victoria and Tasmania will be operated by machines capable of landing on the ground as well as on water. The aerodrome is only 9 miles from Launceston, and a really good site for the landing of flying boats could be found within 15 or 18 miles of Launceston. Inevitably there will be a connecting link between Tasmania and the mainland, per medium of aviation, and the construction of this aerodrome will hasten that development. For that reason alone the construction of an aerodrome is justified.

35. To Senator Sampson.—The proximity of the site to the Western Junction Railway Station was certainly a material consideration in purchasing Hogarth's property. Aerodromes are more or less public places nowadays, and when this aerodrome is established large numbers of people will take the train to Western



Junction and walk a ½ mile in order to watch the flying. It will also be of advantage in obtaining equipment, stores and other requirements of the aerodrome. Generally speaking, flying boats are slower than land machines, although the world's speed record is held by a seacraft, which is more like a projectile than a commercial machine. In establishing an air service a good margin of speed is necessary, and that, of course, is an argument in favour of using land machines. I personally made a reconnaissance of two routes between Tasmania and the mainland, following the islands in each case. We did not go so far as to select actual sites for landing, but it would be possible, if thought desirable, to put in some landing grounds on the islands. Of course the ground in some cases consists of nothing but rocks, but it is better to land on rocks than in a rough sea. We gave consideration to the western route, via King Island. That island provides a pretty good landing place. The service should be undertaken by a multiple-engine machine, capable of operating with one engine out. A multiple-engine machine that cannot do that is worse than a single-engine machine. The Aero Club at Launceston was formed about two or three years ago. I think it was at the end of 1927. The lack of an aerodrome has prevented the members of the club from using their equipment.

36. *To the Chairman.*—The aerodrome will be used by the Matthews Aviation Company in its experimental service between Tasmania and the mainland, and later probably in its regular service. It will, undoubtedly, be used by aviators such as Captain Stephens who is, I believe, operating in Tasmania at present. The lack of an aerodrome is a great handicap to him. My investigations were made before there was any Aero Club in Tasmania at all, and I think before any Aero Club in Australia undertook training. The Aero Club collects into its ranks all the enthusiasts on flying. One of its biggest functions is to undertake the training of young persons as pilots. The Government's policy is to issue to certain approved clubs certain equipment on loan to enable them to carry out training. The clubs have to employ flying instructors and engineers, and the Government pays a small bonus to the club for each pupil trained in flying and granted a pilot's certificate by the department. I would not say that that offer is open to any Aero Club, but there are quite a number operating on that principle. There is one in every capital city. The Perth Club has not actually commenced training, but training is taking place in every other capital city, with the exception of Hobart. There should be no need for the Government to erect further hangars on the site at Launceston for the next ten years unless, of course, it inaugurates a service of its own to Tasmania, or varies its existing policy of requiring contractors to build their own hangars. The club-house should meet the requirements of the club for at least five or six years; in any case it is a revenue-producing expenditure. The area that we are clearing for use should be sufficient until large machines are operating across Bass Strait. Any flying machine, before it gets a certificate of airworthiness, must be capable of getting out of a smaller area than we are providing for on the site. I do not think that the landing area would need to be increased for at least three or four years, and in any case it could be enlarged at comparatively small expense. Except for the drainage, that work should cost not more than £4 an acre. The site is at present mostly under intense culture, and there is not much opportunity of seeing how it will firm if left undisturbed for a while. I think that it will bear a good deal of traffic once it is allowed to mat. We shall certainly need to gravel certain areas near the hangars, and probably put in a runway for medium-sized aircraft. Those works are

not included in the present proposals, but they are likely to be needed within three or four years. The Works Department has drawn up a scheme for draining the land, and, no doubt, it will be fully explained to the committee by Mr. Hill.

(Taken at Melbourne.)

FRIDAY, 17<sup>TH</sup> JANUARY, 1930.

Present:

Mr. LACKY, Chairman;

Senator Sampson

Mr. M. Cameron

Mr. Curtin

Mr. Gregory

Mr. Holloway

Mr. Long

Morgan Bruce Harry, Chief Inspector of Postal Services, Melbourne, sworn and examined.

37. *To the Chairman.*—I am aware of the proposal to establish a civil aerodrome at Western Junction, near Launceston. My department has not been consulted in any way with respect to the scheme, but I have a statement giving the views of the department in regard to the utility of an aerial mail service between the mainland and Tasmania. It reads—

The Government is giving special consideration to the improvement of the steamship services between Tasmania and the mainland, bearing in mind particularly the influence that any revised arrangements would have on the efficiency of the mail services.

Additional expenditure is likely to be entailed in the improvement of these services, and from the departmental standpoint it had been thought that such funds as could be made available could be more profitably applied in this particular direction rather than by applying any large sum of money to aid in the establishment of an aerial service.

As the committee is doubtless aware, the steamers ply between Tasmania and the mainland, principally during the night hours, and the times of arrival and departure are arranged to ensure connexion being effected as far as possible with the train services at each end so that the minimum time may elapse between the despatch and delivery of correspondence. Railway services in Tasmania, which are used for incoming correspondence leave the terminal points in the early morning, and although in the case of Hobart a complete delivery throughout the area cannot be made on the day of arrival of the steamer at Launceston or Burnie, it is hoped to effect an improvement under the new conditions which may ensue this being done.

Until it was known to what time-table an aerial service could conform and the frequency at which the service would be maintained, it would be impracticable to indicate what benefits would accrue from such a service. As the service would be run during the daylight hours it does not appear that it would improve the position, more particularly if it is not a daily service.

No arrangement has been made for the carriage of mails by air to Tasmania. We have a contract with the Tasmanian Steamers Limited for the carriage of mails, and that contract is subject to termination at twelve months' notice on either side.

38. *To Mr. Curtin.*—I do not know whether it would be necessary to give notice of every variation of the contract. That, of course, would depend upon the nature of the variation.

39. *To the Chairman.*—An air service to Tasmania would not be of any great advantage. The boats travel at night, and the mails leave Melbourne in the afternoon and arrive at Launceston early the following morning. A seaplane carrying mails would have to leave Melbourne the morning after the boat had left, and would not arrive in Tasmania until after the boat had arrived there. As a matter of fact, the boat mail would arrive at Hobart very little later than an air mail. The air mail would provide a later closing time, but that would be of little advantage, because the business day ends at 5 p.m. At present aerial services are carrying mails in Australia. There is the Perth-Derby service in Western Australia, the Adelaide-Perth service, and the Adelaide-Cootamundra service, with links

from Hay to Melbourne and from Mildura to Brokon Hill. The Sydney-Brisbane service was recently established. There is also the Queensland service which runs from Brisbane to Charleville and from Charleville to Camoowal. The service originally ran from Charleville to Camoowal, but about twelve months ago it was extended from Charleville to Brisbane. A service is to be shortly established between Camoowal and Daly Waters. All these services carry mails. Except in the case of the service from Sydney to Brisbane, I think that the delivery of mails is made at the aerodrome. It may be, in some case, that the aerial company, when transporting passengers from the aerodromes by motor car would also take the mails to the post office. As a rule we have to deliver and get delivery of mails at the aerodrome. It would be an advantage to have the aerodrome as near to the city as possible, but due regard must be paid to the cost of the land. I would not regard an additional travelling distance of from 3 to 4 miles to an aerodrome as a vital matter. Undoubtedly, it would increase the cost of conveying mails and passengers between the aerodrome and the city, but so far as mails are concerned, the additional distance would not involve a large expense. I suppose that we might reckon on the cost being somewhere in the neighbourhood of 1s. a mile. We cannot see at present that an aerial mail service between the mainland and Tasmania would provide an advantage that would be commensurate with the cost. It would be more advisable to expend the money in improving the mail boat service between Tasmania and the mainland.

40. *To Mr. Long.*—Generally speaking, an air service between Tasmania and the mainland, if properly regulated, would be an advantage, but I doubt whether that advantage would be commensurate with the cost.

41. *To Mr. Holloway.*—During the summer time, from the middle of September to the end of March, the present contract provides for a service of three trips weekly each way between Launceston and Melbourne. For the rest of the year there is a twice-weekly service each way. In addition, there is a service between Melbourne and Burnie which runs twice a week each way throughout the year. A service is also given by non-contract boats which leave Melbourne on Saturdays. They provide an auxiliary service. Those services taken altogether would average four mails a week. If necessary, we could provide a daily service. An additional vessel could be put on the Burnie route. The *Onah*, which is at present on that service, can only provide a twice-a-week service. The *Loongana* is used on the Burnie service for a period of eight weeks during the summer; for the rest of the year it acts as a standby vessel, and takes the place of the *Nairana* when in dock for repairs or overhaul. The *Nairana* is the only vessel on the Launceston service. Of course, in the summer time the *Loongana* caters for the tourist traffic, but that is apart altogether from the mail contract. The frequency of the service would be increased by all the vessels carrying mails. I do not know exactly what additional facilities are to be given Tasmania in the way of telephone and telegraph communication, but I shall be pleased to obtain that information for the committee. I believe that there is a proposal to establish telephone communication with Tasmania, but even if that were inaugurated it would scarcely influence the mail traffic. Our experience is that the postal traffic still maintains its normal increase notwithstanding the extension of telegraph, telephone, and wireless facilities.

42. *To Mr. Cameron.*—No aeroplane would be able to carry all the mails for transport between the mainland and Tasmania. There would probably be

from 200 to 300 bags of mail matter, including first and second class mails. The ordinary plane used in Melbourne could not carry anything like the whole of the first class mail. Even the large planes operating on the east-west service would not be capable of carrying that quantity of mail. It is not so much the weight as the bulk, particularly of second class mail, which would prevent the carriage of mails by aeroplane. I shall obtain for the committee figures showing the volume of first and second class mail between Tasmania and the mainland.

43. *To Senator Sampson.*—The present subsidy paid to the steamer service is £30,000 a year. That provides for three trips each way in the summer and two trips each way in the winter between Launceston and the mainland, and two trips each way all the year round between Burnie and the mainland. There have been complaints to the department in regard to the winter time-table and the delivery of mails. Mails posted in Melbourne on Friday forwarded via Burnie would reach Hobart on Saturday evening and be delivered on Monday morning. There are advantages under the present time table which more than compensate for the disadvantage of late delivery. We think that if the Government is prepared to expend money on improving mail services it would be preferable to improve the steamer service rather than provide an aerial mail. The steamer trip takes about eighteen hours from the time of leaving the river wharf in Melbourne to the time of arriving at the King's Wharf in Launceston. Of those eighteen hours, about eleven hours are travelled in the dark, at a time when planes could not travel. Letters can be posted up to sailing time at the boat's side, which is between 2 p.m. and 3.30 p.m. I should think that the department gets value for the present shipping subsidy. I do not think that the sum of £30,000 is an excessive amount for the service rendered.

44. *To Mr. Curtin.*—The subsidy covers everything. It is really a contract price for the conveyance of mails. The use of the telephone, particularly for business purposes, is ever increasing; but it must not be overlooked that mail communication is also ever increasing. Therefore, it cannot be argued that by giving improved telephone and telegraph communications between Tasmania and the mainland an improved mail communication would be unnecessary. There are certain things which are necessary in business, such as documents and correspondence, which cannot be sent by telegram. Business people may come to some arrangement by telegraph, but it must be confirmed by post, and sometimes the need for the receipt of confirmation is very urgent. I think that the main complaint in Tasmania is that the service is not sufficiently frequent throughout the year. The week-end delivery is one of the grounds for complaint. The people of Tasmania generally claim that they are entitled to more frequent mail communication. They also are not satisfied with the passenger accommodation on the boats, and they consider that the tourist traffic is hampered by lack of suitable berth accommodation. The people of Tasmania want better mail communication and better shipping facilities for tourists. Before the shipping company can increase fares and freights it has to obtain the approval of the Postmaster-General.

45. *To Mr. Cameron.*—A separate payment is made to Holman's for the conveyance of mails, so that the actual amount paid for carrying mails to Tasmania is not about £30,000. I shall let the committee know the exact amount. I do not think that the payment for the conveyance of mails by non-contract vessels would amount to much more than £1,000 a year.

46. *To Mr. Holloway.*—If an improved mail service were given between Melbourne and Launceston, and better class vessels were used, Burnie and other ports

would receive a great advantage. If the service with Launceston were improved it would naturally improve the mail facilities to the people in the north-west, particularly if the boat from Melbourne arrived at Launceston in time to connect with the Launceston-Burnie morning train. That would be a matter for arrangement.

(Taken at Launceston.)

MONDAY, 20th JANUARY, 1930.

Present:

Mr. LACEY, Chairman;	Mr. Gregory
Senator Sampson	Mr. Holloway
Mr. M. Cameron	Mr. Long
Mr. Curtin	

Thomas Hill, Director-General of Commonwealth Works, sworn and examined.

47. To the Chairman.—I am aware of the proposal to establish an aerodrome near Launceston. I was responsible for the preparation of the plans in respect of drainage, building and other auxiliary works, and the execution thereof. The plans were prepared after consultation with the Department of Defence and also with its concurrence. I submit for the consideration of the committee drawings Nos. C.531, C.532 and 531A. They have been prepared on the basis of a survey made by Mr. J. Wilks in respect of the levels. Mr. Wilks is the Tasmanian surveyor employed by the department. I should like to say at this stage that the plans have not yet been submitted to the Department of Defence, the reason being that Mr. Wilks' survey lacked certain levels. It is, therefore, possible that the system of drainage and levelling shown on the plans may be slightly amended. In view of the inquiry, I thought it wise to prepare these plans and submit them to the committee as being a good indication of what will be necessary, with possibly some modification. Any modification of the drainage of Hogarth's property will not affect the ultimate cost. On the 22nd December, 1928, a rough estimate in respect of Hogarth's and Von Steiglitz's properties was submitted to the Department of Defence. The report reads—

**HOGARTH'S PROPERTY.**—This property is about 9 miles from Launceston, on a good road within ½ mile of Western Junction railway station. It is farm land of good quality, heavy soil, and is at present drained by open drains. Several large Hawthorn hedges cross the property and will have to be removed. The soil being of a heavy, clay nature the surface will have to be prepared in order to establish service all the year round. This can be done by the construction of gravelled runways. The drainage from the road is carried through the property by means of an open drain fed by a pipe culvert—this water would have to be carried out by a pipe drain. The other surface drains through the property would require to be placed, filled in and levelled. The ground generally would require ploughing and harrowing and cross harrowing and rolling. There are good sites for the buildings required and for the general public. Electric power is available. Water would have to be provided by means of tanks collecting roof water—at a later date, if fire service is considered necessary, water could be pumped from the South Esk River about 2 miles away. This site, suitable by its position, can be made into a first-class aerodrome. It is an expensive site to prepare, but there are no serious engineering difficulties.

