

1937-38.

THE PARLIAMENT OF THE COMMONWEALTH OF AUSTRALIA.

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PARLIAMENTARY STANDING COMMITTEE ON  
PUBLIC WORKS.

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REPORT

RELATING TO THE PROPOSED ERECTION OF A

TERMINAL BUILDING

AT THE

KINGSFORD SMITH AERODROME, MASCOT, NEW SOUTH WALES.

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(Eighth Committee.)

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Senator Gordon Brown.  
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(Ninth Committee.)

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EXTRACT FROM THE VOTES AND PROCEEDINGS OF THE HOUSE OF REPRESENTATIVES,

No. 12. Dated 25th August, 1937.

4. PUBLIC WORKS COMMITTEE—REFERENCE OF WORK—KINGSFORD SMITH AERODROME, MASCOT, NEW SOUTH WALES.—Mr. Thomas Paterson (Minister for the Interior) moved, pursuant to notice, That, in accordance with the provisions of the *Commonwealth Public Works Committee Act 1913-1936*, the following proposed work be referred to the Parliamentary Standing Committee on Public Works for investigation and report:—Kingsford Smith Aerodrome, Mascot, New South Wales—Erection of a Terminal Building.

Mr. Thomas Paterson having laid on the Table plans, &c., in connexion with the proposed work—

Question—put and passed.

EXTRACT FROM THE VOTES AND PROCEEDINGS OF THE HOUSE OF REPRESENTATIVES,

No. 5. Dated 7th December, 1937.

6. PUBLIC WORKS COMMITTEE—REFERENCE OF WORK—KINGSFORD SMITH AERODROME, MASCOT, NEW SOUTH WALES.—Mr. McEwen (Minister for the Interior) moved, by leave, That, in accordance with the provisions of the *Commonwealth Public Works Committee Act 1913-1936*, the following proposed work be referred to the Parliamentary Standing Committee on Public Works for investigation and report:—Kingsford Smith Aerodrome Mascot, New South Wales—Erection of a Terminal Building.

Mr. McEwen having laid on the Table plans, &c., in connexion with the proposed work—

Question—put and passed.

LIST OF WITNESSES.

Follett, Frank William, Managing Director, Adastral Airways Ltd.  
Henderson, Edwin Hubert, Chief Architect, Department of the Interior.  
Hepburn, Wing-Commander Allan, Director of Works, Department of Defence.  
Holyman, Ivan Nello, Director Australian National Airways Proprietary Limited, and Airlines of Australia Limited.  
Hoy, Charles Andrew, Commonwealth Works Director, New South Wales.  
Johnston, Edgar Charles, Controller-General of Civil Aviation, and Chairman of the Civil Aviation Board.  
Knox, Edward, Engineer, Works and Services Branch, Department of the Interior, Sydney.  
Mehaffey, Maurice William, Director-General of Works, Department of the Interior.  
Mitchell, George Finlay, Collector of Customs, New South Wales.  
Murray-Jones, Allan, General Manager and Director, DeHavilland Aircraft Proprietary Ltd.  
Tracy, Norman James, Journalist, Sydney.



# ERECTION OF TERMINAL BUILDING AT THE KINGSFORD SMITH AERODROME, MASCOT, NEW SOUTH WALES.

## REPORT.

THE PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS, to which the House of Representatives referred for investigation and Report, the question of the Erection of a Terminal Building at Kingsford Smith Aerodrome, Mascot, New South Wales, has the honour to report as follows:—

### INTRODUCTORY.

1. The Civil Aviation Branch of the Department of Defence came into being at the end of 1920, to give effect to the Government's decision to foster and control the development of private and commercial aviation. In October, 1921, the Commonwealth acquired at Mascot a site to be used as a civil aerodrome to serve the city of Sydney. A certain amount of levelling, grading, and minor drainage work was immediately carried out to permit of the area being used for the purpose for which it was intended, and several inexpensive buildings were erected to house aircraft, and facilitate the development of civil aviation.

