

C.S.O.

(Formerly)

SUBJECT :

FALKLAND ISLANDS GOVERNMENT AIR SERVICE.

Norseman Aircraft.

NOT TO LEAVE THE OFFICE WITHOUT H.C.S.'s AUTHORITY.

CONNECTED FILES.

NUMBER AND YEAR.

TRN/AVI/2#8	
0270/R/II	0 2 7 0 / R / I I
FIDS/73	

212

9 0270/c

29th. October 1952

From: Ag. Controller of
Communications,
Stanley.

To: The Hon. Col. Secretary,
Stanley.

Herewith report on the Hold up of Norseman at San Carlos
as requested.

John P. Blair
Ag. Controller of Communications.

28th October, 1952. 213

From: Mr. M. Smith,
Aircraft Engineer,
Stanley.

To: The Ag. Harbour Master,
Stanley.

REPORT ON RECENT BREAKDOWN OF NORSEMAN AIRCRAFT VP.FA9.

The cause of the delay at San Carlos was due to a breakdown in the generator circuit which resulted in a flat accumulator the result being that the Pilot was unable to restart the engine.

Had an engineer been with the aircraft it might have been possible to get the aircraft flown back to Stanley but he would not have been sure of his decision as he would have had no instruments on hand to check the circuit to determine the cause of the breakdown.

Indirect

G.A. above submitted

J.D. 20/10

*Seen T.V. See that the News Reader
* felt the correct story. @
30/10*

*ACS x any. st.
J.D. 20/10*

Am. informed any.

S. 31/x

Boy

GOVERNMENT TELEGRAPH SERVICE

214

FALKLAND ISLANDS AND DEPENDENCIES.

SENT.

Number	Office of Origin	Words	Handed in at	Date
				16. 2. 53.
To				H.O. Acct.
	G/FCAR MONTREAL			

URGENT NOTICE REGARDING HORSEMAN MARK V SERIAL NUMBER 29-45 STOP THE SHIP RUDDER TRIM TAB CONTROL SHAFT FAILED DURING FLIGHT STOP THE BEARING MOVED AFT ALLOWING SLEEVE ASSEMBLY RUDDER TAB CONTROL SHAFT TO FOLLOE SHAFT ASSEMBLY ELEVATOR BURN GUMMA THUS PREVENTING FORWARD MOVEMENT OF CONTROL COLUMN STOP NEW PARAGRAPH

FAILURE WAS DUE TO FOUR CENTRE POP HARDS ON GND BEING INADEQUATE TO RETAIN THRUST BEARING IN CORRECT POSITION STOP NEW PARAGRAPH

IT IS CONSIDERED THAT THIS SHD BE BROUGHT TO THE NOTICE OF ALL HORSEMAN MARK V OPERATORS

COLONIAL SECRETARY.

ACS file
Bo. 20/2/53
has been in action
SS
PA

Time

Extract from letter from Mr. A. Dougall to H. E. the Governor
of 28. 6. 53.

.....

With reference to the Norseman, it will be necessary to at least get it to Montevideo, where I could try and sell it for you. It all depends on the condition of the aircraft, and I will instruct Trill to write a report on it, and give me a rough idea of what it would cost to overhaul it up to C. of A. standards. I will also write to Canada and see whether they would take it in part payment for another Beaver, but this means that you would have to crate it and pay the freight to the Factory. It might well be worth your while to consider this, and Trill can assist in the crating for you. I will let you know what Canada have to say on the matter as soon as they reply to my letter.

H.M.

A S/F *idea 1/2/53*

P20 note above extract. Harbormaster should start preparing a 'washing list' of queries for the Trill when he arrives. I can think of

- ✓ a) Engineer for mechanic establishment which RCAF should maintain.
- ✓ b) Licences which engineer should hold.
- ✓ c) Future of Nigel Aldridge.
- ✓ d) Hangar equipment required for efficient maintenance of planes.
- ✓ e) Safety precautions in hangar.
- ✓ f) Wireless equipment.
- ✓ g) Inspection of Anders
- ✓ h) Certificate of airworthiness.

H.C.S. noted to y. Trill will stay with me during his visit so I should get his views fairly comprehensively. Incidentally I know him already - we shared a bedroom for a few days during 1950! *pk. 9.7. ACS Note to cancel ship board*

File 216

H/M

ACS
Boyl
20/5

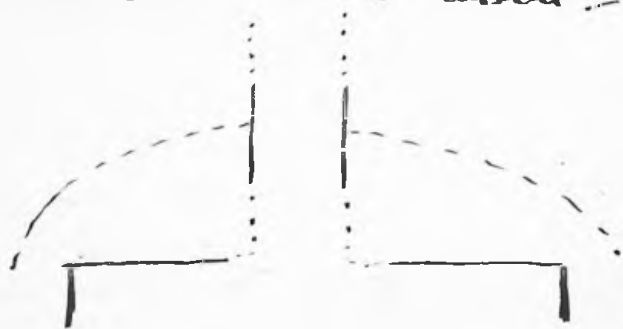
Norseman.