**VON STEIGLITZ'S ESTATE.**—Anderson's is about 1 mile from Esplanade and about 1½ miles from Launceston on a good road. The land is of poorer quality than Hogarth's property, and is more suitable for landing ground purposes, being of a gravelly nature. It contains about 1,000 yards along the road by 1,000 yards in depth, say 250 acres—open all round, not shut in by hills, gentle slope, and would not require draining—open country, no hedges, about 20 large trees to grub and a clump of lever trees (vetivels). The preparation required to make the property a good landing ground (after

grubbing the trees) is ploughing, harrowing, cross harrowing and rolling. The surface would stand all the year round. Electric power mains are about 1 mile distant. The South Esk River is about 1 mile away. These sites appear to be the only ones suitable for aerodrome purposes within a reasonable distance of Launceston. Either of these properties can be made into a first-class aerodrome. The Western Junction site is more expensive but closer to Launceston.

The approximate cost of each property is as follows:—

WESTERN JUNCTION (HOGARTH'S).		£
200 acres at £40	8,000	
200 acres, ploughed, harrowed and rolled, at £3 per acre	600	
210 chains hedges to grub, at £3 per chain	630	
Drains—130 chains of 8-inch, at £4 per chain	520	
50 chains of 6-inch, at £1 per chain	50	
Gravelling and rolling runways 6 inches deep—500 yards by 200 yards, at 12s. 6d. per cubic	10,000	
yard	100	
Fencing	20,400	
Total	20,400	

At the inception of the aerodrome, where only light machines will be used, the gravelling might be cut down, and it is possible that one runway 440 yards by 50 yards would be sufficient with only a light coat of 3 inches of gravel, say 2,000 cubic yards at 12s. 6d. would be £1,250, making total required at inception £11,650.

**EVANDALE PROPERTY (VON STEIGLITZ'S).**

250 acres, at £20 per acre	5,000
250 acres ploughed, &c., at £3 per acre	750
Grubbing	250
Fencing, &c.	250
Total	6,250

The estimate for the Evandale property does not include the cost of gravelling and rolling runways. Runways would not be necessary in the early stages because the surface of the soil is good. On the 22nd November, 1929, we furnished the Defence Department with the following estimate for work on Hogarth's property:—Drainage, £1,115; subsoil drainage, £768; surface drainage, £332; fencing, £232; ground marks, £33; and clearing and removing hedges, £321. That estimate of approximately £2,000 compares closely with the estimate of £2,400 made in 1928. The cost has been slightly increased, but that is due mostly to more expensive fencing. We have now made a close study of the project. Previously a reconnaissance was made. We were asked by the Defence Department to advise on the engineering aspect of Hogarth's property, and other than perhaps submitting a personal opinion of one of our officers, we have not dealt with the subject. On the 1st December, 1929, the following letter was sent by the Department of Defence to the Secretary of the Works and Railways Department:—

"Will you please advise the earliest possible date you can arrange for an officer to accompany Captain Johnston to Launceston to advise as to engineering difficulties associated with the preparation of the proposed aerodrome site at Launceston."

It will be noticed that engineering is what we are asked to advise upon. The carrying out of the immediate requirements at the aerodromes as set out in the estimate of £2,000 would depend on the weather. If the weather were suitable they might be carried out within a couple of months. In wet weather draining is extremely difficult. The grading of land such as Hogarth's is not a job I should like to tackle in the winter time. The gravelling or runways would be essential for a service all the year round. The gravel would have to be obtained from Von Steiglitz's property. There is another quarry, but it is 1 mile farther out. Hogarth's property can be drained. It will require underground agricultural rains and some artificial draining of the surface. It is now practically

flat, and without putting in artificial ridges and slopes, giving a grade of 1 in 120, I do not think that the drainage system would be satisfactory. Plans C.531 and 531A show the drains that would be necessary. With that exception, for a distance of 1,000 feet either way there is practically no variation in the levels. On Von Steiglitz's property, due to the slope and nature of the ground, little drainage would be necessary. The slight undulation of Von Steiglitz's property would not effect its utility as a landing ground. Hogarth's property would need some surface levelling and grading, and it would be essential to have gravel runways. Von Steiglitz's property would require the ordinary levelling and grading, but no gravelling of runways. The depth of gravel and the natural surface would be quite sufficient for the purposes of an aerodrome. For the information of the committee I have brought with me a layout of the Mascot aerodrome at Sydney. It is a tentative layout giving some idea of the relative size. Mascot of course is a much bigger proposition, because it is based upon the maximum area, including land now used by the New South Wales Gun Club. The plan shows the proposed system of runways, each being 500 yards long, which is the length of the suggested runways at Hogarth's property. I cannot contemplate the proposed aerodrome as being solely for Launceston. We must regard it as a Tasmanian aerodrome, and while in the early stages it is possible that a runway of 440 or 500 yards might be sufficient, I think that ultimately the Tasmanian aerodromes must come within the category of Mascot, New South Wales. The country towards Hobart is very hilly, and I think it would be difficult to obtain an aerodrome site near the capital city. A site near Launceston would be favorable, not only for Launceston, but also for the whole of the State. That fact has considerably influenced me in coming to a decision with respect to the suitability of both Hogarth's and Von Steiglitz's properties as an aerodrome site. Von Steiglitz's property would not need runways, because of the nature of the soil.

48. To Senator Sampson.—The surface is of natural gravel, and, therefore, would be suitable for the landing and taking off of heavy machines.

49. To the Chairman.—The soil at Hogarth's property is of a clay nature. The clay is close to the surface and there is a clay loam on top. Even if the surface were well grassed, to meet the requirements of a Tasmanian aerodrome, it would need heavy expense in gravelling. The estimate for gravelling is rather on the high side. It is 12s. 6d. a cubic yard, but I think that that could probably be cut down to 9s. 6d. or 10s. a cubic yard. Even with that reduction the cost would be fairly heavy. I think that the runway would need to be longer than 500 yards and other runways would be necessary. That would make the preparation of this site an expensive item. The property can be drained, but it would have to be surfaced if the aerodrome is to be used all the year round, in all weathers, by all classes of machines.

50. To Mr. Curtin.—We have taken into account the easements necessary in connection with the drainage at Hogarth's. That is a small item. Two easements have been acquired from adjoining properties to allow the water to drain off the site into an adjacent gully where we think it can be disposed of.

51. To the Chairman.—The estimated cost of grubbing the large trees on Von Steiglitz's property is £250. That is included in the estimate of £6,250 which I have already submitted to the committee. The property is on the main western road, which has a bitumen surface of about 3 miles of the 13 miles of roadway from Launceston. The remainder of the road has a gravel surface, but I think that it will ultimately have a bitumen surface. Hogarth's property is 9 miles from

Launceston and Von Steiglitz's property 13 miles. Even if the extra 4 miles were not bitumen surfaced it will still be an excellent road. It is a main road, and will always be kept in good order and condition. I do not think that a water supply is necessary on the site; at any rate, not at this stage. The rainfall is good and sufficient for the purpose of the aerodrome, and water could be collected from the roofs of the buildings. There would be no difficulty in the future in providing a water supply at small expense. In regard to the sewerage, Hogarth's property would require a pan system, but on Von Steiglitz's property a small septic tank could be erected and the effluent discharged into a drain. The aerodromes in South Australia and Western Australia have the pan system. No steps are being taken to cope with any possible outbreak of fire. That has not been considered, nor do I think it necessary in respect of the ordinary equipment. The buildings will be mostly of iron and wood framing with corrugated iron roofs, and I think that a good supply of fire extinguishers would be all that is necessary. The Department of Defence has been furnished with the estimated cost of a hangar with consolidated earth floor and a concrete floor in the office. The estimate for that is £750. The estimate for a hangar with a concrete floor throughout is £830, and for brick paving, £846. It is a small hangar, and I think that all that will be necessary for some time in the way of fire precautions is a good supply of extinguishers. No meteorological data in respect of the rainfall, the prevailing winds or the frequency of fogs, has been collected. I thought that Captain Johnston would give that information to the committee, or that it would be collected locally. I have made inquiries and I find that the average rain fall at Launceston is about 56 inches, and that fogs occur with the same frequency in regard to both Hogarth's and Von Steiglitz's properties.

52. To Senator Sampson.—The city surveyor of Launceston gave me that information at lunch-time to-day.

53. To Mr. Gregory.—The cracks in the clay soil on Hogarth's property caused through the dry weather will effect the gravel runway to some extent, but the runway could be easily raked over and the cracks filled in. Naturally, if the runway were used to any extent the traffic would fill in the cracks. We contemplate that the runways will ultimately need to be bitumen surfaced. There seems to be a tendency, when an aeroplane is starting off, to blow the sand and fine stones away, and ultimately some sort of binder, such as bitumen, will be necessary to prevent the gravel runway from disappearing altogether. Von Steiglitz's property would not need any special gravelling. A great number of rocks have been removed from the soil by the present owner, and I do not think that there would be any exceptional expense or difficulty in making suitable runways. I think that quite sufficient water could be obtained from the roofs of the buildings even without providing an underground supply. The quantity of water needed for fire purposes is not very large. The main thing is to get the water quickly and to have sufficient for fifteen minutes. If the fire is not out by that time water will have little effect. At Point Cook we have a storage of 50,000 gallons purely for fire purposes, and that is considered ample; so that the water supply does not offer any difficulty at all either for fire or for domestic purposes. With large iron roofs there should be no difficulty in collecting 50,000 gallons. It would not be possible to have a septic tank at Hogarth's property and to run the effluent into the drain pipes. Such a system would be open to danger. We have many systems working throughout the Commonwealth, and some time or other they give trouble. I know of no system that is perfect. The Defence Department has submitted no estimate in respect of Von Steiglitz's property since December, 1928. Hogarth's

property has already been purchased by the Commonwealth. If this committee decides that Von Steiglitz's site is preferable, it is not too late to alter the decision of the Defence Department. Large economies can be effected by the acquisition of Von Steiglitz's property. Hogarth's property cost about £38 17s. an acre. I understand that it would realize about £23 an acre today. The loss would be under £3,000. Most of that could be saved in the drainage and preparation of runways. The question of whether the site should not be altered warrants serious consideration. I do not think that the proximity of Evandale village to Von Steiglitz's property would be a source of danger to pilots and the general community. A similar position exists at other aerodromes.

54. *To Mr. Long.*—On the 11th April, 1929, the Department of Defence despatched to the Department of Works a letter conveying its decision to acquire Hogarth's property. Both Hogarth's and Von Steiglitz's properties were examined in 1928. A further inspection was made as to the condition of the surface following on the heavy floods. The drainage and grading of the central part of Hogarth's property would cost about £3,500. The cost of gravelling runways would be about 20s. a cubic yard. By the time that the gravel is carted to the site and rolled it would certainly be an expensive item. A runway 449 yards long and 50 yards wide with gravel 3 inches deep would represent about 2,000 cubic yards of gravel at a cost of about £1,250. There is the possibility that the runway would ultimately need to be bitumen surfaced. Even certain parts of Von Steiglitz's property would ultimately need to be bitumen surfaced. The cost of preparing Von Steiglitz's property would not be nearly so great as that of preparing Hogarth's property. Von Steiglitz's property has the additional advantage of the gravel being on the site and rolled it would certainly be an expensive item. The cost of pumping water for fire purposes would be about the same in each case.

55. *To Mr. Holloway.*—For the purposes of a Tasmanian aerodrome a runway of 900 yards would be insufficient for all purposes. It is possible to prepare on Hogarth's property, to meet the north-west wind, a runway up to 1,000 yards. To meet the wind from other directions a runway of 900 yards would be possible, but only at considerable expense due to the configuration of the land. The prevailing wind is from the north-west, but there are other winds. South-easterly winds often blow continuously for three days. Other winds come from the south-west. For the purposes of a Tasmanian aerodrome Hogarth's property is rather circumscribed. Von Steiglitz's property has not that disadvantage, because a larger area can be acquired at any time; in fact, provision was made in the estimate for 250 acres as against 192 acres in the case of Hogarth's property. On the 192 acres the contours are kindly and the grades are sympathetic; but beyond that there are hills and obstacles such as roads. There is a main road on one side, a railway to the south, undulating country to the east, a house and property to the north-west, and a stables to the south-west. It gives one the impression that there will sooner or later be a restriction of area. We want plenty of room for development. The aerodrome at Essendon consists of 80 acres; but that was acquired some years ago before aviation developed to any extent.

56. *To Mr. Gregory.*—Hogarth's property is not too small, but I should like to have the capacity to enlarge it.

57. *To Mr. Cameron.*—Even if the runways were ploughed, harrowed and sown down with grass so as to form a mat, I do not think that it would be capable of carrying heavy planes. The tail skids of the planes would certainly break up the grass. The effect of this can be seen at Mascot. The grass will not hold. One of the difficulties at Point Cook is that grass along

side the hangars will not hold. The tail skid combined with the draught of starting up the engine blows the ground into hollows. I do not think that in the winter time, even if the soil were well grassed, it would carry the heavy machines that are used at some aerodromes. They would sink through the top layer even if the surface were in good order and condition. I am referring to the heavier type of machines such as those used on the east-west route. Under some conditions Hogarth's property would be a worse carrying ground for an aeroplane than the Perth aerodrome. Hogarth's property is somewhat similar to the surface of the Point Cook aerodrome, with the exception that the soil at Point Cook has in it a little more clay and is of a more volcanic nature. The pilots at Point Cook are not tied to a definite time-table. In bad weather they need not fly. On some days the pilots do not attempt to fly knowing that the surface would not carry the machines. Any part of Von Steiglitz's property, if graded and shaped up, would lend itself to be used as a runway. About 95 per cent. of the area is of splendid gravel material, and any part of that would lend itself for immediate use as an aerodrome. It would be a long time before it would need any special treatment. The original estimate for clearing hedges on Hogarth's property was £630, but we reduced the estimate to £521, because at the present stage some of the hedges need not be removed. It will take all of £3 a chain to remove the hedges. That estimate is fairly cut. The hedges would have to be torn out preferably in winter time and the ground made good. Every precaution would have to be taken to prevent the possibility of any shoots appearing afterwards.