2. In 1929, Parliament asked the Parliamentary Standing Committee on Public Works to investigate and report upon a proposal aiming at the systematic improvement of the aerodrome and the provision of those facilities that would be necessary to cater for the increase in aerial activity as it developed. As a result of its inquiries the Committee recommended that a programme of steady development be embarked upon, including:—

- (a) drainage and improvement of the existing landing areas;
- (b) provision of footpaths, water, sewerage and similar services;
- (c) provision of a suitable building area, including the necessary drainage and facilities for the proper handling of aircraft;
- (d) erection of additional buildings;
- (e) provision of facilities for the public (parking areas, &c.),

the estimated cost of which was set down at £40,000. In addition, the Committee recommended the acquisition of certain adjacent lands which it considered necessary to make the area a first-class airport worthy of the city of Sydney.

### PRESENT PROPOSAL.

3. The proposal now submitted is for the Erection of a Terminal Building which will provide accommodation for officials of the Civil Aviation Branch and of other Commonwealth departments, and for Air-line companies operating at Mascot. It will be a terminal station which will function as a central point for the control of visitors and passengers, and for the regulation of the movements of aircraft; and has been designed as part of a general scheme to provide for the development of the area as an airport worthy of the importance of the city of Sydney. The site selected for the building is in a central position in the vicinity of the existing Aero Club building.

### REASON FOR THE PROPOSAL.

4. It is represented that at the present time the air passenger services which are operated by six companies in Sydney, are making considerable demands on the use of the Kingsford Smith aerodrome apart from the Aero Club and other flying and training organizations. It is said that the daily attendances of the public amount to 150 on week days, 500 on Saturdays, and about 2,000 on Sundays. The passengers using the air services number some 500 per week and it is considered not to be beyond the bounds of possibility that this number may increase to 5,000 per week.

5. With the increasing number of aircraft arriving and departing, it is claimed that it is necessary, in order to avoid accidents, to place all operations under strict discipline. It is proposed therefore to place the station in charge of an Aerodrome Control Officer who will regulate aircraft movements by keeping planes in their hangars or in the air until the way is clear for them to take up passengers or to land.

This officer will control aircraft within a six mile radius by means of the signalling and aerodrome lighting facilities to be operated from the station. The station will also provide for a radio control officer who, in close touch with the Meteorological Officer, will control aircraft outside the six mile radius.



## DESCRIPTION OF THE PROPOSED WORK.

6. The building is designed to house in an economical manner, the officials and services required to handle the traffic at an airport, and is similar to terminal buildings provided at airports in other parts of the world, and will have a total floor space of 24,000 square feet. The plan was produced by the Department of the Interior in collaboration with officials of the Department of Defence, one of whom recently conducted a complete examination of terminal buildings in Europe and in the United States of America. The plan submitted provides for a central concourse 90 feet by 37 feet with a waiting hall for passengers 60 feet by 25 feet, space for baggage and Customs facilities, and office space for Air-line companies operating through the airport.

Passenger comfort is considered in the provision of a coffee bar and cafe, with kitchen and services, and blocks of lavatories for both sexes. The remainder of the ground floor is taken up with space for Customs, and post office, mail and freight handling, and room for a medical officer attending to quarantine services. The first floor provides offices for Civil Aviation officials, a meteorological officer, and a flat roof for the accommodation of sightseers, while the main roof will give further space for that purpose. It also houses the radio and control tower and provides a certain amount of storage space. The construction proposed for the building is of a semi-steel frame type with steel beams supported on steel stanchions or walls as necessary, reinforced concrete floor and roof slabs, concrete staircases with external brick walls, and light internal partition walls of brick or terracotta which can readily be altered to meet future requirements. The construction of the north and south wings is to be made sufficiently strong to carry a future floor. The windows are to be in a standard section steel frames.

The elevations have been simply expressed in buff-coloured brickwork with a small amount of cement dressing and coloured decoration in the form of tiled piers, &c. It is suggested that the main concourse and the corridors on each side should be covered with Terrazzo. In the other rooms on the ground and first floor, it is proposed that the floors be wood blocked. For the cafeteria it is proposed to have a concrete floor covered with a finished rubber.