I gather that there might be a sale for the ski-stands in Canada; they have never been used and (I say) have been looked after since they were very costly. We

We must take advantage of Mr. Eric's presence to hold a Board on this aircraft which should submit a formal recommendation as to its future: H/M Chairman, Messrs Fowler & Eric & Mr. Lygo as members.

at the hangar
2. I was up this afternoon and it looks as though we shall be in difficulty over accommodation when the ~~Norse~~ Beaver has its

Wings on. I think, in any case, that we must extend the concrete apron in front of the hangar to enable planes to be manoeuvred around outside:-



3. The Board should also make recommendations regarding FIDS floor Duster & hand Duster and as to Hangar equipment & tools.

the 17^{viii}

Also is draft Civil Aviation Bill getting on

I enquired some weeks ago & have had no reply.

0270/R/II

219

21st August, 53.

Sir,

I am directed to inform you that His Excellency wishes to constitute a Board of Survey under the Chairmanship of the Harbour Master and including the de Havilland pilot and engineer to decide on the future and, if necessary, the method of disposal of the Falkland Islands Government Air Service Norseman, land Auster and the second float Auster.

2. The Board will also be asked to make recommendations regarding the Hangar equipment and tools.

3. I am to enquire whether it would be possible for Lieutenant P.D. Lygo to serve on the Board also and if Monday 31st August at 10 a.m. at the Hangar would be a convenient time and place of meeting.

I am,

Sir,

Your obedient servant,

Reply at 219

(Sgd) C. Campbell

COLONIAL SECRETARY.

The Commanding Officer,
H.M.S. Veryan Bay.

279

H.M.S. VERYAN BAY,
at Port Stanley.
22nd August, 1953.

No:- 807/2/A.
THE COLONIAL SECRETARY,
FALKLAND ISLANDS.

Sir,

279

With reference to your letter No.0270/R/II dated 21st August, 1953 it will be quite convenient for Lieutenant R.D. LYGO, Royal Navy, to serve on a Board of Survey and he has been instructed to be at the Hangar at 10 A.M. on August, 31st.

I have the honour to be

Sir,

Your obedient servant



(R.G.W. HARE)

C A P T A I N

Handwritten notes: "H.M. to see" and a signature.

HM

(216)

218

I have asked Capt Hare & Lt. Lygo & have suggested Monday 31st August at 10 am. at Harper. Do write Penn Fowler's title to be members.

22/8

H.C.S.

Noted by.

22/8

HM

If Beaver ~~delayed~~ testing is delayed until the oil arrives, 31st may not be very convenient. I suggest therefore that Penn title & Fowler might have a preliminary conference by themselves so that little time will be required for the survey when Lt. Lygo is here.

2) If Captain White gets the oil, I presume you will consider flying out to collect it at her first port of call.

24/8

H.C.S.

Brill & Fowler will be looking at the Harseman as soon as the Beaver is finished in any case.

2. Yes - especially if any leaks are showing

25/8

25/8

25/8

25/8

25/8

25/8

EXTRACT FROM REPORT BY BOARD OF SURVEY ON F.I.G.A.S. AIRCRAFT. OF 31. 8. 53.

(Original filed in 0270/J/IV - F.I.G.A.S. Aircraft).

1. Norseman.

The board considers that this aircraft is beyond the stage where it can be economically re-conditioned. It is recommended that the market value of the engines and propellers of this aircraft be ascertained in both the United Kingdom and Canada, and if it should prove an economic proposition, these should be shipped for sale. The market value of the floats in Canada or the United States should be discovered and an effort made to sell these.

The board considers that the airframe and the ski-wheel under-carriage attachments are not worth shipping and should be reduced to scrap.

The wireless, which does not command a high second-hand price, should be utilised locally if possible.

(MacDougall) Uruguayan Air Force.

EXTRACT FROM Memo. by H.C.S. TO H.E. THE GOVERNOR of 1/9/53.

(Original filed in 0270/J/IV - Aircraft).

Only the Norseman?

NO.- better ask Group Captain MacDougall.

1. This is really a F.I.D.S. commitment but we can make the enquiries. Can we trust C/agents to make all diligent enquiries? If so I will get particulars to them on this mail.

.....
Government to approach de Havilland's sales representative in South America as to possibility of sale of Norseman parts there.

Possibility of shipping Norseman parts to Montevideo by warship to be investigated.
.....

223

.....

Extract to
0270/R/II and
B.U. early.

