

C.S.

MISCELLANEOUS.

TRN/AVI/1 # 4

19 39.

No. 88/39.

H. E. the Governor.

SUBJECT.

19 39.

6th June.

Previous Paper.

SEAPLANE SERVICE - Establishment of.

MINUTES.

Subsequent Paper.

88/39

C.S.O. No. ~~61/38~~

1.

Sheet No. ~~2~~

Inside Minute Paper.

P. 11
1/9/38 ① ②

Letter to Manager, F.C. of 3/1/38

Th. Submitted. No indication of cost is given, but Mr Young himself will be here next mail and will perhaps give some idea of the cost.

W.H.
C.I.
4. XI. 38

②
B.F. 24.11.38
9.11.38

~~Letter to Manager, F.I.C., of 8.11.38.~~ 7/21/38

③ ⑩ Letter to Hon. L.W.H. Young of 25/11/38.

pa
25.11.38

4-7. ~~#~~ Letter from Hon. L.W.H. Young of 26.11.38.

Th. Submitted. From the information furnished by Mr Young, the capital outlay would be heavy. Cost of maintenance and running would be high.

It is doubtful whether the
need would justify the
expenditure.

M.H.

29. XI. 38

In the first place please
thank Mr. Young warmly for the
trouble he has taken in this
matter and inform him also
that I concur generally in his
views as to the value of a flying
boat would have for the Colony
and that I consider that the service
should form part of a development
programme. Ways and means of meeting the cost of
establishing such a service will be
considered though it is unlikely that
it would be possible to finance it at an
early date.

Then ask Treasury to go into
the costs (capital & recurrent) on the
basis of 2 pilots ^{at £600} and 1 ground engineer
being sufficient staff imported plus 1 mechanic
or 1 wireless operator local

M.H. 5/12/38

Letter to Hon. W.W.H. Young, M.E.C., of 6.12.38.



Copy of Minute from Hon. Col. Treasurer of 19/1/39
the original of which is recorded on the back of
Sheet 5 in M.P. 91/38.

Hon. C. S.

(1) With reference to your Minute dated 7/12/38.

The following figures have been prepared in respect of the
aircraft numbered 3, 4 & 5 on red 6 .

Aircraft	<u>No. 3.</u>	<u>No. 4.</u>	<u>No. 5.</u>
Initial Cost	£6000	£4000	£6000
Freight, Insurance, Crating etc (1)	600	400	600
	<u>£6600</u>	<u>£4400</u>	<u>£6600</u>
<u>Recurrent Expenditure.</u>			
Salaries - Pilots	£1200	£1200	£1200
Engineer	500	500	500
Mechanic Grade III (2)	150	150	150
W/T. Operator Grade IV (3)	100	100	100
Total P.E's.	£1950	£1950	£1950
<u>OTHER CHARGES.</u>			
Annual passage charges	£142	£142	£142
Petrol & Oil (4)	£1050	£700	£1050
Insurance (5)	£1200	£800	£1200
Maintenance, spare parts &c. (6)	<u>£300</u>	<u>£300</u>	<u>£300</u>
Total O.C's.	£2692	£1842	£2692
Total Recurrent Expenditure	<u>£4642</u>	<u>£3792</u>	<u>£4642</u>

Note :- (1) based on %age of freight, insurance etc of Power Boat.
(2) Increases by £10 annually to £200; (3) increases by £10
annually to £150; (4) on minimum of 300 flying hours per annum
at 3/6 per gallon & 8/- per gallon oil; (5) 20% as suggested
in red 5; (6) calculated at 5% of initial cost.

(2) Perhaps the P.W.D. could estimate the cost of a slipway and
the necessary housing, please.

(3) If the Government intended bearing the liability of accident
etc without recourse to insurance, the annual sum required
for sinking fund charges would be /

be. No 3. £1130; No 4 £754; No 5, £1130, respectively, which over a period of five years @ 3% compound interest p. a would equal the initial cost of the machine.