58. *To Senator Sampson.*—Reports on both properties were furnished in December, 1928, and a reconnaissance was made within a day or two of that time. The property was also inspected in the winter time. The following is the report of the engineer, furnished on the 25th May, 1929:—

*I made an inspection on the proposed site of the aerodrome at Launceston on the 23rd May, 1929. The proposed sites are Western Junction and Evandale. They are both well above flood level, and neither of the sites were affected by the recent floods. The soil at Western Junction was tacky, and stuck to the boots. The soil at Evandale was firm and clean underneath.*

The question was whether the floods had reached the sites, and whether there had been any scouring. The engineer reported when he returned that the flag in Hogarth's property would naturally have water in it. *The cracks in the soil in dry weather is evidence that the ground is very wet in winter time. I speak also from a knowledge of similar soil elsewhere. I have not seen Hogarth's property in the winter time, but I have seen plenty of similar places. At certain times of the year it would be necessary for planes to land on the runway, particularly after several inches of rain. There are no unsurmountable difficulties at Hogarth's property. It could be drained and provided with runways, but the gravel would have to be carted from Von Steiglitz's property 3 or 4 miles away. The extra distance of 4 miles, as far as the sites are concerned is a small factor, especially on a good road and in these days of motor cars. Modern practice is to obtain larger sites for aerodromes at not too great a distance from the city, certainly not near the city or within the suburban area. There would be no difficulty in machines operating on Hogarth's property except in respect of very large machines. They need a runway of 1,000 yards in order to pick up when carrying a load of passengers and fuel for long distances. I do not think that the proximity of Evandale village to Von Steiglitz's property would be a factor against its aerodrome, such as Mascot. Of course, I would not like to dispute the opinion of a flying man if he is of the opinion that that would constitute a danger.*

59. *To Mr. Curtin.*—If mails and passengers were carried by air from Tasmania to the mainland the tendency would be to use a heavier type of plane. To enable the planes to land and take-off the runways would need to be of reasonable length and width and covered with gravel to a depth of 6 inches. The estimate for that work is £10,000. The same type of plane could land on Von Steiglitz's property as it is at present with practically little or no preparation. Of course, the surface would have to be graded. I am favorably impressed with Von Steiglitz's property. The depth of gravel is considerable, and there is good stone in it. It has a good bearing surface and good drainage. If only light planes were used it would still be necessary to have a gravel runway on Hogarth's property. In wet weather, the work of taking the machines from the hangars to the runways would be very disagreeable, because it would practically be mud underneath. It would need more than light runways to make that ground usable throughout the year. The surface of the ground between the hangars and runways would also need special treatment. This aerodrome should be for Tasmania as a whole, and suitable for light, medium, or heavy work.

60. *To the Chairman.*—The Defence Department was responsible for choosing Hogarth's site. The Works Department purchased the property at the request of the Defence Department. We were not consulted, except in respect of the engineering possibilities of the site.

61. *To Mr. Gregory.*—A runway of 900 yards would be necessary for big machines. If on Hogarth's property four runways were provided in various directions each 900 yards by 50 yards the additional cost including grading, clearing and gravelling would be about £10,000. The runways would require at least 6 inches or more of gravel to carry the weight of the heavy aeroplanes. That is our experience. It might happen that heavy machines would sink through 6 inches of gravel. In the early stages 8 inches of gravel would be necessary for light machines.

*The witness withdrew.*

George Davy Balsille, Director of Public Works for the State of Tasmania, sworn and examined.

62. *To the Chairman.*—I am not familiar with all the records of the rainfall in Launceston, but the average rainfall for the last 50 or 60 years has been in the vicinity of 28 inches. The maximum is 32 inches, and the minimum 21 inches. I have lived in Launceston for 5½ years. In the winter time, in the months of May and June, fogs are very prevalent. I am aware that the committee is inquiring into the proposal to establish an aerodrome near Launceston. I am not familiar with either Hogarth's or Von Steiglitz's properties, although I know the locality. If one property is higher than the other it would be less subject to fog. The level of Von Steiglitz's property is 544 and of Hogarth's 528 feet above mean sea level Hobart. I am conversant with the road leading to both properties. From Launceston to the Evandale town-off it is bitumen surfaced and then a gravel surface. The gravelled portion is not a proclaimed main road and it will be maintained for many years as a gravel road. All the gravels in that locality provide a good road.

63. *To Mr. Holloway.*—There would be no difference in the frequency of fogs on both properties unless there is a considerable difference in altitude. I should say that the site near the estuary would be more liable to fogs. In the winter time quite a number of fogs are purely local.

64. *To Mr. Cameron.*—I have no personal knowledge of the nature of the soil on either of the properties.

65. *To Mr. Gregory.*—It frequently happens that the low-lying portion of Launceston is covered with fog while the higher altitudes are quite clear. Sometimes the fog extends to Avon, a distance of 30 miles, but that is quite exceptional.

66. *To Mr. Curtin.*—The prevailing wind is from the north-west, although two or three times a year we have strong south-easterlies lasting three or four days. In the winter time we would probably get a south-westerly once a week. We would not get more than two north-east winds in the course of twelve months. The main winds would be from the north-west and the south-west.

*The witness withdrew.*

Hugh Cathcart Cameron, farmer, Evandale, sworn and examined.

67. *To the Chairman.*—I have been acquainted with the locality of the proposed aerodrome site for 25 years. I lived at Andora for some years, and have farmed my own place for about twenty years. My place joins Hogarth's on the north side. The road leading to the proposed sites are of bitumen and gravel. I know both the properties. Hogarth's place is extraordinarily free of fogs. The land is at a high altitude and is free of fogs when they are prevalent in every other direction. There are three fogs at Andora to one at Western Junction. The height of Hogarth's property is about 530 feet above sea level. A bad fog is very rare there. I do not know the height of Von Steiglitz's property but it is close to the river and the fog rolls over the river. The fog follows the valley of the river and in winter time is prevalent at Andora. I know the nature of the soil at both places. It is much wetter at Hogarth's place than at Von Steiglitz's, but a lot of water lies on Von Steiglitz's property in the winter time. The soil at Hogarth's when compressed is like macadam. In the winter time loads up to 3 tons can be taken over the surface without any preparation. It is like solid rock. I have on my place a roadway upon which I cart in the winter time. It is soil covered with English grass and after being continually pressed down for a few years it has become capable of carrying a traction engine even in the winter time. The soil at my place and Hogarth's is practically the same. When it is pressed and rolled one can hardly drive a pick into it. That part of my property over which I cart is headland which was left out of the paddock five or six years ago. It was planted with English grass and now that it is pressed down a traction engine can be driven over it on any day in the winter time. I cart up to 3 tons of chaff in the winter time without any trouble. There are large cracks in the ground in the summer time, but that applies everywhere.

68. *To Mr. Holloway.*—If the ground it not graded it will pick up on the boots in the winter time; but it is remarkable ground for carrying grass. It is better than any I have seen, and bound down with grass it will carry anything. I use the same track for carting year after year. I have not put any gravel on the headland because it is not necessary.

69. *To Mr. Cameron.*—The centre of Hogarth's property, with its present coat of grass, would carry an ordinary wagon with 4-in steel tyres. I am not familiar with aeroplanes, but I guarantee that Hogarth's property if well grassed and compressed would carry a traction engine. A traction engine which was driven over my property in the winter time barely marked the

ground. I have not noticed whether any water lies in the centre of Hogarth's property. No one in the locality keeps a rain gauge. I should say that Launceston would have a heavier rainfall than Evandale, because a great number of showers at Launceston come towards Evandale for two or three miles and then break away over the hills. There was very little rain during the floods, so there was no water to speak of lying about at Western Junction. We had possibly 1 1/2 inches of rain at the outside. The rain fell on the watershed.

70. *To Senator Sampson*.—A comparatively small area of Andora was flooded.

71. *To Mr. Gregory*.—We use English grass mainly for hay and it in after a crop, feeding it lightly for a year. In two years there is a solid body of grass on the ground, which if drained and compressed will carry a traction engine. English grasses give solidarity to the ground. I have a motor lorry, and I have no trouble in running it over my property in the winter time. I do not think there would be any necessity to gravel the runways for aeroplanes.

72. *To Mr. Long*.—Wet weather would have no effect upon the carrying capacity of Hogarth's property provided that it were well drained and grassed. I am not familiar with the central part of the property. There would not be nearly so much water lying on Hogarth's property in the winter time as there is at Andora. Many years ago we used to make turf cricket pitches with that black soil, and it became just as solid as cement. My headlands carry a fair amount of traffic and wet weather has no effect whatever upon the surface of the soil.

Thomas Rae Hogarth, farmer, Western Junction, sworn and examined.

73. *To the Chairman*.—I am aware that this committee is inquiring into a proposal to establish an aerodrome near Launceston. I sold to the department portion of the land already acquired for that purpose. I know the nature of the land. In wet weather it is a bit sticky and difficult to plough. After the soil has been grassed for a year or two it becomes more friable and is not nearly so sticky. The soil after being grassed for a few years would carry good weight. In that locality there are really no hanging fogs. The site is particularly free of fogs even when fogs can be seen in other directions, over the north and south-east valley. I have ploughed every paddock on the aeroplane site. Without grass the ground would be sticky in wet weather. About 5 acres of my property have never been ploughed. The centre of the site is low lying, and there is not much drainage. It is five or six years since the paddocks in the centre of the site have been cultivated. It is not a good paddock to cultivate. Very little water lies on it during the winter. There is no surface water. The ground has a heavy clay surface and is difficult to work. In the winter it is practically water logged. The clay is near the surface, and in wet weather the soil becomes tacky and sticks to the implements. The plough has to be cleared every time it reaches the end of the paddock.

74. *To Mr. Long*.—The soil near my house and at the far end of my place is red stoney soil, but at the far end of Stuart Hogarth's place the soil is granitic. The land is not by any means all the same. The water always drains off the property, even off the depression. It could be effectively drained by means of agricultural drains. If the land were ploughed, harrowed, cross harrowed, rolled and grassed, I should think that the surface would be sufficiently good for the purposes of an aerodrome.

75. *To Mr. Holloway*.—The largest portion of the acquired land belonged to my cousin. We entered into negotiations with the department separately.

76. *To Mr. Cameron*.—The central paddock is the wettest portion of the whole area. We call it the gorse paddock. The water does not lie on it at all, but the ground becomes sodden. Of course there may be some water lying in the depressions and furrows. I think that in the winter time I could drive a motor car over that land without any trouble; but I have had no need to do so.

77. *To Mr. Cameron*.—If the soil were ploughed, rolled and grassed there would be no difficulty in carrying fairly heavy loads across it even in the winter time.

78. *To Senator Sampson*.—It would be seldom that a fog would hang and prevent visibility from the air. The only fogs that we get are those that drift across from Launceston.

79. *To Mr. Curtin*.—The fogs would hang on my property in the winter months, but we never have a thick blanket of fog.

80. *To Mr. Gregory*.—My property is 562 feet above sea level. I should think that if the soil were properly grassed and rolled it would not be sticky in the winter time and heavy loads could be carted over it without any gravel being placed on the surface. Water can be easily drained off the land. I have no knowledge of aerodromes.

81. *To Senator Sampson*.—I have no desire to sell my property. I had to admit to Colonel Brismead that it was singularly free of fogs. If the land were ploughed and harrowed in the summer time the soil would not drift. I should not be prepared to re-purchase the property at the price at which I sold it.

82. *To Mr. Holloway*.—The aerodrome could not be extended on my property. It could be extended northerly into Mr. Cameron's property.

The witness withdrew.

(Taken at Launceston.)

TUESDAY, 21st JANUARY, 1930.

Present:

Mr. Lacey, Chairman;

Senator Sampson	Mr. Gregory
Mr. M. Cameron	Mr. Holloway
Mr. Curtin	Mr. Long.

Eric John Tabart, Honorary Secretary of the Australian Aero Club, Tasmanian Section, sworn and examined.

83. *To the Chairman*.—I am aware of the proposal to establish an aerodrome at Western Junction. I was concerned in the negotiations which lead to the purchase of the site. The idea originally arose in 1927, from newspaper reports of the Aero Club's activities on the mainland, and Captain Holyman put the proposition to me that we should form a branch in Tasmania. At that time I was secretary of the Tasmanian Automobile Club. I put the proposition before the members of my committee, but they would not handle it. They informed me I could do what I liked with the automobile members. I convened a meeting at the Town Hall in August, 1927, and, as a result, the Aero Club in Tasmania was formed. The objects of the club are to promote civil aviation, to create an air sense among the people of Tasmania, and to train pupils. We have 145 members. There are several classes of membership. A flying member, one who is eligible to be trained as a pupil, pays an entrance fee of £3 3s. and a subscription of £3 3s. a year. Country members pay an entrance fee of £2 2s. and a subscription of £2 2s. We were recommended by the Civil Aviation

Department to raise £500. We obtained that money within two or three months. We then approached the department, and representatives were sent over to select a site. We picked a few prospective sites and Captain Johnston eventually selected one. We collected £500 to place our club in the position of being able to carry out its work in a satisfactory manner. We inspected another site on the right hand side of the road, just before reaching Hogarth's property. It was too small and the land was very undulating. We did not then know what area would be required. As far as I know we did not visit Von Steiglitz's property. I had little to do with the selection because I am not a practical flying man. That was left to the flying members of the committee. I have had no flying experience whatever. I have been a resident of Launceston for some time and I have been over Hogarth's property. I have not studied the class of soil there. I have been on the property only twice and that was for the purpose of looking at the site for the buildings. The centre of Hogarth's property is about 8 miles from the Launceston General Post Office. I regard that as a convenient distance, but an extra distance of 4 miles would be a disadvantage. It would necessitate hiring a car at 1s. a mile for the additional 3 miles there and back, or running one's own car at say 7d. or 8d. a mile. It would be a considerable expense over twelve months, and I do not think that the members of the club would be inclined to patronize the aerodrome regularly if it were more than 8 miles from the city. I know the situation of Von Steiglitz's property, but I have not been on it. All other things being equal, I should prefer the site that is nearer to Launceston. The club has no machines at present, although according to our agreement the aerodrome will provide us with two de Havilland (60) aeroplanes. There is no aero-club in Tasmania. The Launceston club is the only one in Hobart. I am acquainted with Hobart, and I do not think that a suitable aerodrome site could be found within a radius of 15 or 16 miles of that city. I do not think that Hobart should be a terminal air port. The Government's policy is to encourage aviation, and this club has done everything within its power to encourage aviation in Tasmania. I consider that the Government should assist the club by providing facilities for flying. Our club is the only body in Tasmania that has ever tried to assist civil aviation. I am not aware that in large towns on the mainland the local authorities provide aerodromes. Launceston appears to be the only suitable place in Tasmania for an aerodrome. Launceston should be the terminal port for any air service between Tasmania and the mainland. It is the distributing centre for mail and passenger services.

84. *To Mr. Curtin*.—Launceston is the distributing centre because of its railway connexions and its geographical position.

85. *To Mr. Holloway*.—An aerodrome at Launceston would cater for all the flying needs of Tasmania.

86. *To Mr. Cameron*.—I think that for the present, at any rate, one aerodrome at Launceston would be sufficient for the requirements of Tasmania. It would not be necessary for the time being to develop other aerodromes. The members of the Aero Club would have to confine their activities to the Launceston aerodrome. I think that the expenditure in connexion with the aerodrome would be justified because it would eventually be used for mail and passenger services.