1. I would like to see a list of the Norseman parts for disposal - floats, 2 Engines and (?) 2 propellers should fetch something. Mr. Fowler tells me that some of the instruments would be of use for the Beaver but recommends that they be reconditioned before storage.

.....

Hon.
(223) - for early
action pro.
P
9/9

P.S.

Norseman parts for disposal:-

1. Pair of floats - Edo Mod.No. 55/717 OA.
In fair condition (would require servicing).
2. Two propellers - Hamilton Standard C.S. Two bladed 12 d 40/211.
Both need re-conditioning.
3. Two engines - R 1340 A.N.1. Pratt & Whitney Wasp.
One re-conditioned & has not been run since.
One with approximately 250 hrs since re-conditioning.
4. Usable instruments will be removed & despatched per "Biscan" for servicing.

11.11.53.

YLS

(223) - per see (224)

I suggest we wire Gp. Capt. MacDonnell while the details are still fresh in Mr. Trill's mind.

Please do so.

Naseman again proposed.

14/9

We must inform SJS about Board a

huc

15ix

GOVERNMENT TELEGRAPH SERVICE
FALKLAND ISLANDS AND DEPENDENCIES.
SENT.

Number	Office of Origin	Words	Handed in at	Date
				16.9.53.
To	MACDONALD, DE HAVILLAND, MISIONES 1361, MONTEVIDEO.			HUA/C

NORSEMAN AIRCRAFT NOW CONSIDERED AND TRIAL AND OTHERS RECOMMENDED
 FOLLOWING PARTS ONLY WORTH SELLING STOP BRACKET A BRACKET PAIR OF FLOATS
 COMMA EIG MOD NO 55 OBLIQUE STROKE 7170A COMMA IN FAIR CONDITION BUT
 REQUIRE SERVING STOP BRACKET B BRACKET TWO PROPELLORS COMMA HAMILTON
 STANDARD C.S. TWO BLADED 12 D 40 OBLIQUE 211 COMMA NEEDING RECONDITIONING
 STOP BRACKET C BRACKET TWO ENGINES COMMA R 1340 A.N. 1 PRATT AND WHITNEY
 WASP COMMA BOTH RECONDITIONED AND RUN 250 AND NIL MILES RESPECTIVELY STOP
 NEW PARA 2 VERY GRATEFUL YOU ASCERTAIN IF ECONOMIC MARKET AVAILABLE X
 ENGLAND CANADA OR SOUTH AMERICA.

Reply at 237.

GOVERNOR.

ACP (230) - In view to draft off
 should like to see earlier file showing
 history of Norseman & Post purchase
 of same

Time

16/9

CGG

A.C.S.

Above. - Pl. see 0270/R att.

14/9.

DECODE.

TELEGRAM SENT.

From GOVERNOR to SECRETARY OF STATE

Despatched : 19.9.53 Time : 1130 Received : Time :

136 in F105/74

No 173. Your Colony Savingram No 64/51. Purchase of Aircraft. As a result of recent acquisition Beaver seaplane Colony has no further need of Norseman and opportunity of presence of de Havelland engineer and test pilot and a serving Naval Air Pilot was taken to hold independent Board of Survey on it.

2. Board decided that

- (a) Norseman cannot be economically reconditioned (it suffered prolonged exposure in the South and corrosion has set in).
- (b) Packing and freight costs if sent overseas for sale would be prohibitive.

and Board recommended :- that market for floats, engines and propellers be explored and remainder reduced to scrap and given to Colony Air Service for such use as latter may be able to make of it.

3. I endorse decision and recommendations and your covering approval is sought.

GOVERNOR

Am.
231-233 *f.i. Q*
21.0

H.C.S.

Noted ty. I see there's a slight error at x in
page 231 - this should read 250 hours not miles.

Bill will probably remember this however, & in any case
engine running is always measured in time not distance
so they will be able to work it out for themselves.

Jh
22.1X.

Tel.: GRavelle 5878

NOORDUYN NORSEMAN AIRCRAFT LIMITED

P.O. BOX 5 • MONTREAL 9, QUE.

SOLD TO Governor,
Port Stanley,
Falkland, Islands.

DATE July 29

Your Order No. Your Cablegram 14/7/53

Our Order No. N-45

SHIPPED VIA Airrex.

TERMS 1%-10 days net 30.

WE CANNOT ACCEPT GOODS RETURNED WITHOUT PERMISSION

235
20SEP 1953
FALKLAND ISLANDS

20SEP

ITEM	QUANTITY	PART NO. AND DESCRIPTION	UNIT PRICE	AMOUNT
1	2	16-52558 (DS108/2T) Conduit Flexible Control.	4.00	\$ 8.00
		Air Express Charges.		7.75
				\$ 15.75
		Payable in Canadian Funds.		
		FIGAS		

INVOICE

GOVERNMENT TELEGRAPH SERVICE

237

FALKLAND ISLANDS

SENT

Number	Office of Origin	Words	Handed in at	Date
				29.9.53

To
 MACDONALD, DE HAVILLAND, MISSIONES 1361, MONTEVIDEO. HCA/C

231
 MY TELEGRAM 16TH SEPTEMBER STOP HORSEMAN FOR MILES PLEASE READ HOURS.

GOVERNOR

Time

25

Bel. (maie)
2/11
2/11
8/19

2410 Namaul, H.K. ...

26th October,

53.