## ESTIMATED COST.

7. The estimated cost of the proposal as submitted to the Committee was given as—

	£
Building .. .. .	42,526
Electric light and power .. .. .	1,500
Clock and fire-alarms .. .. .	500
Hot water service and heating of part of the building ..	3,000
Blinds and curtains .. .. .	200
Floor coverings .. .. .	700
Concrete pavements .. .. .	300
Extra for foundations .. .. .	2,000
Outside stairs and sundries .. .. .	300
	<hr/>
Making a total of .. .. .	51,026

And the time set down for completion, about eighteen months from date of commencement.

## COMMITTEE'S INVESTIGATIONS.

8. The Committee inspected the Kingsford Smith aerodrome at Mascot and visited the civil aerodrome at Essendon and the Defence aerodromes at Point Cook and Laverton. A careful scrutiny was made of the plans submitted, and evidence was taken from officials of the Civil Aviation Branch, and of the Department of the Interior, representatives of commercial aviation companies and others.

9. Before the Eighth Committee had time to complete its investigations the House of Representatives was dissolved on the 21st September, 1937, and the Committee ceased to have legal existence. On the 2nd December, 1937, the Ninth Committee was appointed and a fresh reference on the subject was made to that Committee on the 7th December, 1937.

## POPULARITY OF AVIATION.

10. It was stated in evidence that the popularity of aviation has grown considerably in recent years, and that steps are being taken in all important centres in the world to provide facilities for the convenience of the increased number of passengers carried, and for the greater amount of freight handled. Australia, with its wide open spaces and almost perfect flying atmosphere, will probably witness a greater proportionate increase in the development of flying than other less favoured countries, and it will become necessary, from time to time, to make provision to meet that progressive development.



11. In 1923 there were in Australia 37 aircraft on the official register. At the present time there are at the Kingsford Smith aerodrome at Mascot alone 72 aircraft regularly operating or housed there. The following airline companies are at present using the Airport:— Australian National Airways Proprietary Limited, Adastral Airways Limited, Airlines of Australia Limited, Southern Airlines and Freighters Limited, and Guinea Airways Limited. In addition there are four separate organizations conducting flying training at Mascot. There is therefore a total of about 500 passengers a week to be catered for including short-flight passengers, and there appears to be every prospect of these figures increasing rapidly. It was stated in evidence that the average rate of increase within the last two or three years has been 50 per cent. and that there is every likelihood of the 1937 figures showing a 100 per cent. increase over those of 1936.

#### SUITABILITY OF MASCOT.

12. In view of statements that had been made that the Kingsford Smith aerodrome was unsuitable as a landing ground in wet weather, the Committee visited the aerodrome after a series of wet days and walked over a considerable portion of it. The soil is mostly of a sandy nature and although there was some surface water in places the Committee found no indications of boggy soil. It must be realized that with a large area of relatively flat land the existence of some surface water after heavy rain is inevitable for at least a short period. The importance of the question of drainage is, however, appreciated by the responsible officials, and the Committee is satisfied that necessary action is being taken to deal satisfactorily with that problem. Adequate runways either have been or are being constructed and when that portion of the programme shall have been completed no difficulty need be anticipated in the heaviest aircraft being able to take off or land in all weathers.

13. Although only 170 acres have yet been developed, the Commonwealth has at Mascot an area of 267 acres and the position of this area within 6 miles of Sydney is of immense advantage from the point of view of commercial aviation. It is admitted that Mascot has some disadvantages but the Committee was informed that an extensive search had failed to discover any equally suitable area within a reasonable distance of Sydney, and all the experts were unanimously of the opinion that with the steady development of the area on the plans laid down, Mascot can be made an airport adequate and suitable for the requirements of the city of Sydney for many years to come.