87. *To Senator Sampson*.—The Tasmanian section of the Australian Aero Club was formed in August, 1927. Its membership is well distributed over the island, although naturally most of the members are Launceston residents. A number of the members are Hobart residents. Up to date no actual flying has been done by the club. We have no aerodrome and no

machines. The machines have been ready for some time, but we have not been able to take delivery, because the agreement between the club and the Commonwealth Government was executed only on the 7th October last. That agreement provides for the hire of the aerodrome to the club and the provision of two de Havilland (60) machines, including spare engines. A subsidy is to be paid by the Commonwealth Government to the club. I understand that the machines are available in Melbourne, but they cannot be used because there are no facilities in Tasmania for teaching pupils to fly. The greater percentage of the population of Tasmania is in the north. Launceston is the centre of distribution to the south, north-west and the east coast. For that reason, and because of its railway and road facilities and its geographical position Launceston should be the terminal air port.

88. *To Mr. Curtin*.—I have a copy of the agreement with the Defence Department, and I shall lodge it with the committee for the information of its members. A subsidy of £20 is to be paid to the club for each pupil obtaining an "A" licence, and 10s. per hour for every hour flown by the club's machines up to 1,000 hours per annum. I understand that it is the standard agreement made between the Commonwealth and all the aero clubs. As it is the Government's policy to encourage civil aviation it should assist the Aero Club by giving it flying facilities. Hobart residents who wish to fly will have to come to Launceston. About 10 per cent. of our members would be outside a radius of 25 miles of Launceston. We consider that the membership will grow when flying facilities are available. All country members would be obliged to pay their own expenses to Launceston. If a man is an enthusiast he will be quite willing to pay his own expenses; the same as is done on the mainland. Most of the Launceston flying members would use the aerodrome at the week-ends, and if they had to go an additional 4 miles to reach the aerodrome it would be a serious handicap to them. We are hoping that the club will be residential so that country members may stay there and undertake a continuous course of training. If an aerodrome is established I consider that the membership of the club will be doubled within the first 12 months. We have not taken any new members for the last fifteen months. We have nothing to offer them. We had to pass a special resolution at the annual meeting to the effect that no further subscriptions would be payable by existing flying members until the club was in possession of its equipment and aeroplanes. That naturally has prevented any increase in the membership. The club has made no application to the local municipal authorities to supply suitable landing grounds. I understand that on the mainland there are some private landing grounds; but I know of no municipalities that have established landing grounds.

89. *To Mr. Gregory*.—The club has funds amounting to £1,300. Under the agreement the Federal Government is to supply the club with two Moth planes. They will be hired to us for the purpose of developing civil aviation. Our trainees are encouraged to join up with the Royal Australian Air Force reserves. That training that would be given by our club would certainly be of value in the defence of Australia. It is essential that every encouragement should be given for the establishment of an aerial service between Tasmania and the mainland. There may be places other than Launceston that would have suitable landing grounds; but they would not be distributing centres. Devonport would not be as suitable as is Launceston for the purposes of an aerodrome. It is proposed that the Aero Club shall control the aerodrome, although private companies concerned in commercial aviation would be allowed to use the aerodrome and to erect their own hangars on it. The Aero Club has approved of the

plan of the club-house and will be willing to pay rental for it. It is essential that there should be a club-house at the aerodrome because of the distance from the city. The Aero Club has given consideration to the proposed buildings at the aerodrome. We have accepted the final plan as satisfactory. We have no objections at all to the plan of the buildings.

90. *To Mr. Long.*—My interest in the Aero Club, as a non-flying member, is the advancement of civil aviation. I consider that the establishment of an aerial service between Tasmania and the mainland would be of great assistance to the State. It would supplement the mail and passenger services, but irrespective of that, the aerodrome would be justified. Air lines have been subsidized on the mainland. I think that within two years of the establishment of an aerial mail and passenger service it will be well patronized. Hogarth's property is suitable for aerodrome purposes. Of course I speak, not as a pilot, but as a layman. The club-house will contain two bedrooms and will be able to accommodate six pupils, which is a large number to have in training at one time. I consider that a club-house will be necessary at the aerodrome. The aerodrome must have a certain amount of social activity connected with it to keep it alive, and without a club-house we should have nothing to keep the members about the place. A club-house will always be a source of interest to the members.

91. *To the Chairman.*—The club has not given any consideration to the purchase of aeroplanes out of its own funds. There is nothing to prevent us from purchasing our own machines. If a site more suitable than Hogarth's were available 4 miles distant I should certainly prefer it.

92. *To Mr. Cameron.*—There is little fog on Hogarth's property because it is situated on top of a rise. Rarely in Launceston do fogs hang about all day. They last up to 9.30 or 10 a.m., and sometimes to 11 a.m. or 12 noon. I know Hogarth fairly well, and I do not think that a suitable landing ground could be obtained within a radius of 15 or 18 miles of that city. There may be areas in the midlands, or at other country places, suitable for landing grounds.

93. *To the Chairman.*—Hogarth's site is approximately 4 miles from the Western Junction railway. Von Steiglitz's property is approximately 1½ miles from the railway station at Evandale. At Western Junction station 148 trains pass every week, and at Evandale station 70 trains every week. That includes passenger and goods trains. If the aerodrome were ever established as a defence base, its proximity to the railway would be an important factor. In addition there are always a certain number of people who, because of not owning cars, would have to travel by train to the aerodrome.

94. *To Mr. Curtin.*—Sunday would probably be the most busy day. I do not know how many trains pass Western Junction on Sundays.

95. *To Mr. Holloway.*—Under the agreement the Aero Club will receive a bonus of £20 for all pupils receiving an "A" class certificate. The Commonwealth also will supply to the club during a period of two years two de Havilland aeroplanes and two spare engines.

96. *To Mr. Curtin.*—During the period of hire of the club-house, the Aero Club will have the use, free of charge, of the aerodrome at Launceston and of any hangars or workshop accommodation provided thereon. I do not think that the obligation on the part of the Government to construct a club house is contained in the agreement; but that facility has been given to other clubs on the mainland. I refer to the Australian Aero Club in Victoria, New South Wales and South Australia. We are not concerned with clubs that may be subsidiary to the Australian Aero Club.

97. *To Mr. Holloway.*—The club-house is really part of the equipment of the aerodrome. For the purpose of instruction to pupils, the Commonwealth will pay to the club during the first year of the agreement 10s. per flying hour for the first 1,000 hours; 7s. 6d. per flying hour in excess of 1,000 and up to 2,000 hours; and 5s. per flying hour in excess of 2,000 hours. The total amount payable to the club during either year is not to exceed the sum of £1,200. Flying instruction by members and employees of the club for instruction and practice shall comprise all flights carried out by members and employees of the club on the aeroplanes supplied by the Commonwealth or other aeroplanes owned by the club, with the exception of flights made for revenue purposes.

98. *To Mr. Cameron.*—No person trained by the club shall be presented for examination unless and until he shall have completed a period of at least ten hours flying practice and have been in sole charge of an aeroplane for three hours.

99. *To Mr. Holloway.*—We make no provision in the constitution of the club to encourage students by rewarding them. We find that it really costs the club to train a pupil more than we actually receive, even including the bonus. The deficiency will have to be made up out of members' subscriptions. We have not yet gone into the question of engaging an instructor. It is possible that we will contract with an aviation firm to carry out the instruction.

*The witness withdrew.*

Charles William Beresford Martin, Solicitor, Launceston, sworn and examined.

100. *To the Chairman.*—I am a member of the Aero Club, Launceston. I have had flying experience. The type of machine that will be used by the club is a de Havilland (60), otherwise called the Gipsy Moth. For those machines the aerodrome would need to have an area of about 90 acres. Under the agreement between the club and the Government two machines will be in actual operation and one in reserve. Of course, the club may purchase other machines. I should think that the aerodrome would be used at times other than week-ends, because country members who come to Launceston to use the machines will either live on the site or at Launceston, and use the aerodrome during the week-days. I saw the proposed site during the flood, but I have never inspected it in the middle of winter. The surface of the aerodrome needs light harrowing and then sowing down with grass. It would be detrimental to plough the land deeply, because that would bring the clay substance to the surface. I have made a fairly recent inspection of Von Steiglitz's property. There is no doubt that that property would need less preparation than Hogarth's. I have resided in Launceston for 41 years. It is seldom that Hogarth's property is obscured by fog. When travelling along that road I have frequently run into a fog and emerged from it about half a mile before reaching the aerodrome site. After passing the site, fog is again experienced about 2 miles further on, just before reaching Evandale. The Evandale township will then be seen standing out above the fog. The fog sometimes lies across the railway before entering Evandale, and continues right to the Nile River. The fog sweeps up the Tamar and the White Hills valley, and over the flats at Evandale. It would be impossible to use an aeroplane during the period of fog. It is not a mist, but a thick blanket. I have never seen a fog on the flat where Hogarth's property is situated. A machine might leave the mainland for Tasmania, and if the aerodrome were

under fog there would be nowhere to land. The machine could not go back to Melbourne. Fog is the chief thing that we have to watch here. It holds up the shipping; on the Tamar.

101. *To Mr. Cameron.*—Hogarth's property is as clear of fog as any other part of northern Tasmania. I know of two persons who would purchase aeroplanes if an aerodrome were established at Launceston. One is a business man of Launceston and the other is a pastoralist. There is a fair number of war pilots in Tasmania. It will be essential, in order to foster aviation, to establish other aerodromes in Tasmania, but we must have a starting point. Once we have an aerodrome with machines operating, it is quite possible that the various municipalities may provide temporary landing grounds of sufficient area to be licensed by the Aviation Department; but that will not be done until we have a base. I think that Launceston is the only landing area suitable for either commercial or private flying. Hogarth is surrounded by hilly country, but the country round Launceston is suitable for forced landings. Burnie is situated on a ledge of flat country against the sea, and there are hills and undulating country at the back of it. It is not a centre of population. Launceston is more centrally situated and serves the east coast, the north-west, and the south. When Hinkler was here twelve months ago last May the various municipalities visited by him were keenly interested in the establishment of municipal landing grounds, particularly so at the north-west coast.

102. *To Mr. Curtin.*—Hinkler landed on the Show Ground at Launceston.

103. *To Mr. Cameron.*—There is no reason why a mail and passenger service should not be established between Launceston, Hobart, Burnie, Devonport, Scottsdale, and other towns. It could be run as a branch of a service from the mainland to Tasmania.

104. *To Senator Sampson.*—Until the aerodrome is established there is little possibility of a service between Tasmania and the mainland being started, unless there is a tremendous amount of capital behind the project. The training that would be given at the aerodrome at Launceston would be an advantage from a defence point of view. Once a pilot has had flying training he never forgets it.

105. *To Mr. Curtin.*—It is essential, whatever aerodrome is established, to provide runways on it for heavy traffic of heavy commercial machines. The preparation of the ground would be about the same at both Hogarth's and Von Steiglitz's sites. Runways would have to be constructed, no matter what the nature of the surface is like. Special runways must be provided to enable heavy machines to land and take off. The proximity of Von Steiglitz's property to the Evandale village would be a disadvantage primarily from the point of view of the club. The prevailing wind is north-west, and would come direct to the aerodrome from the Evandale township, which is about half a mile from the boundary of the site. If the engine stalls at all it will most likely take place at a height of 200 feet just over the Evandale township, and in that case there would be a danger not only to the pilot but to the residents of that area. I am familiar with the aerodrome at Essendon. Before long that aerodrome will be surrounded by houses, and will have to be removed to another site. The village of Evandale has remained about the same for about 100 years. The additional distance of 4 miles to Von Steiglitz's property is a bigger factor here than it would be in Melbourne or Sydney. On the mainland people think nothing of living 5 or 6 miles from the actual city, and travelling to and from every day; but any person in Launceston would consider a house even 2 miles from the post office too far away from the city. The extra distance represents a certain expenditure each year. There is a

feeling that 13 miles is too far, and that 8 or 9 miles would be sufficient. Even that would mean a fifteen or 20 minutes' journey.

106. *To the Chairman.*—I have read Mr. Hill's evidence in respect of the cost of preparing both sites. The estimates seem to me to be inaccurate. According to Mr. Hill, the approximate cost of Hogarth's property would be £20,400, and of Von Steiglitz's property £3,450. By altering those figures to include the actual cost of Hogarth's property as purchased the estimate for that property would be £19,120. Added to the estimate of £3,250 for Von Steiglitz's property should be an amount of £5,000 for compensation for severance and over-building. On my figures there would, therefore, be a difference in cost of only £7,870, and not £14,150 as shown in Mr. Hill's estimates. I consider that on Hogarth's property special runways will not be necessary for some considerable time, provided that the surface is properly prepared and grassed. There will be no heavy traffic on the aerodrome for some time. Runways are necessary at all aerodromes subject to heavy traffic. In view of that position the estimate of £10,000 for preparing runways on Hogarth's property should be deleted, or else a similar sum added to the estimate of Von Steiglitz's property. If Von Steiglitz's site is chosen it will cost £11,250, plus the loss on the resale of Hogarth's property. That would amount to at least £2,000. Therefore, the cost of Von Steiglitz's property is £13,250 as against £9,120 for Hogarth's property. In both cases it is in leaving out the cost of providing runways, because they would not be necessary except for heavy traffic. I have accepted the estimate of Mr. Hill for drainage, clearing, and preparation of grounds. If Von Steiglitz's property were not overbuilt a value would probably value it at something under £20 an acre. If the site were acquired it would leave Von Steiglitz's property hopelessly overbuilt, and there would, therefore, need to be heavy compensation for severance.

107. *To Mr. Curtin.*—To train a pupil for his "A" licence would cost under normal conditions between £50 and £80. The club's regulations and by-laws have been drawn up, but have not been passed by the full committee, nor have they been submitted to the Civil Aviation Department for approval. I can safely say that it will cost each pupil £25, and in addition he will be asked to pay a deposit of £10 to be refunded upon obtaining his licence and the club receiving the £20 bonus from the Federal Government. In actual practice the £10 deposit is taken out in flying later on.

108. *To Mr. Long.*—If an enthusiast wishes to learn to fly he must be able to pay £35, or arrange with his parents or some one else to finance him. It is a question of cost. Many motor enthusiasts cannot afford a motor car. It is not a question of class distinction. Aviation is a form of training and recreation. It costs a certain amount of money, and the cheapest way of getting instruction is through the Aero Club, which is supported by Government subsidy. The club is registered as a company, and if it allowed one person to train without making the full payment it would have to extend the privilege to others. The only way to overcome that difficulty is to apply to the Government for a special bonus to assist those who cannot afford to learn to fly. There would be no objection on the part of the club to any intending member so long as he bears a good character, no matter whether he be the humblest individual or the highest in the land. Altogether it costs a trainee over £40 in costs and fees.

109. *To the Chairman.*—For light machines, special runways could be dispensed with either on Hogarth's or Von Steiglitz's property. I should imagine that if Hogarth's property were drained, graded, sown with ryegrass and rolled, it would carry a tractor in the winter time. Such a surface would be suitable for use by heavy machines for the next ten or fifteen years.





half a minute the machine is gone. At Longreach the position is quite different. If the engine gets out the pilot simply lands in another paddock. The land is on an engine when it is half cold and climbing, and therefore it is likely to stall after taking off at about 200 feet.