(4) It is assumed that the insurance percentage suggested by the Hon. Mr. Young in Res 12 covers the machine only. In the absence of literature regarding cover for personal risks, no attempt has been made to include such provision, but there is no doubt that the premium would be considerable.

(5) The computation for passages is based on the employment of single men.

[Signature]
19/1/39.

[Signature]
Submitted. The cost both Capital and recurrent is heavy.

MCH
CS
20. 1. 39.

I am obliged for these figures. They are sure to be useful at a later date.

[Signature] 20/1/39

Hon. S. M. O.

To Sec.

MCH
CS
20. 1. 39

H.C.S.

It will be seen that the scheme is expensive but I think it should be pointed out that the figures submitted for machines by Mr. Young are excessively high or at least the machines quoted too big.

② All this colony needs is a plane big enough to carry 3 passengers and I should think \$1,000. would cover the cost easily.

W.H.
5 MD
23/1/39

N. F. A. at present.

W.H.
ES.
23. 1. 39.

W.H.
5 MD
23/1/39

Extract from letter received from Mr. H.C. Harding of 18.5.39. (20) (9)

Yr. Submitted. This refers to transport mentioned in files sent herewith.

2. Enquiries showed that an air service would be too expensive at present although Yr. considered that such a service should form part of a development plan (sheets 2 and 3).

W.H.
ES.

(20) 5.6.39.

Reas. (D) to (S) Sheet 3 + back of 5 -
now and had better be ~~considered~~ put up in a
new file on Seaplane service -
establishment of and resubmitted
The matter is so important to leave in
a medical file. I propose to take further
action. W.H. 6/6/39

YR

Resubmitted.

WCH

Ch.
7. 6. 59.

Does

Will you please have enclosed typed with a view to publication in the Church Magazine

~~TTTTT~~ 9/6/39

YR

Submitted as typed before being sent for publication.

WCH

Ch.
10. 6. 59.

In order.

This shd be followed up by a dispatch to the SPP referring to the difficulties of communication and asking whether estimates can be prepared of the cost of a service to carry 6 to 10 persons exclusive of personnel if necessary with a second hand machine
A copy of the published notes will be also

~~TTTTT~~ 12/1/39

JH. The A.C.S. handed me this paper and stated it had been inadvertently put away with another file.

No action at present!

MCH
cl.
16. XII. 59.

- Please publish as amended

~~18/12~~ 18/12

Original article published in June 1959 Church paper.

JH. The original article was published last June.

MCH
cl.
18. XII. 59.

No further action

~~18/12~~ 18/12

P.A.

H. C. S.

Mr. Ballantyne has at my request produced very detailed information concerning the cost etc. of running a sea plane service here. The full notes are ^{put up} ~~in attached book~~. I wish two copies to be typed by Monday next.

The figures are for ~~at~~ the de Havilland Dragon Rapide plane no. 5 in Mr. Jones's report (7) but will be very useful for whatever manufacture of plane is eventually bought. I feel sure that the figures are as reliable as any can be on information at present available. No allowance is made however for passenger for pilot and mechanic. The average annual charge for these is £142 as given by Mr. Jones. Mr. Ballantyne informs me that the mechanic will be available for technical work with any of our motors as he would have half his time with ^{£150} of work a year which will be put for him in the P.W.D.

18/1/40

Y/E,

Two copies herewith.

C. D. H.
19/1/40.

Returns 7 file

~~19/1/40~~ 19/1/40

P.A. 6/1/41

The Falkland Islands Company, Limited.

(INCORPORATED BY ROYAL CHARTER 1851.)

REGISTERED 1902.

Stanley.

AGENT FOR LLOYDS.

AGENTS FOR
THE PACIFIC STEAM NAVIGATION COMPANY.

TELEGRAMS "FLEETWING PORTSTANLEY" VIA RADIO.

3rd November, 1938.