14. The Committee made inquiries as to the suitability of the ground as a site for a building of the nature proposed, and was informed in evidence that from an architectural standpoint the site is satisfactory. The surface soil is good and investigation made showed that compact sand exists for a depth of approximately 3 feet, succeeded by a shelly material. It was stated by the architect that there is good bearing capacity over the whole of the site chosen, and in his opinion there would be no danger or disadvantage in sinking foundations to carry a two or three-storey building. From appearances and tests made it is calculated that the ground should be able to carry a weight of from 1 to 1½ tons to the square foot; it is intended, however, to carry continuous reinforcement through the foundations and so ensure the perfect safety of the structure. An engineer examined confirmed the statement that there is no risk whatever in constructing the building on the area chosen. In view of the evidence received, the Committee is satisfied that the site selected may be considered quite suitable for the building proposed.

#### FRESH PLANS.

15. At an early stage in its investigation the Committee was informed that the space allotted for the use of private aviation companies was inadequate, and that the accommodation to be provided for the Customs authorities was inconveniently situated. It was known that the preparation of the reference to the Committee had been somewhat hurried, and when it was realized that the time at the disposal of the Committee would make it impossible for a report to be submitted prior to the dissolution of the Fourteenth Parliament, and that a fresh reference on this subject would have to be made by the new Parliament, it was thought advisable to inform the Government of the criticisms which had been made in respect of the plan submitted. A communication accordingly was addressed to the Department of the Interior drawing attention to the criticisms made, and to other suggestions that had been offered to the Committee, during the course of its investigations, and asking that arrangements be entered into for the designer of the building and a representative of the Civil Aviation Branch to confer with the Collector of Customs, Sydney, and representatives of the Air-line companies likely to be using the Terminal Building, with a view to meeting, as far as practicable, their desires in the matter of the area and location of the accommodation to be set apart for their respective purposes. Following such action it was desired that a revised sketch plan of the building be submitted to the Committee embodying such alterations as the conference and further consideration of the suggestions abovementioned might show to be necessary.



16. On the 2nd December, 1937, the Committee received from the Department of the Interior a fresh plan showing revised arrangement of space suggested for freight and Customs.

17. As all the evidence obtained supports the departmental view that the facilities that would be afforded by the proposed building are essential in a first-class aerodrome, the Committee has no hesitation in recommending that a Terminal Building be erected at Mascot.

18. Further inquiries having satisfied the Committee that with the modifications made in the plan, the wishes of the Customs Authorities and of the commercial aviation companies will be met, the Committee recommends that the plan of the Terminal Building as so modified be adopted.

#### CENTRAL HEATING.

19. Included in the estimated cost of the proposal is an item "Hot water service and heating of part of the building—£3,000."

It was explained that this expenditure is intended to cover the provision of hot water to the kitchen and to the wash basins in the lavatories, and to provide a system of central heating to the Concourse and the Control Tower. This necessitates the construction and water-proofing of a basement 10 feet deep in soil which is carrying water at approximately 3 feet. The cost of this basement alone is estimated at £1,110.

20. In view of the fact that the mean winter temperature of Sydney is 54.3 degrees Fahrenheit, and that there is seldom a wait of longer than fifteen to twenty minutes between the arrival and departure of a plane, the Committee doubted whether a heavy expenditure on central heating was warranted, and with this view most witnesses agreed. The Committee therefore recommends that the basement be not constructed, and considers there is no necessity for the central heating of the concourse as suggested.

21. In respect of the Control Tower it is possible to obtain a small inexpensive air-conditioning unit which would effectively regulate the temperature in that office.

#### REVENUE.

22. During the course of its inquiries, the Committee endeavoured to ascertain what revenue the Commonwealth is likely to obtain from its expenditure at the Kingsford Smith aerodrome.

It is realized that this building is being erected primarily to provide facilities and not to earn revenue; at the same time it is anticipated that some revenue in the way of rental for office accommodation and for catering rights at the cafe will be received, but no details were available.

23. Representatives of the air-line companies examined stated that private companies are aiming at becoming independent and claim that with increased traffic they will have no need of Government assistance. Furthermore, it was their conviction that eventually the Government would need to obtain for its expenditure, some return in the form of aerodrome dues, landing charges and the like.

24. With the increased use of the airport by sightseers it may become the practice to charge an admission fee to the building as is the custom in charging for admission to railway station platforms. At present no charge is imposed for landing planes although it is a common practice in other countries to make such a charge. The Committee was informed that in England these landing fees vary from 2s. 6d. to 15s. according to the size of the aircraft. The Commonwealth has refrained from imposing landing charges in order to encourage flying, although it is understood it has the power to do so.