121. *To Mr. Curtin.*—I consider that Hogarth's property, if well grassed and rolled, under ordinary circumstances, carry any type of plane. It would certainly not be necessary to cover the surface with 6 inches of gravel in order to provide a runway. In Queensland, where the ground was very clayey and not grassed, only once in twelve months was the runway necessary. If the property is well drained and has a good mat of grass, it should not require any gravel for runways. I have had experience of fogs in the vicinity of the proposed site. I represent the Shell Company. I used to leave Launceston of a morning in the fog. When travelling along the Evandale-road I would commence to run out of the fog somewhere near Grubb's property. As soon as I left Evandale I would again run into fog and remain in it all the way down to the Nile. I have never seen a fog at Hogarth's property. There may be a light fog there now and again but nothing that would interfere with aviation. The visibility of the aerodrome from the air would not be impaired through fog once in ten years. Von Steiglitz's property is subject to fogs in the winter time. I have seen fogs lasting all day and when I have been out along the road I have always reckoned to get into sunshine near Hogarth's. I have always thought what a wonderful place it would be for an aerodrome, although I think the site is too far out from the city. I selected Stanley as a starting point because it was the closest place to the mainland. I had a single-engined machine and the quicker I crossed the Bass Strait the sooner I would be pleased. The question of expense had also to be considered. I would select Hogarth's site near Launceston as an aviation base to serve Tasmania. Stanley is 143 miles from Launceston and is served by railway, but, of course, it is not a centre of population like Launceston is.

122. *To Mr. Holloway.*—Stanley is over 300 miles by railway from Hobart.

123. *To Mr. Curtin.*—Stanley is the shortest direct route to the mainland. I had a light machine which would only carry a certain amount of petrol, and had no option but to take a direct route. Hinkler came direct to Launceston. I have interests in King Island and the north-west coast. I have no interest in the east of Tasmania, but I would recommend the eastern route. The biggest enemy of the flier is the weather. The weather is not so bad on the eastern side and the stretches of water are less. I was interested at one time in Airways Limited. That company was never actually formed, but ten years ago it proposed to establish a service with big machines, and surveyed the eastern route for that purpose. Owing to weather conditions the eastern route was found to be preferable to the western route.

124. *To Mr. Gregory.*—The establishment of an aerodrome for the encouragement of civil aviation would be of great value in the defence of Australia. The aim of the Aero Club is to train pilots in Australia and for Australia. I was trained in England. It costs a great deal of money to train an efficient pilot. Once a pilot always a pilot, and any men that we train can readily be used for defence purposes. For that reason alone there should be an aerial base in Tasmania. It would not cost much to prepare runways on Hogarth's property and the ground can be hardened even for heavy traffic in wet weather. The soil is not nearly so clayey as that at Longreach, where only once in twelve months it is necessary to use the runway. A

distance of 350 yards would be quite sufficient for a runway. In Queensland big planes used to take off from an area of that size. The tail skids of a moth plane would hardly mark the ground. The tail of a moth plane can be lifted with two fingers, but it took four men to lift the tail of the machine that I had here. The population of Evandale is about 600. There was trouble in New South Wales owing to the close proximity of the aerodrome to the centre of population; but a lot of that could have been avoided had more care been exercised. Fool flying will take place anywhere. It is against the regulations to fly over cities except at certain heights. The stipulated height is 4,000 feet in South Australia, and in London I think it is 7,000 feet. The height depends on the size of the city. Hinkler had permission to come to Tasmania otherwise he could not have flown across. There is a possibility of danger owing to the proximity of Evandale to Von Steiglitz's property, but that would not worry me much. Some pilots run into danger. At places where there are very few obstacles I have seen machines crashing in the gardens and on house tops, and a lot of people have been hurt in consequence, whereas at other aerodromes close to populous towns no trouble at all has been experienced.

125. *To Mr. Long.*—I have never flown at Mascot. The planes used on any service between Tasmania and the mainland would weigh about 2½ tons. The tail skid would be fairly heavy and would cut into the ground if it were soft. Some tail skids have a cutting angle designed to stop the progress of the aeroplane once it reaches the ground. A tail skid would disturb gravel more than it would a grass track. In Queensland we found that the de Havilland (4) with a steel cutting skid simply ripped the cinders to pieces. I am strongly in favour of encouraging civil aviation. Flying is still more or less in its infancy, but it must come.

Unless it is encouraged by the Government the development of aviation will be considerably retarded. Even now Australia is years and years behind the times. Quite a number of ex-pilots and future pilots have assured me that as soon as the aerodrome is established they will buy their own machines and start flying. They would be charged a fee for the use of the aerodrome. The greater the number of people that own aeroplanes the sooner will aviation develop. An air mail and passenger service would develop to a considerable degree if subsidized by the Government. If it is not subsidized the service will never carry on. There is some talk of the Matthews Aviation Company starting an experimental service and charging £10 per passenger. I contend that people will not pay £10 merely to travel by air. The fare should be £4 10s. at the most with the possibility of an early reduction; but this can only be done by the service being subsidized. The aerodrome near Launceston should be the base for Tasmanian aviation. My interests are not in Launceston, but I have to consider this proposal from a Tasmanian point of view. I have been in touch with the municipal councils of Emu Bay, Table Cape and Mosey as to the advisability of providing sites for landing grounds, and they have all agreed to provide them. The Burnie Council has no site, but it is quite prepared to do what it can for aviation.

126. *To Mr. Holloway.*—Point Cook is purely a military establishment and is used for training pilots. The Aero Club will carry out the training in Launceston, and there is no reason why the training should not be extended to Hobart. By making use of emergency landing grounds passengers and mails could be carried within Tasmania. For instance, at Brighton, which is about fourteen miles from Hobart, there is an area which needs no preparation as a landing ground, with the exception of the removal of a few gum trees. The difference between an aerodrome and a landing place is that an aerodrome is equipped with hangars and

workshops and in bad weather the machines can be housed. When a machine is at an emergency landing ground and bad weather comes up the only thing to do is to return to the aerodrome for shelter. When I flew to Hobart I tied my machine up for the night, but a gale of wind sprang up and blew it to pieces. Had there been an aerodrome in Tasmania I would have started the machine and returned to the aerodrome in order to house it in the hangar. Had it not been for that occurrence I would be flying to-day. Practically any machines could land passengers and mails at Brighton and return to the base. Civil aviation could easily be carried on with one central base. With the base at Launceston instructors attached to the Aero Club could fly to Brighton to train pilots, and if the weather became bad could immediately return to the base. There must be a base for shelter and repairs, just as a submarine must have a mother ship.

127. *To Mr. Curtin.*—One man who is running a passenger service to Burnie is very keen on aviation. He is practically prepared to sell out his business to get the money to learn to fly. That should not be necessary, because he is keen enough to make as good a pilot as Hinkler.

128. *To Mr. Holloway.*—I am satisfied that, with the establishment of a central aerodrome, there will be sufficient landing grounds throughout Tasmania to make civil aviation a success.

129. *To Mr. Cameron.*—I am satisfied that Launceston is the proper place at which to have the central aerodrome for Tasmania. It should be the Tasmanian terminal for an overseas passenger and mail service. Modern practice is to fit the larger type of planes with wheel instead of tail skids. Therefore the likelihood of runways being torn up when the planes land will not be nearly so great in the future as it has been in the past. All, or nearly all, the latest planes are being fitted with wheels instead of tail skids.

130. *To Mr. Gregory.*—There would be no need to light the aerodrome at night for civil aviation, not unless there is night flying. Trainees are not allowed to fly beyond a 5-mile radius of the aerodrome. When I learnt to fly I was not allowed to go beyond gliding distance of the aerodrome. It is only a short run from Victoria to Tasmania, and therefore there is no need for night flying.

131. *To Mr. Holloway.*—I have often landed at night with the assistance of emergency flares. The flares are placed in line down wind and another at the side, and the pilot lands in between.

*That witness withdrew.*

William Frank Stewart, Agent, Launceston, sworn and examined.

132. *To the Chairman.*—I have had a little flying experience, and have obtained my wings. I am a member of the Aero Club. I am aware of the proposal to establish an aerodrome at Launceston. I have no recent knowledge of aerodromes in other States or abroad. During the war, of course, I had some little knowledge, because I went through the training in England, but since then, beyond being to Essendon, I have had no experience at all. I know fairly well the type of machine that will be used by the Aero Club. I do not know its weight. I have been over the aerodrome site. If it were drained, levelled, rolled, and well grassed it would be quite suitable for light planes as proposed to be used by the Aero Club. I understand that there is a proposal for an air service between Tasmania and the mainland, under consideration. Captain Matthews has already purchased a machine which he intends to put on this run. If he carries passengers and mails it is essential that he should have landing places as close

as possible to Melbourne and Launceston. I do not think that Hogarth's property should need any special runways for heavy planes. For the needs of the Aero Club it would be sufficient to grade 60 or 60 acres and to leave the remainder to be developed as required. I know Von Steiglitz's property. It is a good level piece of ground, and would make a suitable aerodrome site. There is some timber on the western side. The surface of Von Steiglitz's might be a little drier than that of Hogarth's property. The aerodrome should be as close as possible to Launceston. Every convenience should be given to the members of the Aero Club and others who visit to fly. There is a landing place at Brighton, near Hobart, but I do not know it very well. I do not know of any site near Hobart that could be used for training purposes. We must have a central aerodrome, and I think that any aeroplanes engaged in the mail and passenger service would make use of an aerodrome near Launceston. We certainly want additional mail facilities. Even for the use of the Aero Club and the training of pilots it is essential to provide an aerodrome near Launceston. Launceston is the centre of distribution to the north-west coast, the east coast, and the south. It would not be economical to provide an aviation base at any place other than Launceston. I have lived in Launceston all my life. I have travelled all over Tasmania during the last nine or ten years, and I have had experience of fogs. Fogs are less frequent on Hogarth's property than on Von Steiglitz's property. Generally, the fog hangs in Launceston and beyond Evandale. Von Steiglitz's property is more flat than Hogarth's, and the river is alongside; therefore it is more subject to fogs.

133. *To Mr. Cameron.*—The establishment of this aerodrome would be a big factor in the success of an air, mail, and passenger service between Tasmania and the mainland. The municipalities are quite anxious to assist civil aviation in Tasmania, and many of them would be prepared to provide landing grounds. The people of Tasmania generally are keenly interested in aviation.

(Taken at Launceston.)

WEDNESDAY, 23RD JANUARY, 1930.

Present:

Mr. Lacey, Chairman;	
Senator Sampson	Mr. Gregory
Mr. M. Cameron	Mr. Holloway
Mr. Curtin	Mr. Long.

William Robinson, representing the Launceston Fifty-thousand League, sworn and examined.

134. *To the Chairman.*—I am aware of the proposal to establish an aerodrome at Launceston. Our league has given no consideration to this subject. We were under the impression that the committee was inquiring into the suitability of the site and not the possibility of the establishment of an air service. We held a meeting last night, but we have not had time to prepare a written statement. I am here to give any information within my knowledge respecting the possibility of establishing an aerial service between Tasmania and the mainland. The position of the site would be a matter for expert opinion. Its proximity to Launceston, the biggest centre of the railway and roadway systems of the State, presents the best possibility of using the aerodrome commercially. For the information of the committee, I have obtained a map of Tasmania and drawn approximately the position of the aerodrome within the 10-mile radius. That covers a greater producing area, a greater population, and a greater proportion of rail and road systems than any



other part of the State. There is no more suitable position for an aerodrome in the State. I leave that map for the committee. I also hand in a booklet prepared by the Launceston Fifty-thousand League, pointing out the advantages of Launceston as a city and its commercial activities. We are hoping for the early establishment of an aerial service between Tasmania and the mainland. We consider that the Commonwealth Government should give more consideration to Tasmania. When Captain Matthews was here twelve months ago investigating the establishment of an air service to Tasmania, the league informed him that it would do all in its power to assist him. We have heard nothing further from Captain Matthews on the subject. Our energies for the last twelve months have been mainly concentrated on the shipping service. We were under the impression that when Captain Matthews completed his arrangements an aerial service would be established to Tasmania. No other proposition has been brought before the league. The aerodrome would be used solely for civil aviation and the training of pilots. I think that an aerial service from Tasmania to the mainland would pay, and would not seriously interfere with the passenger traffic on the steamers. The saving in the time of a journey by air would outweigh the flying risks. Mails are being carried on aerial routes on the mainland and it is quite possible, in view of the development taking place in aviation, that large quantities of mail will be carried by air in the future. Time, to the business man, is money, and given the opportunity, many business men would avail themselves of an aerial service, especially if it touched at Flinders Island and King Island. Both places are isolated, and the steamers that ply there very often cannot call because of bad weather. Planes could land on both islands. Flinders Island would be particularly adapted to seaplanes. I have been a native of Launceston for 30 years, so I know the district fairly well. I am acquainted with Hogarth's property, but not with Von Steiglitz's. I know the nature of the surrounding country, also the nature of the soil. Hogarth's property, in the winter time, would scarcely become boggy, because it is situated on the top of a hill. It could be easily drained, and I think the ground would set hard if ploughed, rolled, and grassed. Fogs are prevalent in the valley of the Tamar, but they rarely hang about Hogarth's property. From 75 per cent. to 90 per cent. of the fogs are not more than about 20 feet from the ground. I live at Trevellin, and I can stand in the sun and just see the chimneys and smoke-stacks of Launceston standing above the fog. Fogs hang about until about 11 a.m. Hogarth's property is particularly free of fogs.

135. *To Mr. Long.*—The Commonwealth Government would be justified in establishing this aerodrome. It cannot spend too much money in assisting the development of Tasmania. The establishment of an air service would lead to the quicker despatch and arrival of mails, and that would benefit the community generally. Business men would derive a distinct advantage from the establishment of an aerial service. There is usually a surcharge on the mails carried by air, and as the air mail on the mainland is largely availed of, it must be of considerable benefit to business people. As it has been necessary to inaugurate an aerial service on the mainland where there is no isolation of the States, it is much more essential that an air service to Tasmania should be established. The aerodrome at Launceston should be the Tasmanian air centre. If the aerodrome were established, it would be distinctly to the advantage of the municipal and shire councils to establish landing places, and I believe that they would do that.

136. *To Mr. Cameron.*—In respect of our trade, we import from Melbourne and export to Sydney. With the establishment of an aerial mail service there would be greater activity between the business people of Victoria and Tasmania. Most of the Sydney business people go to Melbourne before coming to Tasmania, and therefore our business activities are more with Melbourne than with Sydney.

137. *To Senator Sampson.*—Our mail service is not satisfactory, particularly in the winter time. I do not think that an aerial service would have a detrimental effect upon the steamer service. As a rule a business man makes a trip at short notice, and in the summer time they have to put up with shake-downs on the steamers. We get five mail deliveries a week from the mainland.