Sir,

With reference to your request for information regarding seaplanes, our Managing Director writes, stating that present conditions prevent one from getting very far in the matter at the moment. He has however interviewed Short Brothers who, in normal times, manufacture a 7 seater seaplane, 2 engines, cruising speed about 120 miles per hour, fuel consumption about 12 gallons per hour. Also, a larger seaplane of the same type, 10 seater, 4 engines, similar speed, fuel 18 gallons per hour. Mr. Young further states "It would probably be necessary to provide a slipway in Stanley and rubber mooring buoys at likely landing points. My impression is that there would be no insuperable expense or difficulty in running a seaplane service round the Islands. I do not think it could be expected to pay it's way but the yearly charge should not be excessive when one considers the benefits it would confer."

I am,

Sir,

your obedient servant,

David Peck

Manager.

The Honourable

The Colonial Secretary,

Stanley.

91/38.

8th November, 38,

Sir,

I am directed by the Governor to acknowledge and to thank you for your letter of the 3rd of November, 1938, and for the information therein contained regarding seaplanes.

Red 8.

I am,

Sir,

Your obedient servant,

West

Colonial Secretary.

The Manager,
The Falkland Islands Cop, Ltd.,
STANLEY.

91/38.

25th November, 38.

Sir,

With reference to the information you kindly obtained while in England from Messrs: Short Brothers, seaplane manufacturers, I am to enquire whether you can give any indication of the cost of seaplanes that might be considered suitable for service in this Colony.

I am,

Sir,

Your obedient servant,

M.H.

Colonial Secretary.

The Honourable
L. W. H. Young, M.E.C., J.P.,
STANLEY.

(1) (74)

The Falkland Islands Company, Limited.

(INCORPORATED BY ROYAL CHARTER 1851.)

REGISTERED 1902.

AGENTS FOR LLOYDS.

TELEGRAMS "FLEETWING PORTSTANLEY" RADIO.

Stanley.

26th November, 1938.

Sir,

Radio

With reference to your letter Ref: 91/38 dated 25th instant regarding the possibilities of using seaplanes in the Colony, I have discussed the matter with a firm of Insurance Brokers who are interested in aviation insurance, with a member of the Civil Aviation Committee and with Messrs. Short Brothers and obtained a certain amount of information but the political situation prevented my going as fully into the matter as I had hoped, before I sailed.

In the first place the firms who manufacture the type of craft required are full up with Government business and it is doubtful whether they could accept outside orders with any reasonable guarantee of early delivery.

I was of opinion that a seaplane would be preferable to a land plane but after discussion it appears that a flying boat would be preferable to either from the point of view of handling and embarking and disembarking passengers and particularly stretcher cases.

Messrs. Short Brothers make (amongst other types) -

1. Short Calcutta flying boat.

Engines: 3. Pegasus II.

Consumption 45 gallons per hour.

12 passengers.

Pay load 2,500 lbs.

Cruising speed about 100 m.p.h.

THE HONOURABLE

THE COLONIAL SECRETARY,

STANLEY.

2. Short Kent flying boat.

Engines 4. Bristol Pegasus II.

Consumption 60 gallons per hour.

18 passengers.

Pay load 4,000 lbs.

Cruising speed about 100 m.p.h.

3. ^{Scout} Short sea plane.

Engines 4. 90 H.P. Pobjoy.

Consumption 18 gallons per hour.

10 passengers

Cruising speed about 120 m.p.h.

Cost about £6,000.

This type is used by Imperial Airways for their Irrawaddy service.

4. ^{Scout} Short sea plane.

Engines 2. 90 H.P. Pobjoy.

Consumption 12 gallons per hour.

7 passengers

Cruising speed about 120 m.p.h.

Cost about £3/4,000.

This type is not being produced at present.

5. De Havilland Dragon Rapide seaplane.

Engines 2. 200 H.P. Gipsy six.