Gentlemen,

238 I am directed to forward an account from the Noordlyn Norseman Aircraft Limited of Canada, and to ask you to be good enough to arrange settlement of the amount shown.

I am,

Gentlemen,

Your obedient servant,

(S) C. Campbell

COLONIAL SECRETARY.

The Crown Agents for the Colonies,
4, Hillbank,
LONDON, S.W.1.

Colonial Secretary's Office,
Stanley, Falkland Islands.

26th October, 1953.

Sir,

238

I am directed to refer to your account (Order No. N-45) of the 29th of July, 1953, for aircraft spares amounting to \$ 15.75 Canadian, and to inform you that the Crown Agents for the Colonies in London have been asked to settle the account.

I am,

Sir,

Your obedient servant,

(Sgd) C. Campbell.

COLONIAL SECRETARY.

Noorduyn Norseman Aircraft Limited,
P.O. Box 5,
Montreal 9, Que.

A.I.
Enste from 238 pl. Wt for. 28.
27/x

Hones
notes. 14.
2/12/53.

000



243
BRITISH CONSULATE,

PUNTA ARENAS, CHILE

November 20th, 1953.

38/1/5

A

Colin Campbell Esq.,
Colonial Secretary,
Port Stanley.

Dear Mr. Campbell,

The local Aero Club tell me that they learnt during the last visit of "Fitzroy" that you have a sea plane for sale with accommodation for about 8 people. If this is true, they would be very interested in buying it provided it was in good condition.

The Club understand that the price is £400 and I shall be glad if you can let me have full particulars of the 'plane so that the people can know what they are buying.

With kindest regards,

Yours very sincerely,

Tom P. Jones.
British Consul.

H.C.S.

Sorry A/S/F knows nothing about this. Bolony has had the best of the bargain and I suggest Bolony takes on the job of disposal

[Handwritten initials]
14/12

B
SP. I suspect A/S/F has been trying to flog the horseman on the quiet!

[Handwritten initials]

Reply at 248

244

SF

(243)

A

My B was purely factious. If we
 are likely to get a better price in future
 for the break down value here, I
 will certainly pursue it. In the meantime
 could you let me know if S.S. has
 app'd or commented on the write off -
 I think it is on your files.

14/12

B.

H.C.S

We appear to have had no reply from
 S. of S. - our file is attached (this file I feel
 should be closed). Perhaps a reminder should
 be sent to S. of S. as we cannot sell until
 write-off figures obtained.

G. ~~244~~
15/12

SF Could you please send a reminder - I will
 be in the meantime I will get H.C.S. value on
 the matter.

27/12

Copy filed in FIDS/13/III

246

DECODE.

TELEGRAM SENT.

From SECRETARY OF STATE to GOVERNOR

Despatched :

Time :

Received : 18.12.53 Time : 1030

233

No. 176. Your tel 173. Norseman Aircraft.

Decision and recommendations approved.

2. Although Colony estimates show that sum of £300 was paid to Dependencies in 1950 no payment was apparently made in 1951 and I should be grateful to learn total amount paid to Dependencies during hire of aircraft.

See 251

Office
Action taken at 248
pl early
to R.H.S.
return.
2/12

GTC: OR.

Reply at 254

A.C.S.
Copy filed in FIDS/13/III
E.G.
21.12.

Sale of Norseman.

We can offer:-

1. Norseman airframe in poor condition.
 2. P. & W. "wasp" series (550 H.P.) engines.
 2. Norseman propellers - one fair condition, one poor.
 1. set "Edo" floats for Norseman in fair condition.
 1. Ski-wheel undercarriage in fair condition.
- Sundry spare parts, including instruments.

Price at Falklands £250. (?)

Crating & packing, say, £500

Insurance, freight, etc. £250

Estimated cost on arrival £1000.

The remains of the Norseman are probably worth about £150-£200 to F.I.G.A.S. ultimately as scrap.

22nd December, 1953.

243

Dear Jones,

Please refer to your letter of the 20th of November, 1953, on the subject of the purchase of a seaplane by your local Aero Club.

We could offer you

- (a) 1 Norseman airframe in poor condition.
- (b) 2 P & W "Wasp" seniors (550 h.p.) engines.
- (c) 2 Norseman propellers - one fair condition - one poor.
- (d) 1 set "Edo" floats for Norseman in fair condition.
- (e) 1 Ski-wheel undercarriage in fair condition.
- (f) Sundry spare parts including instruments.