138. *To Mr. Gregory.*—There would be about 20 hours between the time of placing mails on the boat in Melbourne and the time of delivery at Launceston.

139. *To Senator Sampson.*—In Launceston we can reply to mails the day after delivery, but that is not so elsewhere in Tasmania. The mail arrives in Hobart on the evening of the day of arrival at Launceston.

140. *To Mr. Curtin.*—As far as Launceston is concerned, we would be satisfied if we had a daily mail, the boats arriving with the same regularity as they have been in the last three months. In that case an aeroplane service would be no improvement, except in the carriage of mails between Launceston and Melbourne. An aerial mail service between Tasmania and the mainland would be a public utility. There are aerial highways on the mainland, and if they are profitable surely an aerial service to this State, which is so isolated, would be profitable also. Rather than an aerial mail service I would prefer an improved steamer service with better class of steamers, providing a daily and regular mail service. That would considerably improve the tourist traffic to Tasmania. An improved shipping service would be more advantageous to the community as a whole. We could only regard an aerial service as being supplementary to the present steamer service.

141. *To the Chairman.*—The volume of passenger traffic through the Tamar to Launceston is greater than that to all the other ports in Tasmania put together, so that Launceston is the most central position for an aerial base to serve the whole of Tasmania. The aerial service could be used to break down the isolation at Flinders Island and King Island. The planes could come to Tasmania by one route and return to Victoria by the other.

142. *To Mr. Curtin.*—I suggest that the service from Melbourne should be via King Island and from Launceston via Flinders Island. The Flinders Island route would be preferable because the spans between the land are not so great as they are on the route via King Island.

143. *To Mr. Holloway.*—Eventually an aerial service will be necessary to both King and Flinders Islands. The population is not very great on either of the islands, but there is no doubt that the people are isolated.

144. *To Mr. Curtin.*—It is not always the wind that prevents the steamers from calling at Flinders Island. It is the heavy sea rolling in from the Pacific.

145. *To Mr. Long.*—King Island is served by the *Marswah*, which plies between Melbourne and the west coast of Tasmania. Frequently passengers are over-carried on account of bad weather.

146. *To Mr. Holloway.*—In bad weather the route via King Island would be worse than that via Flinders Island.

*The witness withdrew.*

Andrew Raelburn, President, Chamber of Commerce, sworn and examined.

147. *To the Chairman.*—I am aware of the proposal to establish an aerodrome at Western Junction, near Launceston. The Chamber of Commerce had not considered this proposal very seriously until just recently. There is no need for me to traverse any of the ground that has been covered by previous witnesses regarding the cost of the site and its suitability as a landing place. I wish to impress upon the committee the fact that Tasmania is very isolated, particularly in time of strikes. Our only contact with the mainland is by the shipping service, and even that is sometimes disturbed. The Chamber of Commerce would be pleased if an additional communication were established so that Tasmania would not entirely be cut off from the mainland during a strike. On the assumption that Launceston will always occupy its position as a distributing centre both for passengers and mails, the Chamber of Commerce looks favorably upon the proposal to establish an aerodrome at Western Junction. The members of the committee are impressed with the possibilities of the site because of the facilities for distributing both by rail and roadway. Even supposing there was a terminal aerodrome elsewhere surely the needs of the northern part of Tasmania should be catered for by the establishment of an aerodrome at Launceston. It would not be economical to carry mails and passengers from Melbourne straight to Hobart and then bring them back to Launceston. There is a certain amount of risk in every new project. If there is to be an aerial service there must be an aerodrome. Is not that a *sine qua non*? Tasmania is part of the Commonwealth, and the Federal Government is already subsidizing the mail service. Is it not right that it should also subsidize an aerial service? I have no doubt that an aerial service would be utilized by commercial men, particularly when travelling on urgent business, and in cases of emergency. At Christmas time we get a mail a day by water and at that period an aerial service would not be of much advantage, but in the winter-time the mail service is curtailed to three days a week. The people of Tasmania have had no experience of flying and we must cultivate in them an air sense. We could not expect an aerial service to flourish at once. It would have to be developed, and branches could be established to the north-west and north-east coasts and also to the midlands. An aerial service to Tasmania would give a special mail service like that on the east-west route. Surely Tasmania should be put in the same position as that of the other States. Flying would take place in the daylight, and an aeroplane could leave Melbourne at 9 a.m., arrive here at noon, and return in the afternoon. A business man in Launceston could go to Melbourne, carry out his business, and return the same day. I should say that the aerodrome should be as close as possible to the city. It would be economical to establish it at a distance of 9 miles from Launceston; one advantage being that the land there would be cheaper than that closer to the city. The distance of 9 miles from the city would not be any great disadvantage to an aerial service.

148. *To Mr. Lang.*—Launceston, because of its central position should be the base of an aerial service to Tasmania. The Federal Government would be justified in establishing this aerodrome, mainly because of the isolated position of Tasmania. The Commonwealth has promised that we should have additional communication with the mainland, and I certainly think that it should be given to us. An improved steamer service would certainly be a big advantage to us, but it would not get over the difficulty of isolation in time of disturbance and upheaval. Our desire

is to expedite communication. The establishment of aerial branches within Tasmania is of minor importance compared with the establishment of a supplementary service with the mainland. One thing leads to another, and people have to become educated to the new means of transport, particularly as they are isolated from the mainland. Air communication is quite common to the people on the mainland, but it is new to us. I have made an inspection of Hogarth's property, and I consider it a good distributing centre. Everything else being equal, I would not consider an additional distance of 4 miles any considerable disadvantage.

149. *To Senator Sampson.*—An aerial mail as a supplementary service to the shipping service would be of great value to the community.

150. *To Mr. Gregory.*—Launceston has, during the past few years, been making very steady progress. New industries have been established. We trade a fair amount with New South Wales and South Australia, but the great bulk of our trade and communication is with Victoria. Even if Launceston is not made the terminal air port, there must be an aerodrome at that town. Sometimes we have been a week without receiving a mail, and because of our isolation we consider that we are entitled to a supplementary service. It is absolutely essential that an aerodrome should be established at Launceston.

151. *To Mr. Cameron.*—The *Nairana* is the best passenger vessel travelling between Launceston and the mainland. We really want a slightly larger boat because the trade has grown. The *Nairana* is certainly better than the *Loongana*. There would be no objection on our part to having a bigger vessel trading between Launceston and the mainland.

*The witness withdrew.*

Charles Manfred Gollins, Council Clerk, Evandale Municipality, sworn and examined.

152. *To the Chairman.*—I am aware of the proposal to establish an aerodrome near Launceston. I have been deputed to make representations to the committee on behalf of the Municipality of Evandale. I submit the following statement:—

1. We believe that the land at Andora would lend itself much more favorably than at Western Junction, because of its gravelly and porous nature.
2. When Captain Anderson was here searching for Sturt, the former made the remark that Andora would make an admirable aerodrome.
3. The cost of the land at Andora would be in all probability 50 per cent. cheaper than at Western Junction.
4. Ploughing can be carried out on Andora all the year round.
5. Gravel is obtainable right on the spot at Andora, whereas it is only obtainable at considerable distance at Western Junction.
6. It is understood that, from a flying point of view, the prevailing winds at Andora are much more favorable for taking off and landing than at Western Junction.
7. Electric power and light are right on the spot at Andora, at Western Junction it would not be available within three miles.
8. Andora has a railway running right through the property, and a siding could be installed at very little cost, if at any time a passenger and mail service were decided upon.
9. There is an abundant water supply within close proximity at Andora.
10. The land at Western Junction, especially in the winter months, is very heavy and much like glue.
11. The drainage at Andora would be a simple matter, whereas at Western Junction it would probably involve considerable expense owing to the situation of the ground.
12. In spite of evidence already given, fogs prevail at Western Junction—even this morning at 4.30 a.m. there was a sea or Tamar fog at Western Junction and none at all at Andora.

13. With regard to the danger alleged from taking off or landing at Andora, there is little, if any, difference in the level of the two places. Evandale is about 10 feet higher than Andora.

That statement was prepared in the light of the personal experience of the members of my council in respect of both properties. There is plenty of gravel at Andora, but none on Hogarth's property. We have no reliable data in respect of fogs, but I speak from personal experience and the experience of several reliable persons. There is little or no difference between the two properties in respect of fogs. I have, when driving into Launceston from Evandale, often run into a fog, and after travelling a mile or two, have run out of it. I value the property at Andora at about £10 an acre, and Mr. Hogarth's property at £20 an acre. Hogarth's property will grow anything, but the land at Andora is fit only for the growing of Algerian oats. That is due to the lightness of the soil. The soil at Hogarth's property would hold the moisture in the winter time. It has been mentioned by previous witnesses that fogs do not occur at Western Junction to any extent, while fogs are prevalent at Andora. My evidence is to the contrary. We are given to understand on reliable authority that the prevailing winds at Andora would be most advantageous for flying, whereas at Western Junction the position is the reverse. The Andora land is very open and the winds would be helpful from any quarter. Hogarth's property is not as suitable on account of the surrounding hills and valleys. The distance from Von Steiglitz's property to the post office at Evandale is approximately a mile. The population of the Evandale township is 750. I read an account in the press that the proximity of the Evandale township to Von Steiglitz's property would make the site dangerous for flying, but Captain Huxley is reported to have stated that the winds are very favorable for taking off and landing on Von Steiglitz's property. The church steeple would be about a mile from the post office at Evandale. Captain Anderson, when searching for Stutt, made the remark that Andora would make an ideal aerodrome. There would be no much difference between the height above sea level of both properties.

163. To Mr. Long.—My municipal council is of the opinion that Andora is so suitable for an aerodrome and could be purchased so cheaply compared with Hogarth's property that the loss involved in selling Hogarth's property and purchasing Von Steiglitz's property would be well worth while. We ask that this proposal be given favorable consideration by the committee. The cost of equipping an aerodrome would be considerably less at Andora than at Western Junction. Von Steiglitz's property is practically all gravel. We make considerable use of that gravel for our roads, and it has always been held that the gravel from Andora is as good as, if not better than, that in any other municipality. Evandale claims to have roads as good as those elsewhere in Tasmania. I consider that the advantages to be derived from the Andora property justify its purchase and the sale of Hogarth's property. The Andora land has a good holding surface and ploughing can be carried out all the year round. The land is of a porous nature and the gravel is reasonably deep. It is deep enough to provide a natural foundation for a runway without any special treatment. My council considers this proposal purely from a Tasmania point of view. It has no interests whatever in the properties. They both happen to be within the municipality. My council undoubtedly regards the establishment of an air service as essential to the future development of Tasmania. The municipalities have not conferred together in respect of the provision of landing grounds, but I should say that there would certainly be co-operation between them in that respect, provided that a central base was established at Launceston. The establishment

of an aerial service between Tasmania and the mainland would expedite communication and strikes would not affect us to the extent that they do now.

154. To Mr. Cameron.—None of the municipalities of Tasmania keeps a record of capital values of land. They keep a record of annual values which are based on 4 per cent of the capital value as fixed by the Government. All our valuations are very old and probably fairly low. If they were re-assessed to-day probably many of them would be increased. I am speaking now of agricultural land. I have a pretty good idea of what the properties are worth. The value of Hogarth's property would be double that of Von Steiglitz's property. I have lived in the locality practically all of my life, and I happen to be a buyer of hay. Mr. Hogarth seldom grows oats. His land is of a heavy character and grows wheat and barley; whereas Von Steiglitz's land grows only Algerian oats. I should say that £12 an acre would be a fair price for the Andora property, and up to £24 an acre for Mr. Hogarth's property. That would be without building improvements. Only the other day Mr. Hogarth bought a property opposite his previous place, and not nearly so good, for £21 an acre. It is generally acknowledged that the property acquired by the Commonwealth is one of the best properties in the municipality. Von Steiglitz's property might carry a sheep to the acre.

155. To Mr. Curtin.—There was a fog at Western Junction this morning at 4.30, but there was none at Andora. In the winter time there are fogs at both places, and it is hard to say which place has the more fogs. There are heavy fogs at night, but in our locality they do not hang about in the day-time like they do at Launceston. It would be most unusual for a fog to be anywhere about Evandale up to dinner time; and that would apply also to Western Junction. I fail to see that Western Junction has any advantage over Andora in respect of railway facilities. The main railway line runs close to Von Steiglitz's property. Andora is about three miles from Western Junction siding. Either site would need some sort of conveyance in which to carry mails and passengers between the aerodrome and the railway. About twenty trains a day, taking both railway lines, would leave Launceston and pass through Western Junction. On Sunday morning there is the best train. I am not aware of any goods traffic that passes through Western Junction siding on Sundays. So far as Andora is concerned, the railway would be very convenient because it runs close to the property, whereas at Western Junction the railway is half a mile from Hogarth's property. It would take about ten minutes to travel by road or railway from Hogarth's property to Von Steiglitz's property. As far as we can judge that portion of the road will never be bitumen surfaced, because it is not a main road. It will always be a gravel road and of course a good road. It is worse now than it is likely to be for many years to come, because the main road is blocked because of the repairs to the Perth bridge, and all the traffic is being taken over the gravel road. Both properties are within the municipality, so that the establishment of an aerodrome would mean the loss of rates. The general opinion among the residents of Evandale is that they would like the aerodrome established at Andora. I suppose that the establishment of an aerodrome would naturally increase the value of the adjacent property, because it would probably mean more business to the township of Evandale. The members of my council did not consider that aspect.

156. To Mr. Gregory.—If the whole of Hogarth's property were put up for auction tomorrow it would probably average about £20 an acre. If portion of the land were compulsorily acquired compensation would have to be paid for severance. When the heart

of a property is taken out the value of the remainder must naturally decrease. It would cost 6s. or 7s. a yard to cart gravel for a distance of four miles. At Andora we have splendid gravel pits. My council does not control any gravel pits. We have power to acquire gravel wherever we require it. Of course we always pay compensation. The water supply at Hogarth's depends upon the rainfall; but at Andora the South Esk River runs through the property. It would be about three-quarters of a mile from the river to the centre of the Andora site. There would be no difficulty in getting subterranean water. We do not need wells, but many of the farms have them. The wells are usually from 20 feet to 30 feet deep. There is as much water as is required. We are guided by what Captain Airderson said. He stated that Andora was an ideal spot for an aerodrome, and I take it that he would have in mind any immediate dangers attached to the site, because of the proximity of the site to the township of Evandale. In Perth and in Sydney the aerodromes are situated in the heart of the population. The electric wires are a few hundred yards from the Andora site and from 2½ to 3 miles from Hogarth's property.