Consumption 17.5 gallons per hour.

8 passengers.

Cruising speed about 123 m.p.h.

Cost about \$28,000 (Canadian dollars) f.o.b. Canadian port.
(Crating extra).

Other firms producing craft of the required type are the Super Marine Co. and Messrs. Saunders Roe, Cowes. I had not time to enquire as to the costs of 1 and 2.

It was suggested to me that it might be possible for Government to obtain a second hand Short Singapore boat from the Air Ministry. This is the service replica of the Short Calcutta (see above).

It also occurs to me that Fleet Air Arm reserves might be employed if the Admiralty could be interested. It is even

possible they might see their way to collaborate in some ⁵ practical fashion if the craft employed formed part of the defence scheme for the Colony. (11)

PERSONNEL. Pilots. I understand that salaries are fairly high and for purposes of estimating it might be desirable to adopt the figure of £1,200 per annum.

GROUND ENGINEER. Allow £500.

WIRELESS. If considered necessary a locally trained man should be capable of carrying out the limited requirements here.

INSURANCE RATES. Are dependent to a certain extent on whether a new or second hand machine is employed and the stock of spares carried as part of the outfit. For purpose of estimate allow 20% per annum.

PASSENGERS AND FREIGHT. Copies of the necessary forms etc. can easily be obtained. It would probably be necessary to enact an ordinance regarding liability etc.

MOORINGS ETC. A covered slipway would be required at Port Stanley. It is suggested that Farmers who require their stations regarded as a point of call be expected to provide and lay a mooring buoy (type to be specified by party operating the service) and row boats, at their expense.

I regret that I have not been able to obtain more detailed information for Government but I shall be pleased to continue my enquiries when I return to England if Government wish it.

The increase in flying services which are being maintained throughout the year in all weathers inclines me to the view that there are no insuperable difficulties in running an inter-island service. An air ambulance service is in operation in Scotland. An inter-island service would operate at a considerable loss but it would certainly solve several of the local transport problems and though it may not be a practicable proposition at the moment I am definitely of the opinion that there is every probability a service will be provided within a few years and with the establishment of the British Airways service to the River Plate a demand for an

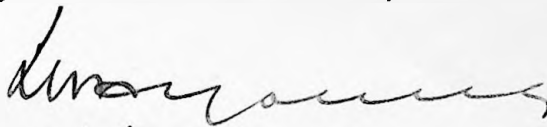
occasional connecting service will surely arise.

(14)

I am,

Sir,

your obedient servant,



Managing Director.

91/38.

6th December,

38.

Sir,

Red 14

I am directed by the Governor to acknowledge the receipt of your letter of the 26th of November, 1938, and to thank you warmly for the trouble you have taken in obtaining particulars of Seaplanes suitable for service here.

2. I am to say that His Excellency concurs generally in your views as to the value a flying boat would have for the Colony and considers that the service should form part of a development programme. Ways and means of meeting the cost of establishing such a service will be considered though it is unlikely that it would be possible to finance it at an early date.

I am,

Sir,

Your obedient servant,

MCH
Colonial Secretary.

The Honourable
L. W. H. Young, M.E.C.,
STANLEY.

11

SEAPLANES FOR THE FALKLANDS.

The Government has investigated the cost of establishing a seaplane service in the Colony. There can be no doubt of the widespread benefits that would result from such an improvement in communications.

The initial cost and maintenance charges would be heavy though negligible in comparison with the cost of construction of metalled roads.

The Government is indebted to the Managing Director of the Falkland Islands Company for estimates of the ~~initial~~ cost of flying boats and seaplanes as obtained from Messrs: Short Brothers, the oldest firm of aeroplane makers in the United Kingdom.

It appears that flying boats would be preferable to saeplanes from the point of view of handling passenger traffic and particularly stretcher cases, but the first cost would be high and the fuel consumption of 45 to 60 gallons an hour would make running very expensive.