The price would be \$500, where it lies, and the cost of crating, packing, freight and insurance would have to be met by the Aero Club - this might well be in the region of \$750.

Yours sincerely,

(Sgd) C. Campbell

Rev 246

Reply at 249.

T.P. Jones, Esq.,
H.B.M. Consul,
British Consulate,
Punta Arenas,
CHILE.

C. J.

246 f r y. o. p.

*refd.
29/11.*

A/T.

(246) I suspect payment of rent to F.I.D.S. has been overlooked.

pl. let me have details of payments made & owing.

*[Signature]
29/12*

VP



249
BRITISH CONSULATE,

PUNTA ARENAS, CHILE

January 5th 1954.

Your Ref. 0270/R/11.
Curs : 38/1/5.

Dear Mr. Campbell,

248
I have to acknowledge and thank you for your letter dated 22nd Dec. on the subject of the purchase of a seaplane by the local Aero Club and I have passed on your offer to the people interested.

A deputation came to see me and we discussed the matter but it was finally decided in view of the poor condition of the framework and of the various other items as set out in your letter that your offer could not be accepted.

I must personally agree with the view expressed to me that it would be rather unwise to buy this seaplane unseen. The Club asked me to convey to you its appreciation and thanks for your offer.

With kindest regards,

I am,

Yours very sincerely,

Colin Campbell, Esq.,
Colonial Secretary's Office,
Stanley,
Falkland Islands.

B.V.F.
Recalled from A.T. who
would like file back pl.

11/1/54.

250

HM.

St ✓ to see (249)

(KIV 246)

12/1

HES. Noted ty.

13.1.

HES

13/1

13/1

249

Harris.

(248) a sum of £600 was paid on 21/3/53. i.r.o. hire for 1951 - we have ^{1954/55} £600 in the estimates to pay for 1952. It would therefore appear that one year's rent has been missed. I have arranged payli to M.D.S. i.r.o. ~~1952~~ 1952 a.s.l. for 1957 pl? *TH*

C.T.

(252)

Does this mean that the normal annual budget agreement was £300 - with £600 ?

Q

A.C.S.

A figure of £50 p.m. was originally fixed for hire of Norseman & Anster aircraft.

- 2. In December 1951 the Anster was purchased from F.I.D.S. for £500. but I can trace no pp. regarding any alteration in hire rate as a result.
- 3. In Nov. 1951 a spare engine was purchased for Norseman from Dependence Funds (£850) and at (159) in O270/C S/S suggested we should increase the hire charge in view of this, at 162 same file we agreed to the suggestion but nothing further appears to have transpired.
- 4. As the new engine cost £850 & we purchased Anster for £500 and as the selling of the Anster coincided with purchase of engine I suggest we continue the hire charge at £50 for Norseman only.

J.S.B.
29/4/54

C.T. I agree.
29/4

DECODE.

TELEGRAM SENT.

254

From GOVERNOR to SECRETARY OF STATE

Despatched: 29.4.54 Time: 1515 Received: Time:

246

No 115. Your telegram No 176/53 . Total hire charge
for period £1940 of which £1500 paid. Payment of
balance being arranged.

GOVERNOR'S DEPUTY.

Office.

Pl. issue & then file back to me.
(Intld)J.E.B.

A. J. / ^{252.} Pl. p.u. A.I.S.E. of

P/L.
SM

IV

N.I. Hire of FIDS Aircraft.

255

H.M.

Change Expt. Head IV - New Item. Issue of FIDS Aircraft.

Would you please complete enclosed AISE return to this office.


A. I. S. E.
13/4/64


H.C.T.

A. I. S. E. Submitted



Hon. cl.

File returned.

 22/5/64
C.A.H.
25/5

256

NOORDUYN NORSEMAN AIRCRAFT LIMITED

151 MARCIL ST. - ST. LAURENT, P. O.

CANADA



CABLE ADDRESS
NORSEMEN, MONTREAL

PHONE: BYWATER 8411
POSTAL ADDRESS
P. O. BOX 5, MONTREAL 9, P. O.



August 2, 1954.

The Colonial Secretary,
STANLEY,
Falkland Islands.

Dear Sir,

Our Engineering Department have compiled a list of modifications which will result in an increased pay-load of your UC64 (MkVI) Norseman aircraft. We attach a copy of this list which describes these modifications and we will be pleased to forward you bulletins and prices on request.

257-259

Very truly yours,

NOORDUYN NORSEMAN AIRCRAFT LTD.

A. Latremouille.
Sales Manager.

Encl.

AL/mlw.

HM.
Alas - too late!
19/10

H.C.S. Too True.