157. To Mr. Curtin.—Evandale is at present illuminated with electricity. There is no sub-station there. The supply is transmitted from Longford. If necessary, a considerable supply could be obtained at Andora. Hogarth's property would have to be illuminated from the same source. The system of sanitation at either of the properties would depend upon the decision of the Health Department. I have had experience of septic tank systems on a small scale. Andora would be a better site than Hogarth's for a septic tank system, because of the porous nature of the land. We have no definite system at Evandale. Many people have septic tanks. There is no municipal service, and the aerodrome would have to make its own arrangements for sanitation.

158. To the Chairman.—I am not sure whether there are any high tension wires near Andora. The hydro-electric scheme is controlled by the department. I do not know where the mains are situated.

(Taken at Launceston.)

THURSDAY, 23rd JANUARY, 1930.

Present:

Mr. Lacey, Chairman;

Senator Sampson	Mr. Gregory
Mr. M. Cameron	Mr. Holloway
Mr. Curtin	Mr. Long.

Ingram Gould Hayes, farmer, Launceston, sworn and examined.

159. To the Chairman.—I am aware of the proposal to establish an aerodrome at Launceston. In my opinion it is the wrong time of the year to inspect those properties, because a far better idea of the more suitable ground for landing could be obtained in the winter time. I am the owner of threshing and chaff-cutting plants in the district, and I have, therefore, had considerable experience of both properties. Hogarth's property, if well grassed, would, at any time of the year, carry a heavy traction engine weighing approximately 40 tons. It is impossible to take a traction engine on Von Steiglitz's property during wet weather of winter time. The ground at Hogarth's is black soil, and, if well grassed down, would carry heavy traffic at any time of the year. Von Steiglitz's land, especially that back a short distance from the road, is of a very light nature and in winter time will not carry traffic. It

would be more necessary to make a gravel runway on Von Steiglitz's property than it would be to have one on Hogarth's property. Fogs are about the same at both places, and it is seldom that a fog lasts after 9 or 10 a.m. There should be no difference whatever between the properties in regard to the prevailing winds. Hogarth's property is in close proximity to Western Junction siding, and, therefore, would be an ideal place for the quick despatch of passengers and mails. I have been a farmer in the Evandale district all my life. Some of my property is of a gravelly nature like the land at Andora. I know from my experience that the soil will not carry heavy loads in the winter time while the black soil will. After heavy rains I have seen water lying on parts of Von Steiglitz's property, but never on Hogarth's property. My place is situated about 1½ miles from Von Steiglitz's property, between there and Hogarth's. I have lived in the district 43 years, and I was born on the property on which I now live. Hogarth's ground is sticky on top in wet weather, but, if grassed down, would carry traffic. Von Steiglitz's property is not sticky, but in wet weather when the surface is broken it is soft. I have noticed, when digging post holes, that the soil below the surface is hard in the summer time and of a spewy or pulpy nature in the winter time. The gravel on Von Steiglitz's property is deep in parts, particularly near the road. The gravel is not of great depth anywhere else. The ground near the wattle trees is boggy in the winter time. I do not think that there would be much difference between the properties in respect of fogs. Von Steiglitz's property is worth about £10 an acre and Hogarth's property about £20 an acre. Von Steiglitz's land is more easily worked than the black soil, but I do not think it could be ploughed in the winter time, because it would not bear the weight of a tractor. After the frosts the land mellowed down somewhat. A man could plough 2 acres of Von Steiglitz's land while another man was ploughing 1 acre of Hogarth's land. It would be necessary to pay compensation for breaking up the property. Von Steiglitz's property is much larger than Hogarth's, and is in a very good position. It has extensive buildings. The values that I have given were for the properties without taking severance into account.

160. To Mr. Holloway.—Hogarth's land would be more sticky than Von Steiglitz's in the winter time. It is sticky near the top. The black ground is very stiff to work. It has not a natural top dressing of gravel like Von Steiglitz's property. I am informed that Hogarth's property if grassed down properly would not cut up. I do not think that the wheels of an aeroplane would mark the grass. If well grassed the surface would carry a waggon loaded with chaff in the winter time.

161. To Mr. Cameron.—In the winter time, when the top surface of Von Steiglitz's ground is broken, the soil seems to give way. I have never seen any surface water lying on Hogarth's land. I pass the property frequently. I am certain that a motor car could be driven over the ground during the winter time. I would drive a traction engine over any part of Hogarth's property in the winter time, provided that it were well grassed. The land should be ploughed, harrowed and cultivated a couple of times with a cultivator to bring up a loose surface so as to enable the grass to take well. Both properties would want following if a good grass mat were required. Hogarth's property, if well grassed, would carry a waggon with a 4-inch tire and carrying a load of from 3 to 4 tons.

162. To Mr. Curtin.—I have never seen water lying on Hogarth's property. Under the black soil there is a layer of clay from 8 inches to 7 inches deep. The black soil seems to be very firm and I do not think that

constant usage would make the clay come to the surface. If the land were well grassed and rolled; and aeroplanes could easily land on it. Some additional gravel would be required on Von Steiglitz's property to enable it to carry the weight of the planes in the winter time.

163. *To Mr. Gregory.*—I do not think that Hogarth's property would break up very much because of traffic. It might be better to drain the property, but even if it were not drained it would carry heavy traffic in the wet weather. If the land is well grassed down it will not crack badly.

164. *To Mr. Long.*—Mr. Von Steiglitz always gets his chaff away before the winter sets in because he knows that he cannot carry hay in the winter time. I have frequently been bogged on that property. I have noticed in the winter time that water never lies on the black soil, whereas there is always a certain amount of water on the gravelly land. The water seems to come to the surface. After heavy rains the subsoil of Von Steiglitz's property becomes doughy. If I were in an aeroplane and wished to land near Launceston in the winter time, I should certainly choose Hogarth's property as a landing ground. I have had no flying experience, but I should think that it would pay to have a gravel runway so as to make the ground absolutely safe for landing purposes. I really think that Hogarth's land, even without a gravel surface, would carry heavy aeroplanes. In the winter time Von Steiglitz's land would cut up more than the black soil would. I should think that the hedges would have to be pulled up by means of traction engines and chains, and grubbed afterwards. It would be a fairly expensive item. There is practically no clearing to be done at Von Steiglitz's property. Only a few trees would have to be removed. Hogarth's land is hard and stiff to work, and I think it would be an expensive item to lay agricultural drains through it. I have had no experience of drainage on that class of soil.

165. *To the Chairman.*—Von Steiglitz's property is close to water. I believe that there is a windmill on Hogarth's property and also certain springs. Water is laid on to my property from the Evandale township. Many of the farmers have tanks and catch the rain from the roofs. An aerodrome at Andora would certainly increase the value of land at the Evandale township. The people of Evandale would welcome the establishment of an aerodrome at Andora. A mail and passenger service between the mainland and Tasmania, with its terminal point at Launceston, would be of great advantage to Tasmania. I think that the municipalities and people generally in Tasmania would be willing to co-operate with the central depot so as to provide an intra-state service.

(Taken at Melbourne.)

FRIDAY, 24th JANUARY, 1930.

Present:

Mr. Lacey, Chairman;

Senator Sampson	Mr. Gregory
Mr. M. Cameron	Mr. Holloway
Mr. Curtin	Mr. Long

Air Commodore Richard Williams, C.B.E., D.S.O., Chief of the Air Staff, Defence Department, Melbourne, sworn and examined.

166. *To the Chairman.*—I was not aware of the proposal to establish an aerodrome at Western Junction, near Launceston, until the Secretary wrote me a week or ten days ago. I have not been consulted in any way concerning the proposal. I am not acquainted with the locality of the site, but I have seen the plan which was

supplied to me by the secretary. Most aerodromes suitable for the operation of civil aircraft would be suitable for the operation of service aircraft. The Commonwealth defence plan touches only the northern part of Tasmania in connexion with the reconnaissance of Bass Strait for the protection of shipping. That is the present position, and likely to remain unaltered for many years to come. In that work we may employ seaplanes or landplanes. If seaplanes are employed they will not use a land aerodrome. In any case we would work via the islands, probably both east and west, between the mainland and Tasmania. Western Junction is about 300 miles from Bass Strait, and would be beyond the area in which we would be working, so that from the point of view of our work in war time the locality is rather too far away. If we carry out the work by landplanes they would probably be of a smaller type than those used for civil aviation. If the aerodrome at Western Junction is suitable for heavy passenger-carrying planes, it would certainly be suitable for our planes. The commercial machine normally would probably be more heavily loaded than ours, but I do not visualize that our activities would extend so far south. For our purposes we would prefer an aerodrome nearer the coast. We would like a landing ground with facilities for both landplanes and seaplanes. The Air Force would not be likely to use the Western Junction aerodrome to any extent. At the same time we realize that our planes might be called upon to go anywhere and everywhere, particularly in times of peace, and therefore we welcome the establishment of landing grounds in any part of Australia. If we were looking for an aerodrome to meet our needs during war time we should look for it further north. We would not use an aerodrome at Launceston until we were satisfied that an aerodrome could not be obtained further north. For our purposes, an aerodrome in the vicinity of Swan Reach would be better. No thorough investigation has been made at that point. It is quite possible that within the next few years the Air Force machines would use any aerodrome established in this locality, owing to the fact that negotiations are now proceeding with the Tasmanian Government for the photography of certain areas of land. The aerodromes might be used for that purpose, but not for war purposes. The machine used would be the light day bomber, the Wapiti. That class of machine would not require a specially prepared runway. A good deal of civil aviation carried out in the Commonwealth to-day is being done in light planes. The necessity to prepare special runways for commercial purposes would depend upon the type of plane used. We would not have a machine heavier than those engaged on the east-west service, the Sydney-Brisbane service, and the Brisbane-Christieville service. It would depend upon the nature of the ground whether those machines would need runways. I should think that in a commercial service between Tasmania and the mainland either an amphibian or a land plane would be used. It would need to be a machine capable of operating from the land at both ends. An amphibian, because of its heavy undercarriage, would require a longer run than would a land plane. If the terminal point is Launceston, the most attractive route to the mainland would be via Flinders Island. There would need to be a landing ground at Flinders Island both for war and civil purposes. Some preparation must be made for emergency landings at that island. I shall obtain for the committee data respecting the occurrence of fogs at Launceston and at Western Junction. I do not think that the proximity of a small township to an aerodrome as described in the line of the prevailing wind, would constitute a danger to an experienced pilot. We teach pilots that they must not try to turn back to the aerodrome

when in trouble getting off. There is no need for them to continue absolutely straight into the wind. It would have to be a pretty big obstacle to be a detriment to the aerodrome. I am acquainted with civil aerodromes abroad, and runways are not provided in every case. Most runways consist of an ordinary natural surface, after being ploughed, harrowed, levelled, and grassed. I know the Crofton aerodrome, but not its acreage. There is no doubt that aero clubs have created a great interest in aviation, and given many people an opportunity to learn to fly. The training that is given by the aero clubs to-day is in light planes of a type similar to those that we have adopted for our preliminary training in the Air Force. The value of that training from our point of view depends on the methods of instruction, the extent of the instruction, and the development by otherwise of faults by the pilot after he has been allowed to fly alone. We have taken from time to time in our training schools pilots who have had some training beforehand with aero clubs. In some cases they have qualified much sooner than those who have had no previous instruction, but in other cases the pilots have developed a number of faults which it has taken them some little time to unlearn. Speaking generally, the instruction given at the aero clubs to-day assists in training pilots for war time, and from that point of view the operations of the aero clubs should be encouraged.

167. *To Senator Sampson.*—In 1927, before the Southampton flying boats actually arrived in Australia, it was proposed to carry out experimental and reconnaissance work in regard to a probable air service to Tasmania, but the actual operation of the aircraft has not taken place. That subject came up for discussion and was placed before Cabinet. We were over-optimistic in our opinion as to the suitability of machines for such a service. It would be necessary to use on such landplane machines capable of retaining height with one engine cut out. Not all multi-engine machines are able to retain their height with one engine cut out. No experiments have been carried out by the department with respect to the actual conduct of a service to Tasmania.

168. *To Mr. Cameron.*—Swan Reach is about 20 or 30 miles from Launceston. Our work would not take us to Launceston. If the aerodrome is established at Launceston I hardly think that it will be necessary to establish another aerodrome for defence purposes. It will be many years before the department expends money in Tasmania for defence purposes. If war came we would certainly look for a landing ground nearer to the coast than Launceston.

169. *To Senator Sampson.*—We would require an aerodrome with facilities for both land and sea machines. At the present moment we have flying boats attached to the reconnaissance unit. We do not know what the development of the future may be, but from our point of view any re-equipment of the unit for a reconnaissance of Bass Strait would include triple-engine land machines, because they would carry out the work much more economically than flying boats. Each section of the Air Force, to get the best work, requires different types of machines. We are not justified in expending money in providing a defence aerodrome on the northern coast of Tasmania until the Commonwealth is in a better financial position. We would rather expend money on more important places and trust to the necessities of war to provide a suitable place in Tasmania for our purpose. We do not prepare special runways. We depend upon the natural surface. Experiments have been carried out recently respecting the friction produced in taking off from various types of ground and they show that the preparation of definite

runways would make an enormous difference in the length of run necessary for machines to take off with heavy loads. I should avoid putting down runways unless they were absolutely essential.

170. *To Mr. Curtin.*—Officially we are not consulted by the Civil Aviation Department respecting sites for aerodromes. My works officer and the works officer of the Civil Aviation Department were in the same squad room during the war, and consequently they are friendly and generally know something of what the other is doing. The Air Board is not consulted as to the suitability of civil aerodromes, although they may have some relation to Australia's defence in war time. We would prefer an aerodrome at Swan Reach rather than at Launceston. In working out our plan of defence we must assume that certain action will be taken by some one else. We do not know that our assumption is correct, and therefore we say that any aerodrome may be of use to us in war time, but from the point of view of our known requirements in war, we would seek a site much nearer to our work than Launceston.

The witness withdrew.

Captain George Campbell Matthews, Aviator, Melbourne, sworn and examined.

