COPY

NEW ZEALAND PACIFIC AVIATION SURVEY EXPEDITION.

General Report on Activities and Results.

Preliminary events prior to departure of Expedition.

Although it had long been realised in New Zealand that ultimately an expedition would be required to investigate many islands in the British Pacific with a view to determining their value from an aviation viewpoint, any enthusiasm towards proceeding with this important work was confined to a few officials and nothing of much importance occurred until the dispatch of an aerodrome engineer from New Zealand in H.M.S. "Achilles" was authorized early in 1937. This officer was required to carry out a comprehensive inspection of as many islands as possible and furnish preliminary advance reports of his impressions of their general value for aviation purposes. This advance information has since proved to be in general very accurate and a most valuable aid to the work now in hand.

2. On the return of this officer to New Zealand steps were taken to allocate, tentatively, certain staff and prepare, in advance, organiza-

tion

tion and equipment against the time when this work would have to be undertaken in the hope and anticipation that His Majesty's Government in the United Kingdom would entrust New Zealand with the work. Unfortunately when the recent decision to proceed with this work was arrived at the preparations had not reached the stage where expenditure had been authorized by New Zealand for the purchase, for example, of such an important item of equipment as a survey and depot ship. However expenditure for "Pacific Island Surveys" had been authorized by Parliament in the Supplementary Estimates of 1938 under the vote item "Maintenance of Aerodromes and Services."

3. When a decision by the Home Government was made that portion of these further investigations were to be proceeded with as an emergency measure, the time available did not permit of a completely manned and equipped expedition being organized and in consequence the results achieved are not as complete as would otherwise have been the case. However sufficient information has been obtained in those islands visited to enable a decision as to their value to be arrived at, as well as some measure to be gauged of the task to fit those selected as suitable.

4. Description of Expedition's Itinerary.

The expedition was composed of the following personnel:-

tion and equipment against the time when this work would have to be undertaken in the hope and anticipation that His Majesty's Government in the United Kingdom would entrust New Zealand with the work. Unfortunately when the recent decision to proceed with this work was arrived at the preparations had not reached the stage where expenditure had been authorized by New Zealand for the purchase, for example, of such an important item of equipment as a survey and depot ship. However expenditure for "Pacific Island Surveys" had been authorized by Parliament in the Supplementary Estimates of 1938 under the vote item "Maintenance of Aerodromes and Services."

3. When a decision by the Home Government was made that portion of these further investigations were to be proceeded with as an emergency measure, the time available did not permit of a completely manned and equipped expedition being organized and in consequence the results achieved are not as complete as would otherwise have been the case. However sufficient information has been obtained in those islands visited to enable a decision as to their value to be arrived at, as well as some measure to be gauged of the task to fit those selected as suitable.

4. Description of Expedition's Itinerary.

The expedition was composed of the following personnel:-

personnel:-

Squadron-Leader E.A. Gibson, Officer in Command (New Zealand).

Mr. J.A. Henderson, Surveyor, Second in Command (New Zealand).

Mr. E.W. Lee, Aerodrome Engineer, Third in Command (New Zealand).

Mr. R.A. Wimbush, Imperial Airways, on loan to Air Ministry, United Kingdom, Echo-sounding Expert.

Mr. R.B. Roberts, Engineering Assistant (Fiji).

Mr. C. Harlen, Surveyor (Fiji).

Mr. B.J. Patten, Draughtsman (New Zealand).

Mr. T.W. Hoult, Chainman and Instrument Man (New Zealand).

Mr. B.C. Carr, Launch Coxswain and Survey Assistant (New Zealand).

Lieutenant J.A. Ritchie, R.N.R. (Retd.), Commissariat and Stores (New Zealand).

Acting Petty Officer M.H. Hay, Telegraphist (New Zealand Division of Royal Navy).

One Fijian Chainman-Headman and three Fijian general labourers.

5. The New Zealand Party embarked at Auckland in H.M.S. "Leander" on November 5th, 1938, and was joined in Suva on 17th November by the leader of the expedition, a Naval wireless operator an official from the British Air Ministry on loan from Imperial Airways, two Fiji officers, and four native boys, making a total expedition personnel of 15.

6. Owing to the impossibility of delaying H.M.S. "Leander" indefinitely at some of the islands to be visited portion of the expedition

was

was disembarked and sent forward by the chartered vessel T.M.V. "Yanawai" sailing from Suva on the 24th November. The remaining members of the party sailed from Suva for Christmas Island via Hull Island on the 17th November in H.M.S. "Leander."

7. Hull Island was reached on the 21st November eastern time, where one Surveyor and one Fijian boy were disembarked and opportunity was afforded during the eight hours stay for a brief inspection to be made, the "Leander" sailing for Christmas Island the same day.