257

NOORDUYN NORSEMAN AIRCRAFT LIMITED
151 Marcell Street
St. Laurent, P.Q.

June 1, 1954.

SERVICE BULLETIN N.N.A.L. - E-2-54.
CONVERSION OF NORSEMAN C54 (MkVI), FOR COMMERCIAL USE.

In the production of the Norseman MkVI, designated UC64A, C64 and C64A, for the U.S.A.F. during the war, numerous details were incorporated to conform to U.S.A.F. requirements and standards, which do not meet the needs of operators for civilian use. These were changed in the subsequent commercial Norseman MkV, which became the postwar model. Many of these changes can be readily incorporated in the war-surplus MkVI type, with markedly beneficial results to its commercial utility. The management of Noorduyn Norseman Aircraft Ltd. has not been able to determine whether full information on these details was generally issued to the operators in various parts of the world who acquired Norseman MkVI from U.S. Government surplus, but it is believed useful to do so even at this late date. It should be noted that, in general, these changes result in a decrease in the empty weight and consequently an increase in pay-load as well as improved conveniences.

Some of these modifications can be carried out readily "in the field" by operating personnel, while others can obviously only be carried out when the aircraft is in the shop.

For each of these modifications a complete report was prepared shortly after the end of the war, embodying detailed instructions and a list of drawings of the parts required. Copies of these reports, and kits of parts, materials and drawings can be furnished by Noorduyn Norseman Aircraft Ltd.

1. Operators acquiring a MkVI Norseman should go carefully over the installed equipment, with a view to eliminating what is not needed for their operations. Six of such eliminations are detailed in NAL report No.758 as follows:-

- I. Pyrotechnic equipment: weight reduction 7 lbs.
- II. Litter installation parts: weight reduction 11 lbs.
- III. Lower identification lights, switches and wiring: weight reduction 6 lbs.
- IV. Radar: weight reduction 40 lbs.
- V. Stowage for Dinghy radio: weight reduction 2 lbs.
- VI. Relief Tube installation: weight reduction $2\frac{1}{2}$ lbs.

CO2 Pressure Fire Extinguisher Installation: On some series of the MkVI airplanes, U.S.A.F. A-11 equipment, now obsolete, was installed. It weighed 32 $\frac{1}{2}$ lbs., complete with bottle, pipes, controls, etc. It is recommended that this be removed on civilian aircraft. If a pressure extinguisher installation is desired, much lighter and more effective Methyl Bromide systems are now available.

Invariably, a considerable saving in weight can be effected when this is all added up, even if single items may seem insignificant.

2. Radio:

Lighter, more simply installed radio equipment is also frequently adopted. Replacement of the U.S.A.F. Radio set 274-N by Lear T30AE/RCBB at a weight reduction of 78 lbs, is detailed in Report No.756.

3. Removal of blow-off door arrangement on cockpit:

Installation of hinge pins, removable as a unit from inside to permit the cockpit doors to be jettisoned, was made on the Norseman MkVI, to comply with standard military requirements. Utility is highly doubtful, as the door is liable to carry away the stabilizer, which would throw the airplane into attitudes which may make parachute exit practically impossible.

The rods interconnecting the hinge pins result in additional cockpit noise due to airflow disturbance, increased drag and increased weight. They should be removed on civilian aircraft, normal individual hinge bolts being substituted. The saving in weight is 4 lbs.

4. Relocation of battery: Report No.762.

In this modification the battery is moved to a position completely aft of the cabin and installed there on a sliding rack, which can be pulled outside the fuselage through a door in the side (somewhat like the drawer of a filing cabinet). Making and breaking electric contact is automatic, through prongs and spring sockets. The cable-lead is laid in a new channel under the centre of the floor. The advantages of this modification are: the removal of any interference between the battery and cabin load, quick and easy servicing from outside the aircraft, and a slight backward movement of the CG, which is particularly useful when it is desired to balance the additional weight of a three-bladed propeller.

This is a shop modification and results in a weight reduction of 10 lbs.

5. Installation of new type passenger seats: Report No.780, Part I.

In the MkVI, the passenger seat provision consisted of a bench seat for 3, with parachute buckets, on one side of the cabin and a similar seat for 2 across the rear. Each seat unit with its supporting frame was readily removable but could not be folded flat. In the modification offered, as installed in the MkV, bench seat units, for 3 passengers on each side, are hinged on fittings which are clamped to the fuselage structure on each side. The seat buckets are only of sufficient depth to act as cushion retainers; cushions are provided which are attached by snap fasteners. The seat legs are hinged and are attached at the lower end to Dzus fasteners under the floor, from which they are released by being given a quarter turn by hand. Each seat then folds up flat against the wall and is retained by a small strap and snap fastener. A similarly installed seat, for 2 passengers, is provided across the cabin, aft of the door. It is removable in a similar manner and also folds up flat instantly for stowage against the rear wall. When the seats are folded up or removed, there are no projections above the floor level.