171. *To the Chairman.*—I am aware of the proposal to establish an aerodrome at Western Junction near Launceston. I am not acquainted with the site, but my representative examined Hogarth's property. I consider it to be suitable for an aerodrome. I have taken into consideration the nature of the soil, the locality and particularly the facilities for transport to and from the aerodrome. It is served by a good road and has a railway right alongside it. An additional distance of 4 miles would not be a vital matter. I consider an area of 100 acres ample for commercial flying. Of course a good deal depends upon the nature of the approaches. With low approaches there is not the necessity to have large areas. I consider that Hogarth's site is ideal. I do not anticipate any difficulty in taking off and landing in all weathers. The ground requires the removal of hedges and the filling in of holes. Then the surface should be rolled and grassed. Even without drainage the ground would be available for aircraft under any conditions. We have completed arrangements to commence a service between Tasmania and the mainland in March. We propose to land at Launceston and to go on to Hobart. I know of no site in the vicinity of Hobart that could be used as a terminal point. We are using a flying boat and we intend to land in the harbour. We propose to follow the eastern route as recommended by Captain Johnson, of the Civil Aviation Department. With our present equipment the time of the journey will be from four to four and a half hours. The machine that we are using is the most up-to-date plane from England. It is a metal flying boat built on what we call amphibian principles. It can take off from the land and alight on the water or take off from the water and alight on the land. It is a modern development. Wheels are attached to the machine and are wound up and down with a gear lever by the pilot. It is a closed cabin machine carrying four persons. It is the last word in British design and construction, consisting of an all-metal hull and wooden wings. It is double engine and will fly with one engine cut out, at the same time retaining its height. We propose to run a service once a week, and we suggested to the Postmaster-General that our timetable should work in with the east-west air mail. We shall carry two passengers to begin with. If the experiment is successful we propose using a larger type of boat which is now in course of manufacture in England. It is the same type of machine only larger, and will carry

right passengers. Next year, if the service is successful, we will operate a service once a day each way. Our activities are not dependent upon making arrangements with the Postmaster-General's Department. We intend to operate the Tasmania service. I have been working on this project for the last ten years, and it is now rendered possible by the use of up-to-date and modern equipment. The delay in starting the service has been due to the lack of suitable equipment. I do not think that purely land machines should be allowed to cross Bass Strait. We expect to carry passengers, freight and mail, and to establish communication with the outlying islands. I am sorry to hear that the postal department has stated that it is unlikely that the mails between Tasmania and the mainland will be carried by air. At the request of the Postmaster-General I supplied him with certain information. My letter to him of the 10th January, 1930, reads—

In reply to your letter G.25/10223 of the 31st ult., in regard to the proposed air service between Melbourne, Launceston and Hobart, I would advise you as follows:—

1. I regret it is impossible, at the moment, to give a definite date for the inauguration of the service, although it is anticipated that it will commence some time during the month of March. We are awaiting advice from London as to the date of shipment of the flying boat to be used, and pending further information we are anticipating its arrival in Melbourne towards the end of February.

2. At the outset it is intended to carry out a service between Melbourne and Hobart, calling at Launceston only on an emergency basis. Future development, however, would be on the lines of daily communication with Tasmania, together with a weekly connexion with King and Flinders Islands.

3. While operating on an unsubsidized basis, it is proposed to limit the service to once a week each way. This experimental service could be arranged to suit mail requirements provided that at least eight hours of daylight is available for each through trip, and six hours of daylight for any one trip between Melbourne and Launceston. A tentative time table is appended, which, if thought good, operate in conjunction with the East-West Air Mail—

Thursday—

Depart—Essendon—10.30 a.m.  
Arrive—Launceston—3 p.m.  
Depart—Launceston—3.45 p.m.  
Arrive—Hobart—5 p.m.

Saturday—

Depart—Hobart—8 a.m.  
Arrive—Launceston—0.15 a.m.  
Depart—Launceston—10 a.m.  
Arrive—Essendon—12.30 p.m.

4. This company would undertake the transport of mails between landing places and post offices without additional expense to your department.

5. The nearest post office to the aerodrome at the Melbourne terminus is Essendon which is situated 24 miles away from the aerodrome. At Launceston, the post office is 7 miles from the proposed landing area, while at Hobart definite arrangements have not yet been made, and it will be necessary to advise you further after the visit of Captain Matthews which takes place in the near future.

6. In regard to payment for the conveyance of mails, it is suggested that a guarantee of 100 lb. per through trip be given by the department, this company to receive a full surcharge of 3d. per half ounce on local mail and 1d. on overseas mail.

7. While operating the present equipment, it is not intended to carry ordinary freight, but rather to devote this service to the development of passenger traffic. I trust this information will satisfy all your requirements, but shall be happy to render further advice on any particular points.

We will follow the eastern route, and will never be more than 10 miles from land. The route will be from Wilson's Promontory to Anderson Bay, and we propose to make a landing ground at Bridport. The Civil Aviation Department is preparing a landing place at Wilson's Promontory, right alongside the Government Chalet. It will be a perfect aerodrome, with 1,000 yards runway in each direction. It will be necessary to cut down dead timber and to grub the stumps. I am informed that the department intends to carry out this work for the convenience of this service and subsequent services.

172. To Mr. Curlin.—Our first object is to effect a safe crossing between Tasmania and the mainland.

173. To Mr. Holloway.—The greatest distance between the land points is 60 miles. The crossing is nearly 200 miles. The islands are quite suitable for the landing of seaplanes. A flying boat can always shelter in the lee of an island in case of emergency.

174. To the Chairman.—We are erecting our own hangar at Launceston. We have applied to the department for a lease of certain land on the Launceston aerodrome. In all probability we will instruct pilots at the aerodrome, and as the local suppliers of British aircrafts we must have accommodation somewhere to give Tasmania the benefit of modern light aeroplanes. We have actually called for tenders for the erection of our premises. Flying will start in March, and subject to the lease being granted by the department, the equipment will be created and all the necessary stocks and spare parts stored at the aerodrome. The name of the company is the Matthews Aviation Proprietary Limited.

I do not think that the distance of 9 miles from Launceston to the aerodrome is too far; provided that a suitable area cannot be found nearer to the city. It would not be advisable to have an aerodrome 23 miles distant from Launceston. One of the great attractions of flying to the public is easy accessibility to the aerodrome. We found at Essendon that the distance of 7 miles from the city was a great drawback, particularly as there were no means of communication to the site. The tram line stops 2 miles from the aerodrome. An extra distance of 4 miles in the case of Launceston would adversely affect the economical operation of the company. With reasonable facilities to and from the aerodrome, flying is more attractive to the public. I have had experience of commercial aerodromes in other parts of the world. In 1920, when I came out from England, especially prepared runways were never the case of except in America. I do not consider that special runways would be necessary at Hogarth's property. If the fences and hedges were removed we would be prepared to operate from that aerodrome to-morrow. We are going to Tasmania shortly to investigate and select landing grounds between Launceston and Hobart.

175. To Mr. Holloway.—We are looking for emergency landing grounds between Launceston and Hobart to ensure the safety of the service and to give Tasmania the benefit of the existing aerial routes. The east-west air mail arrives in Melbourne on Thursday morning, and we suggest that we take it straight to Tasmania that day. On the return journey we would reach Melbourne in time to catch the Adelaide express leaving at 4.30 p.m.

176. To the Chairman.—We do not intend to prepare a landing ground on the islands. No matter what the weather is like, there is always a sheltered side to an island, and if the weather is bad the type of plane that we shall be using will be able to land on the lee side of the island. I need to have landing grounds at the terminal points, because it is economically unsound to work from water when one can work from land. When working on water there must be men in attendance, and there is great difficulty in re-fuelling. It would be difficult to land in rough water, and we propose at Launceston to use the aerodrome, and at Hobart to alight in the harbour. There would be no need to have any special feature on the landing ground to enable the flying boat to alight and take off.

177. To Mr. Cameron.—The machine will alight in the harbour at Hobart, the wheels will be wound down and the machine taxied onto a sandy beach for the purpose of disembarking and taking on passengers and re-fuelling. This type has been thoroughly tried out in England, and has passed its tests satisfactorily. It

is a Cutty Sark machine. My representative, who is an experienced pilot, has inspected Hogarth's property, and he is satisfied that machines can take off and land on the ground without any preparation. If the surface were ploughed, harrowed, rolled and well-grassed, it would be quite sufficient for our purposes. The weight of the machine will be 3,500 lb. fully loaded. The large machine which we propose to use later will weigh 8,500 lb. The aerodrome will be quite suitable for both planes even without special runways.

178. To Mr. Holloway.—If the aerodrome is not established it will throw my work back ten years. I placed my order for the machine on the understanding that the aerodrome would be available, and I immediately applied for a lease of a section of the aerodrome. The following is a letter sent by me to the Controller of Civil Aviation:—

We understand that a site for a government aerodrome has now been selected and acquired at Launceston. As it is the intention of this company to establish a branch of our organization at Launceston in the near future, I should be glad if you would inform me what area is available on lease at the aerodrome, and what conditions are being imposed in regard thereto.

I received the following reply—

Referring to your letter dated 28th November, inquiring if an area is available at the recently acquired aerodrome site near Launceston for lease to your company, I desire to advise that proposals for the development of this area as an aerodrome are to be considered by the Parliamentary Committee on Public Works, and until the report of this committee has been presented to Parliament, action cannot be taken to make portions of the aerodrome available for lease to private concerns. Your request will, however, receive full consideration at the earliest date possible.

The following is a letter that I received from Colonel Brinsford, the Controller of Civil Aviation:—

With reference to your letter of 20th November, I note with great interest that your company has decided to inaugurate at an early date an aerial service between Hobart, Launceston and Melbourne. The "Cutty Sark" is a distinct advance on previous British machines of similar type, and should prove satisfactory for the purposes of the experimental flights. I sincerely hope that the results obtained during this experimental stage will justify your obtaining larger aircraft, and prove the need for at least a bi-weekly service between Tasmania and the mainland.

You will realize that it is impossible for me to forecast at this juncture whether a government subsidy would be forthcoming in the event of your deciding to maintain a regular service across Bass Strait; but the Government's future action may be influenced to some degree by the success that attends your efforts and the measure of local support that is shown during the experimental stage. In this connection, however, I would state that, if and when the Government decides to subsidize a service across Bass Strait, there is little doubt that the subsidy will not be allocated without tenders being invited.

This branch will be pleased to give you any information or assistance which lies in its power, and I take this opportunity of wishing your company every success in this progressive enterprise.

It is the practice on the mainland to set apart portions of aerodromes for private firms who wish to use aerodromes for private firms who wish to use Melbourne is planes. The building that we use in Melbourne is 200 feet by 100 feet. At Essendon, I maintain the aerodromes, carry out the flying affairs of the club. I have generally managed the flying affairs in connexion with the tendered to do the same thing in connexion with the Launceston club. The aerodromes throughout Australia are maintained by the Defence Department.

179. To Mr. Long.—The establishment of an aerial service between Tasmania and the mainland will go a long way towards developing aviation in Australia. There have been several spasmodic attempts at flying in Tasmania, but up to date it has been very risky because of the lack of an aerodrome. I regard the establishment of the aerodrome as a sound economic venture. It must eventually be an asset. There would

be ample room at the aerodrome for defence and civil purposes. The regulations applying to Masoot would apply to any government area used as an aerodrome. I do not regard the provision of a runway on Hogarth's property as essential. There are no runways on the aerodromes on the mainland, except in Queensland where the soil is black.

180. To Mr. Gregory. I consider that 500 yards would be the maximum length of a runway, but that question is largely affected by the obstacles in the immediate vicinity of the aerodrome. A ledge 10 feet high would not be an obstacle, but trees 40 feet high and houses and buildings would be obstacles. In the case of obstacles, we would have to allow a certain distance in addition to the normal run. On the Tasmania-mainland service the wheels of the aeroplane would be down when over the land and up when over the sea. It takes about a dozen turns of the lever to wind the wheels. This type has been largely tried out on the preliminary service we are making for 100 lb. of mail, but there is no reason why we should not carry 1,000 lb. of mail with a bigger machine. We would at least require a 5-years guarantee of mails, or an equivalent sum from the Government, to bring the service into line with the existing services on the mainland. It would be very comforting to us to know that we could have the use of an aerodrome at Launceston. I am sure that we cannot get down to the tactics in our arrangements. We have drawings of premises in Launceston, and I am hoping to get there and establish a base for light aircraft. If we cannot get premises we shall be left in the air. The main business of my company is to act as contractors to the Aero Club of Victoria. We are also carrying out a mail service to Cowes. It is being well patronized, and we are now busy with the arrangements for the service to Tasmania. The Government is providing a landing ground at Wilson's Promontory so as to ensure a safe crossing at Bass Strait; otherwise I should have to load up the machine with additional petrol so as to be absolutely on the safe side.

181. To Mr. Curlin.—We intend to stop at Wilson's Promontory on the outward journey only.

182. To Senator Sampson.—I have spent a lot of money on purely experimental work in connexion with a service from Tasmania to the mainland, and naturally I should be very disappointed if an aerodrome were not established at Launceston.

183. To Mr. Long.—The machine has a tail skid, that will not have a damaging effect on the surface of the ground. All machines in Australia have tail skids. We have not yet developed a wheel skid. We do hundreds of landings a day at Essendon and they cause no damage to the surface. They leave only a small track. A tail skid is the only means of steering the plane and of pulling it up. The surface of the Essendon aerodrome is not very good. There are beautiful open paddocks around it and in a heavy rain in winter time it is unwise to operate from there. There is a little rise at the Essendon aerodrome which ensures landing in any weather.

184. To the Chairman.—I have given a great deal of consideration to the prevalence of fogs at Launceston and Hobart. I am a sailor by profession, and I spent fourteen years at sea. The prevalence of fogs does not worry me in the least. We have made arrangements to obtain meteorological information. Like all other means of transport our planes will wait until the fog clears. I think that the fogs will rarely worry us. I have arranged to be supplied with a complete weather report of Bass Strait before leaving for Tasmania. The time of the actual journey will be 4½ hours and of the actual crossing of the water about 2 hours.

185. *To Mr. Gregory.*—I have a definite assurance that I shall obtain a weather report every morning from the Promontory lighthouse which will be in direct communication with the landing grounds. I naturally want some finality to enable me to complete my arrangements for a flying boat service to Tasmania and for the training of pilots at Launceston.

186. *To Senator Sampson.*—The flying boat will be fitted with wireless. We shall be able to transmit messages. We have a very active volunteer section of our club at Essendon, and we are getting splendid results.

187. *To Mr. Holloway.*—We have two classes of pilots, Class A and Class B. Class A licence permits the pilot to fly for pleasure and not for reward. A class B licence is a commercial licence, and it costs in the vicinity of £500. An A class licence costs the individual from £35 to £40, but the Government enables us to give cheap training by supplying us with equipment and a bonus for every pilot who obtains a flying certificate. The clubs are operated not for profit but to provide training as cheaply as possible. An A class pilot could obtain a B class licence by putting in the

necessary amount of flying time and passing a fairly stiff examination both technically and medically. No provision is being made for the training of commercial pilots. A great number of young fellows in this country are anxious to take up flying, and without an aerodrome in Launceston many of them will be left lamenting. I have put up a proposition to operate a commercial school. Nearly all our commercial pilots have been brought out from England. I have received 500 applications from young Australians who wish to become commercial pilots. There are no facilities for training them at present. It is expensive training, and the average youth cannot afford it. We old pilots have long years of experience behind us, and the public has a certain amount of faith in us. I doubt whether there will be the same degree of faith in the young pilots that are trained for commercial aviation. The Defence Department trains service pilots. In isolated cases, pilots have left the department and come to us. The pilots who have been trained at Point Cook have, from one point of view, a lot to learn. They are trained mostly for flying operations. We cannot afford to crash. To that extent our training is really different from air force training.