8. Christmas Island was reached on the 24th November eastern time, where the leader of the expedition, the Air Ministry official, one Fiji Engineer, and three native Fijian boys were disembarked. During the "Leander's" three day stay opportunity was taken of using naval personnel to assist with landing of stores and other preliminary work, the "Leander" sailing for Suva via Fanning and Gardner Islands at 5 p.m. on the 26th November. Meanwhile the "Yanawai" having sailed from Suva on the 24th November arrived at Gardner Island in the Phoenix Group on the 30th November at 6 a.m., where the "Leander" was contacted on the 1st December and use made of the Naval personnel for landing six European officers and men with their stores and equipment.

9. Mr. J.A. Henderson owing to the re-

currence

currence of an ailment following on an accident in the surf at Raoul Island reported sick and was evacuated by the "Leander" to Suva and thence to New Zealand by the "Aorangi." Mr. Lee from this date took over as Second in Charge of the expedition and assumed command of the Gardner and Hull parties.

10. The "Leander" sailed the same day for Suva, the "Yanawai" leaving for Hull Island on the 6th December at 11.50 a.m. Arriving at Hull Island at 11 a.m. on the 7th December, the "Yanawai", after discharging equipment and explosives, sailed for Christmas Island on the 8th December at 5 p.m., where she arrived on the 16th December at 8 p.m. After arrival the equipment and crew of the "Yanawai" were pressed into service until the 25th December when the work being sufficiently far advanced two officers and two Fijian boys were embarked and the expedition left for Fanning Island at 5 p.m. One European officer and one Fijian boy and two Fijian members of the crew were left behind to complete the investigations. An event having a bearing on the departure of the ship prior to the completion of the work was the necessity of obtaining surgical aid for the wife of a Christmas Island labourer, a Tahitian woman, suffering from acute sepsis. This woman was rushed to Fanning Island and after a minor amputation eventually

made

made a complete recovery.

11. Fanning Island was reached on the 26th December where the expedition was engaged on investigations until the 4th January when the "Yanawai" sailed for Christmas Island at 1 p.m. During the stay at Fanning Island one of the Fijian crew developed influenza in an acute form, this afterwards leading to complications to which he eventually succumbed, and which also affected the expedition's itinerary.

12. While at sea on the night of the 4th-5th January orders were received from New Zealand to proceed to Washington Island, which was reached at 5.30 p.m. on the 5th January.

13. From the 5th to the 8th January work proceeded at Washington Island, the expedition sailing from this island for Fanning Island at 5 p.m. on the 8th January to obtain medical attention for the Fijian patient whose condition was now causing serious alarm. On arrival at Fanning Island on the 9th January the case was diagnosed as pneumonic influenza, the patient landed into isolation hospital, and the ship placed in quarantine until the 22nd January. The quarantine period having expired the ship was passed by the doctor and sailed for Christmas Island at 3 p.m.

14. Christmas Island was reached at 5 a.m. on the 24th January where the party left behind was embarked and the ship departed for Gardner

Island

Island at 8 p.m. the same day, arriving at the latter place at 6 a.m. on the 30th January.

15. The remaining work at Gardner Island was completed as soon as possible and the expedition sailed for Hull Island at 12 noon on the 5th February (E.S.T.). At Gardner Island an anchorage of sorts was found about one mile south of the wreckof the "City of Norwich." This was used throughout the stay and a buoy marking the spot left for any visitor to the island in the near future.

16. Hull Island was reached at 4.30 p.m. on the 6th February where a similar procedure regarding the completion of work to what had been followed at Gardner Island was adopted. All expedition equipment and personnel was embarked including the party originally left by H.M.S. "Leander," the ship departing for Nukunono on the 12th February at 3 p.m. and arriving there at 6.30 a.m. on the 14th February. Only 34 hours were spent at Nukunono, the ship sailing for Apia at 4.30 p.m. on the 15th February and coming to anchor in Apia Harbour at 9 a.m. on the 17th. All day was spent in connection with surveys in hand by a New Zealand party in Samoa, the expedition sailing for Suva at 5 p.m. Suva was reached at 2 a.m. on the 23rd February.

17. Impressions of Results of Investigations.

(a) From a perusal of all correspondence available leading up to the dispatch of the present expedition it would appear doubtful if anyone connected with the authorising of investigations visualised clearly the technical and geographical factors having a bearing on the ultimate adoption of any particular route, and, therefore, the routes which, from the technical viewpoint, are most likely to be adopted and to require close investigation. There would also appear to have been a certain measure of confusion between military, commercial and political objective which, if continued, is not likely to produce the most desirable results technically in any one of those directions. This observation is made with all due deference to the many eminent and senior officers who have no doubt given time and thought to the matter, and is made merely to draw attention to the fact that in the adoption of any route across such a vast expanse as the Pacific Ocean, where different objectives may exist at either extremity and where several routes or combination of routes may exist between the extremities chosen or considered as probable likely terminal points, it is important from the economic point of view that during initial investigations commercial considerations should

be

be clearly visualised apart from political and military ones.