All attachment fittings supplied are clamped to the structure or screwed under the floor, so that the entire installation can be made in the field by maintenance personnel, the only operations other than installing, being the cutting of the necessary holes in the wall panels and floors.

The entire bench seat installation for 8 passengers results in a weight reduction of 7 lbs, as compared with the standard 5 seats of the MkVI.

5a. Upholstered individual chairs: Report No.780, Part II.

If desired, 6 upholstered chairs facing forward can be supplied and installed, without disturbing the bench seat provisions. For this purpose 4 aluminum alloy angles are screwed to tapped fittings, clamped on the structure below the floor, on which the clevis-ended legs of the chairs are attached by pins and cotterpins. When the angles are removed, there are again no protruberances above the floor.

To permit this installation, the relocation of the battery, above described, must be carried out. It is also necessary to modify the filler neck of each belly tank which it may be decided to retain, in accordance with Report No.761.

5b. Cargo tie-down lugs:

When the bench seat modification (5) is made, the original seat hold-down pins B10061 can be retained (although not needed for the seat installation) and used for the installation of cargo tie-down lugs 16-53051 (10 per airplane).

If provision for the installation of the 6 individual chairs (5a) is made, cargo tie-down rings 29-55002 can be used (10 per airplane), which are screwed into the bosses provided for the seat-rails.

6. Replacement of pilot's and co-pilot's seats: Report No.776.

In the MkVI, the pilot's and co-pilot's seats are of the parachute-bucket type and cannot be folded up, thus interfering to a considerable extent with quick exit and entrance through the cockpit doors. In the modification offered, the seat buckets are only of sufficient depth to act as cushion retainers. Cushions with snap fasteners are provided and the seat bottom folds up. This modification can be carried out by operating personnel, as the seats fit the original mountings, without cutting or welding. The weight change is negligible.

7. Substitution of baggage compartment for belly tanks: Report No.743.

On all Norseman, provision has been made for installing additional fuel capacity, in additional tanks inside the belly of the fuselage under the cabin floor. All MkVI's were delivered with both front and rear belly tanks installed, capacity 37 Imp.galls (45 U.S.galls) and 64 Imp.galls (77.U.S. galls) respectively. These are additional to the standard wing tanks, which have a combined capacity of 100 Imp.galls (120 U.S.galls). Both belly tanks can of course be eliminated, to save weight, if capacity additional to the wing tanks is not required. However, there are many cases in which it is desired to retain the front belly tank and eliminate the rear. The space previously occupied by the rear, or both tanks can be made into a useful baggage compartment, (capacity 20 cu.ft. - 150 lbs - rear tank only removed) by lining the belly fairing and installing a baggage door. Such a baggage door has been standard on all commercial Norseman, it being a feature of the type that in this way additional baggage or camping or hunting equipment can be carried, with additional fuel as the alternative, all within the lines of the fuselage. It is considered that removing either belly tank and installing lining and door in the fairing is a shop job. Reduction in weight is 43 lbs when the rear tank is eliminated, or 78 lbs for both.

8. Substitution of smaller oil tank.

On the MkVI, with as standard equipment 2 belly fuel tanks and an emergency 30 gall. cabin tank, the U.S.A.F. specified the installation of an oil tank containing 20 U.S.galls of oil. It being common practice to fill the oil tank until it overflows at the neck, it is probable that commercial operators of the MkVI are not only habitually carrying the unnecessary weight of the large oil tank, but also some 100 lbs of unnecessary oil, instead of equivalent payload. On the MkV an oil tank of 8.5 Imp.galls is installed as standard equipment and a newly designed oil tank of 9 Imp.galls actual oil capacity plus ample foaming space, is now available. It is suspended from the same fittings, and only minor modification of one oil pipe is involved. Oil dilution is incorporated. The tank is of .064" material and reinforced around the sump, where cracking has been known to occur on MkVI and MkV tanks. The weight reduction (empty tank alone) is 6 lbs.

9. Modification of aileron and flap controls: Report No.754, Part I.

In the MkVI, as in all previous Norseman types, a mechanism interconnecting the ailerons and flaps was provided, which had the effect of drooping both ailerons 15 degrees while the flaps were being lowered through their full range of 40 degrees. In the MkV this interconnection was eliminated, it having been determined that the flap effect is negligibly reduced, while the effectiveness of the aileron is improved.

This modification, consisting of removal of certain parts and the replacement of others, can be carried out by operating personnel in the field, although more readily in the shop during overhaul. It results in a weight reduction of 20 lbs.