The kind of seaplane that would render all the services required would cost from £3000 to £6000. The price of one with four engines of 90 h.p. a fuel consumption of 18 gallons an hour and carrying ten passengers with the speed of 120 miles an hour is quoted at about £6000. A smaller machine with two engines and the same speed but carrying only 7 passengers is quoted at from £3000 to £4000. To these sums would have to be added £600 and £400 respectively for cost insurance and freight and say £1000 for housing and the necessary slipway.

Running/

Running expenses would be £1350 for salaries with an imported pilot and engineer and from £2700 to £2800 respectively (for the larger and smaller machine) for maintenance, including fuel, insurance and repairs. The annual recurrent cost would therefore be at least £3000 to £4000.

As against the cost of maintenance could be set receipts from passenger fares, etc., but as it would be scarcely practicable to charge higher fares than are now made for sea passages it would not be safe to estimate receipts at ~~more than £1000 a year~~ ^{a high figure}. *Commensurate with the ~~cost~~ expenditure*

There seems little prospect of the Government having funds available for a seaplane service for so long as it is necessary to continue relief works in Stanley for the maintenance of the unemployed. Meanwhile, however, the Government is making further investigations into the most suitable type of aircraft and the expenditure entailed.

The above was prepared before the war and the cost will doubtless be much higher after it. There seems therefore little prospect of the Government having sufficient funds to establish a flying service. The people of the Colony have however recently had an opportunity, through the kindness of the Captain of the HMS Exeter, in learning of the great ~~benefit~~ benefit of transport by air ~~also~~ in saving life.

Extract from letter received from Hon. Secretary, West
Falkland Managers Association dated the 18th of May, 1939.

Sir,

.....
(e) As it has been demonstrated by H.M. Ships that
flying is possible in the islands, we think enquiries^{might}/be
made regarding the purchase of an ambulance plane for
this kind of work.
.....

I am,

Sir,

Your obedient servant,

(Sgd.) H. C. Harding.

Two Copies

This document is in the handwriting of Bill Sakantye

V.C.
2015

Analysis of approximate costs for operating one D.H. "DRAGON-RAPIDE" SEAPLANE (2, DH "Gipsy-Six" Engines of 200HP each) in the Fackland Islands.

1. This type of Aircraft should prove very suitable for the duties of a medium-load carrying machine. It is operating in many parts of the world, and has been developed in Canada under hard winter conditions, and is used there for Passenger Traffic, Forestry fire patrol, Seal spotting, Ambulance duties, and Aerial Survey.
2. The structure is effectively protected against salt-water corrosion and requires the minimum of maintenance; also skis may be fitted if necessary for duties further South. By the adoption of simple "in-line" air-cooled engines with simple maintenance and easy accessibility local mechanics may be trained without "aircraft" experience being essential. Furthermore as the "Gipsy" range of engines have a low compression-ratio, the use of expensive or special fuels are unnecessary and spares and replacement parts are readily and cheaply obtained from the mainland Service organization (or in cases of emergency they may be obtained from the Company's Agents in Montevideo, etc).
3. The aircraft has an adequate reserve power and will definitely maintain height on one engine, in the event of one failing, and is therefore very safe.
4. The normal fuel tankage (76 gallons) gives a range of 550 miles but it is considered that this could be reduced to carry more useful load. If we assume, say 50 galts of fuel, for a range of approx. 375 miles (in still air), the weights would be approximately as follows —

Tare weight of machine (seaplane) with cabin bare	3,500 lbs.
Disposable load	<u>2,250</u>
Total All-up weight	5,750 "

<u>Disposable load</u> =	Pilot	170 lbs.
	Petrol (50 galts)	375 "
	Oil (7 galts)	65 "
	<u>PAY LOAD</u>	<u>1,640 "</u>
		2,250 "

The above Pay-load could represent say 7 passengers (7x170 = 1190 lbs) leaving a further 450 lbs. for luggage, equipment, Cabin installation (about 145 lbs), Radio, etc.