#### ACCESS TO MASCOT.

25. One of the greatest advantages of an airport at Mascot is its proximity to the centre of Sydney. This, however, is to some extent discounted by the fact that the present main approach is along Botany-road which carries heavy traffic. It has been suggested that an alternative approach might be provided—possibly by way of Old Botany-road. The Committee agrees that everything possible should be done to cater for the speedy transport of passengers and freight to and from the airport as it develops, and suggests that negotiations be entered into with the appropriate authorities, in an endeavour to provide for better road access to the Kingsford Smith aerodrome.

#### FLYING TRAINING.

26. During its visit to Mascot the Committee noticed a number of planes using the aerodrome for training, and ascertained that at the present time the Kingsford Smith aerodrome may be used by everybody in Sydney who needs to use aircraft. Those who are learning to fly make their first flight from this aerodrome, and it can be readily understood that when engaged on his first solo flight a pupil has all he can do to manage his own plane without having to look out for other aircraft in the air.



On the other hand an air-liner carrying fourteen or sixteen passengers may be coming to land at the same time, and its pilot's attention should not be distracted by having to guard against a possible mistake by an inexperienced amateur.

27. It was stated in evidence that the area around Mascot is reaching flying saturation point, and that eventually all activities except those connected with the air mail must go off the aerodrome. It was claimed that if this is done, the Kingsford Smith aerodrome will be quite suitable for Sydney for many years to come.

28. At the moment the discontinuance of training at the Kingsford Smith aerodrome may not be necessary in the interests of commercial aviation, but future developments may necessitate the curtailment or even the cessation of training there in the interests of trainees as well as of commercial pilots and others: With one aerodrome in use for both commercial aviation and the training of pilots it is recommended that trainees be prohibited from flying when air liners are arriving at or departing from the aerodrome.

#### COMMEMORATIVE TABLET.

29. The adoption of the title Kingsford Smith Aerodrome as a compliment to the late Air-Commodore Sir Charles Edward Kingsford Smith, Kt., M.C., A.F.C., is welcomed as a graceful tribute to the memory of an eminent Australian. The Committee, however, failed to find any indication at Mascot that this title has been generally adopted.

It is recommended that a bronze tablet or plaque be placed in some appropriate position in the Concourse commemorating the exploits of this intrepid aviator.

#### SUMMARY OF RECOMMENDATIONS.

30. Briefly summarized, the recommendations of the Committee are:—

- (1) That a Terminal Building at Mascot is essential to cater for the comfort and convenience of passengers, and for the control of aircraft using the airport. (Paragraph 17.)
- (2) That the design submitted for the proposed building, subject to certain minor modifications suggested by the Committee, is satisfactory. (Paragraph 18.)
- (3) That the proposed basement be not constructed. (Paragraph 20.)
- (4) That no necessity exists for the central heating of the Concourse. (Paragraph 20.)
- (5) That the regulation of the temperature in the Control Tower be effected by a small air-conditioning unit. (Paragraph 21.)
- (6) That negotiations be entered into with the appropriate authorities in an endeavour to provide for better road access to the Mascot aerodrome. (Paragraph 25.)
- (7) That in the interests of the safety of trainees and of commercial aviation, training flying at Mascot be prohibited when air-liners are arriving at or departing from the aerodrome. (Paragraph 28.)
- (8) That a bronze tablet or plaque be placed in an appropriate position in the Concourse to commemorate the exploits of Air-Commodore Sir Charles Edward Kingsford Smith, Kt., M.C., A.F.C. (Paragraph 29.)

#### SAVINGS EFFECTED BY THE COMMITTEE.

30. By the adoption of the Committee's recommendations it is estimated that a saving will be effected on the proposed work of approximately £3,000.

JOS. FRANCIS,  
Chairman.

Office of the Parliamentary Standing Committee on Public Works,  
Parliament House,  
Canberra, 22nd April, 1938.