10. Modification of tips of wing spars: Report No.754, Part II.

In the MkVI wings, the routing of the wing spars towards the tip follows the tapering depth of the spars, leaving spar flanges which join into a solid at the extreme tip. In the MkV wings, the routing is continued at full depth straight out to the end, thus cutting away the flanges as the extreme tip is approached, as a matter of saving in weight and manufacturing cost. This same modification can be readily made in MkVI wings, but is a shop job as considerable opening up of the wing fabric, or re-covering, is involved. The weight reduction is 10 lbs.

11. Doping scheme.

It has been determined without question that the rough surface of the standard wartime doping scheme resulted in a substantial decrease in all-round performance. This can be corrected on re-covering by applying a highly polished finish, such as has always been standard on commercial Norseman aircraft.

Rejuvenation and polishing of existing finish can also be undertaken, in accordance with Report No.771, but should only be considered where proper dope-shop facilities are available.

12. Relocation of U.S.A.F. B16 Compass: Report No.789.

By this modification, the magnetic compass is removed from the dash and placed in the forward part of the cabin roof, where there is less magnetic disturbance. The weight increase is 1 lb.

13. Circuit Breakers: Service Bulletin E9/46.

It is recommended that the Klixon Non-trip-free circuit breakers, C6363-2 be replaced by Klixon trip-free circuit breakers C6363-1.

14. Balanced Damper type Control on Carburetor Air Mixing Chamber: Service Bulletin E1/44/A.

This modification is required on all MkVI airplanes from No.43-5109 thru No.43-5372, subsequent numbers are so equipped.

15. Recommended modification of Carburetor Air Mixing Chamber: Service Bulletin E11/45.

16. Recommended installation of Generator Filter Box, Condensor and Antenna Wire Bonding: Service Bulletin E10/45.

This has a considerable effect on radio noises. Weight increase 3 lbs.

17. Installation of three-bladed propeller: Service Bulletin E8/45.

This has an important all-round effect on performance, particularly take-off on floats. Weight increase 64 lbs.

18. Replacement of Lastex and Kapok Cabin Lining with Quilted Aerolite.

This is an important weight saving item, exact amount is not on record.

19. Cabin Heating:

Certain series of U.S.A.F. MkVI Norseman were equipped with Janitrol-Surface-Combustion heaters, and others with an extended exhaust tail-pipe with intensifier tube. The substitution of this tail-pipe, 16-42022C-2 for the short elbow-exhaust, is covered by Report No.775.

20. Night Flying Equipment:

The original U.S.A.F. landing lights can be replaced by Grimes ST.250 retractable lights, in accordance with Report No.772. The weight reduction is 4 lbs.

The original U.S.A.F. type wingtip and rudder position lights can be replaced by C.A.A. approved Grimes Lights, in accordance with Service Bulletin E.15/46.

The installation of C.A.A. approved type flares is covered by Service Bulletin E14/46.

NOTE:

The fore-going items do not include the mandatory modifications covered by C.A.A. Tech-Orders and corresponding orders of the Canadian Department of Transport, inasmuch as it is presumed that these were issued to all Norseman operators and the airplanes modified prior to re-licensing.

ACB

(256)

pm. seems to be clearing
out the Canyon Stables - can
I see have a list of files
marked out there.

25/2/55

Office

Re

26/2/55.

Rep.

List prepared by Dick Black as v.c. re.

2/10.

Extracted &

Pa. 2/10

262

NOORDUYN NORSEMAN AIRCRAFT LIMITED

151 MARCEL ST. - ST. LAURENT, P. Q.

CANADA

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POSTAL ADDRESS
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CABLE ADDRESS
NORSEMEN, MONTREAL

TO JAN
December 8th, 1955.
A

The Governor of the Falkland Islands,
PORT STANLEY,
Falkland Islands.

Dear Sir,

As you are owners of Noorduyn Norseman MkV, VP-FAD aircraft, we would like to inform you that Mr. R.B.C. Noorduyn, the designer of the Norseman, and associates have re-acquired the rights of the Norseman aircraft from Canadian Car & Foundry Co. Ltd., and have constructed a plant in the town of St. Laurent, Que. to handle the servicing and supply of spare parts to the more than 600 Norseman which are still in operation throughout the world.

At the present time, we are assembling 3 MkV Norseman which may be of interest to you and we shall be pleased to hear from you concerning the operations of your Norseman in the Falkland Islands.

Very truly yours,

NOORDUYN NORSEMAN AIRCRAFT LTD.

A. Latremouille.
Sales Manager.

AL/mlw.

Amr.

3
We haven't a Norseman now
but you may have something of
interest to tell them.

Amr.
12/11
H.R.S. I don't think we need reply - the only fair answer would be that it proved unsuitable for salt water operations! D.R. for C.S. 19/1/56

HCI 262 No action necessary
in view of 262 c?
Dlu
7/4/56

Xain B ka 7/4/56
7/4.

[Handwritten signature]