Capital and operating costs -

1. The Selling Price of the "DRAGON-RAPIDE" Seaplane, placed C.F. Port Stanley, complete but less Radio equipment would be approx. £6,250. (Any initial adaptation for Aerial Survey Camera or Ambulance would be slightly extra).
2. In order to assess the annual operating costs we will assume that the machine operates 400 flying hours per year, or a total distance of 48,000 miles. Adding on a margin for warming-up, taxiing, and take-off we can assume 450 hours as being the annual working hours of the Engines.

FIXED ANNUAL CHARGES —

PER ANNUM.

Depreciation of aircraft at 20% p.a.

(i.e. spread over 5 years at which period it would be replaced by a more modern machine. This is really an "obsolescence fund", and it should be noted that the aircraft if properly maintained would still have a good second-hand value).

20% of £6,250 = £1,250

Insurance Full cover, including flying and ground risks could be obtained from the British Aviation Insurance Group for approx 9% p.a. (Any minor damage up to about £400 would have to be shouldered by the operator).

approx 140

BUILDINGS - a convenient shed of

approx 50x70 ft. should be erected at Port Stanley (although aircraft would normally be moored on the water) with slipway. Also Buoys or floating Rafts would be required in other Ports.

Initial cost, approx £750

Depreciation at 10% P/A = 75

SPARES It would be advisable to stock

a nucleus of spares for routine overhauls of Engines and Airframe. This would involve a capital outlay of some £400. This charge will however be taken into account under Annual running costs since the absorption is dependant on the Annual Mileage or hours flown.

£1,465

Fixed Annual Charges Contd -Forward

£1,465

PERSONNEL

Pilot - Prior to the War it has usually been found possible, for work of this class, to obtain a good all-round Pilot, of the ex-NCO class for £600/£700 p.a. plus a Bonus on flying time. We can assume therefore a figure of £800 to cover this, plus £50 p.a. for the Pilot's Personal Insurance making a Total of

- £850

Mechanic - The full-time employment of a first-class Mechanic is hardly necessary for one Aircraft, particularly as the estimated annual flying hours are low. Routine maintenance Schedules and daily inspection before flight occupy little time and the Complete Overhaul period of the Engines is 750 hours, or practically 2 years work. (It is possible therefore that his services could be utilised for other local duties and a portion of this charge relieved)

The salary would be approx. - £400

Various - For the services of a local Boy or improver, for washing-down with fresh water, cleaning etc. Also Service of Boatmen at other ports, assume a charge of -

- £150

£1,400

OPERATIONAL CHARGES -

PETROL - For 450 Running hours per year at a cruising consumption of 18 galls. per hour (4 galls. per engine) the total consumption will be 8,100 galls. A good grade commercial fuel will be necessary, with a minimum Octane value of 79. Assuming a certain proportion of Aviation Petrol or Benzol (from Montedison gas works Co) would be imported specially, we could assume a cost of 2/6d. per gallon, or a total charge of

£1,012

£1,012

3,877

(Contd.)

Operational Changes - Cont'd

forward

£3,877

OIL The oil consumption at Cruising Revs., including changing at prescribed periods will be 0.7 galls per hour, or a total of 315 galls. per year. Assuming a Commercial Brand of good Mineral oil at 4/0d. per gallon, this total charge is approx.