(b) Accepting as axiomatic the statement that within the limits of present technical knowledge no trans-Pacific air service can be contemplated in the near future that does not use Hawaii as a "stepping stone" it next becomes obvious that no matter what route is followed towards Australia and New Zealand the next inescapable "stepping stone" is some island in the Line Group. Of these islands the United States of America has tried Kingman Reef and as the advantages of this place, notwithstanding its ideal geographical situation, are evidently not what was anticipated, is now turning attention to Palmyra Island. The three British islands are situated geographically in relation to any air route to the South Pacific in order of value Washington, Fanning, Christmas; but unfortunately their value technically is in the reverse order. Washington is of little use for either land or marine aircraft, Fanning is suitable as an alighting area for flying-boats only and is not suitable for land planes either in so far as the type of aerodrome that can be constructed to suit local winds or in cost of producing such emergency landing field.

18. Christmas Island while having large areas of water has in general a shallow and badly

obstructed

obstructed lagoon which, nevertheless, does give every indication of providing a suitable sea aerodrome at not unreasonable expense. Many alternatives for a cheaply constructed land aerodrome are available while the natural port facilities, climate, natural resources and size of the island put it far ahead of any other island in the Group. It is therefore stressed that in the Line Group Christmas Island is, from the aviation viewpoint, the key island and every precaution should be taken to preserve its sovereignty.

While both lagoon areas at Fanning and Christmas Islands have been marked out and buoyed no survey flight can be undertaken without a competent aviation officer being stationed there and certain further work carried out prior to such a flight.

(c) Coming south from the Line Group the geographical importance of the various islands is not so clearly defined and depends on the terminal objectives aimed at. If New Zealand is the chosen terminal then technically the islands for investigation in order of geographical importance are as follows: (1) Danger Island and Nukualofa, (2) Suwarrow and Nukualofa, with (3) Nukunono and Samoa as alternative alighting areas.

If Sydney is the chosen terminal then the most important islands are Nukunono and Viti Levu, with the Phoenix Group as an alternative.

If

If Brisbane or some place further north is chosen then the Phoenix Group becomes of paramount importance.

(d) From present investigations it is clear that Hull Island in the Phoenix Group has the most suitable lagoon for seaplanes while Gardner can only be regarded as an emergency alighting area. For land aerodromes, while Hull is better than Gardner and parts of both are worth reserving for such a purpose, neither is really good. So far as the Phoenix Group is concerned Hull is the most important and really only satisfactory island, and is a most valuable potential base. Gardner Island is only a poor alternative to Hull Island and while valuable for aviation purposes all efforts should be concentrated on securing the sovereignty and use of Hull Island for British aviation.

(e) Nukunono has a most suitable lagoon which could be made available for use immediately. Unfortunately sea transport landing facilities are very poor and no suitable area for a land aerodrome exists.

(f) The island of Upolu,west of Apia, possesses a suitable lagoon while a land aerodrome site is at present under survey.

19. Conclusion.

I. It is recommended that a further completely equipped expedition be organized and despatched from New Zealand to complete these

important

important investigations as soon as possible and that such expedition should be equipped to prepare Christmas, Fanning, Hull, Nukunono, Apia, and Suva for survey flights by flying boats.

II. It is further recommended that certain equipment given in the attached list should be supplied to the Acting Administrative Officer in Christmas Island as soon as possible so that he will be equipped and in a position to meet the demands likely to be made on him at very short notice in the near future.

(Signed) E.A. Gibson,

Squadron-Leader,
Royal New Zealand Air Force.

Suva,

28th February, 1939.

COPY

CHRISTMAS ISLAND.

---

1 decked-in power launch, with necessary spares.

1 ½ ton "Utility" Truck, with necessary spares.

Portable emergency radio equipment, C.W. and Telephony.

1 dinghy, 8 feet, with oars and rowlocks.

Aldis signalling lamps (2).

1 telephone transmitter and good receiver.

Small hand crab winch, wire rope, 1 double and 1 single block.

Tools such as axes, crowbars, mattocks, shovels (long handled), picks, and crosscut saw. Spades, post hole augur, medium size, (with extension pipe).

1 kit of carpenter's tools.

1 small "lock up" shed.

1 garage to suit truck.

Quantity of timber to be used for building small explosive magazine with door and lock.