£65

65

SPARES - From experience on existing Air lines with aircraft of this type the consumption of Routine replacement parts during overhauls is as follows -

Engine - 2/0d. per engine hour
or a total of $450 \times 2/0d. \times 2$

= £90

Airframe 2/6 d. per hour
or a total of approx

= £60

For the Annual Revision for Certificate of Airworthiness he should assume a further

= £100

250

TOTAL Charges per Annum £4,192

say £4,200

Therefore Operating Cost, including all charges, will be

Per hour, $\frac{£4,200}{450} = £9.3$ (£9-6-0)

Per Mile $\frac{£4,200 \times 20/- \times 12d.}{48,000} = 21d. = \frac{1/9d.}{1}$

Assuming Aircraft is carrying an average load of 5 passengers (instead of 7 or 8), the cost

Per passenger/mile will be = 4-2 d.

or if carrying freight, and assuming a Pay load of 1,600 lbs, (or 0.7 Tons), the cost =

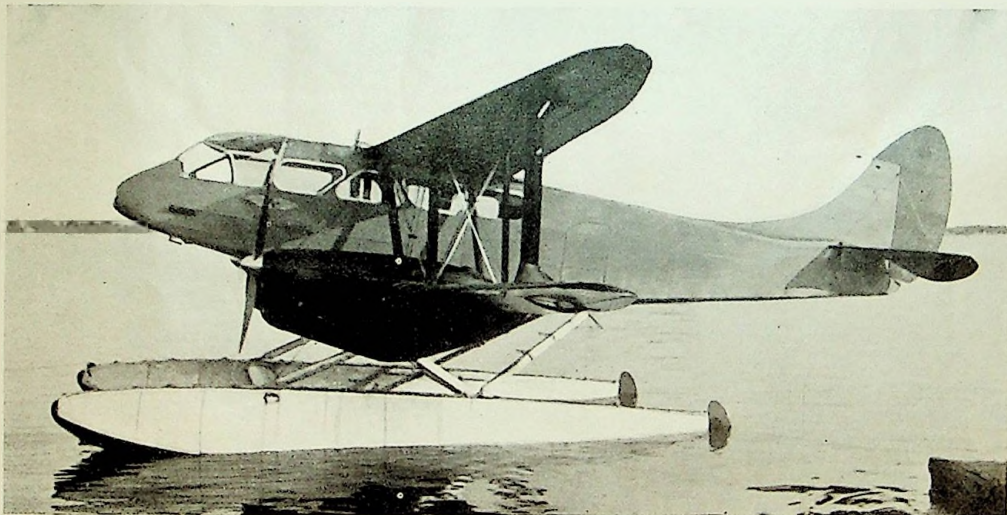
load carried in Ton/miles per hour =

$120 \times 0.7 = 84$ Ton/miles

Cost per Ton/mile = $\frac{9.3 \times 20/-}{84} = 2/2d.$

General —

1. The Total Flying Hours per Annum considered are small. It should be appreciated that as these Aircraft are often operated at 1,000 hours P/a, this would reduce the Cost per Hour - or per Mile - since fixed Charges such as Obsolescence and Insurance are constant.
2. Since the Total operational cost is £9.6 per hour during which time a Cruising distance of 120 miles is covered, if we consider a case whereby a trip to New Island is made, a distance of 140 miles, this will take approx. 1.2 hours and cost £11.2. (£11-4-0)
3. It is understood that the Cost of the passage by Ship is approx. £4 (plus meals and expenses). If therefore passengers were willing to pay ^{only} £3 to do the trip comfortably in one hour, if 4 passengers were carried the costs would be covered, and any additional passengers would result in profit.
4. Other utilities to which the Aircraft could be adapted are Ambulance and Aerial Survey. For the former the chairs may be readily removed and up to 4 stretchers may be adapted, together with seats for a Doctor and Nurse, medicine chest, etc. This duty would probably be of assistance to local Medical officers. Also for Aerial Survey an "Eagle" Automatic camera may be installed, either electrically or mechanically operated (by windmill); this may be used for both Vertical and oblique photography.



The
DRAGON RAPIDE

The Dragon Rapide is a modern vehicle for economical conveyance of 6 to 8 passengers. It is in wide use in public transport work, over 200 being in service throughout the world. The military version of the Rapide is employed by the air forces of several foreign countries. It is built, for use on wheels, floats or skis. It is powered by two Gipsy Six engines of 200 h.p. each.