

ENQUIRY INTO VP-FAP ACCIDENT
AIR 7/5

CLASSIFICATION Confidential

GROUP Aeronautical

SUB-GROUP Reports

AIR / 7/5
VOL 1

TRN/AVA/1 # 8

SUBJECT Investigation into Accident
of VP-FAP

ARCHIVE

OFFICER DEALING SELECTED FILES

FILE OPENED ... 29

FILE CLOSED April 1971
16.8.85

- CS 1 ✓
- HE 1 ✓
- P/Sect 1
- C.L. 2 ✓
- A. Supt. 3 ✓
- CS 4 ✓
- A. Spt 5 ✓
- CS 6 ✓
- HM 7 ✓
- CS 8 ✓
- CS 9 ✓
- HE 12 ✓
- PA
- APS ✓ PA
- ASCC ✓ ✓
- PA.

CLOSED

7E

May sign letter a.c. appointing Mr. Kanagasabai inspector for the accident to V.P.-GAP.

I have covered Mr. K's reservations at (1) in the text of the letter of appointment.

Tel a.c. to get P.O. on notice.

5/2

2

C.S.

Letter of Appointment signed and telegram sent A.F.C.I.

J.M.P. 1/2

3

Mr. Kanagasabai

You may wish to retain this file for your own collection.

5/3/2

4

C.S.

yes please.

Be

CS

In connection with the Inquiry into the air accident, the authority in the British Antarctic Territory should be requested to:

1. submit a report (Mandatory Reporting) with the details mentioned in Regulation 14(4) in schedule 15 to the "Air Navigation (Overseas Territories) Order 1976" (p 172) to H E;
2. provide the following documents which are required for the Investigation:
 - a) Pilot's licence and type endorsement
 - b) Flying log book of the pilot
 - c) Defects Record Book maintained for the aircraft
 - d) Journey log book
 - e) Maintenance certificate
 - f) Engine log book
 - g) Propeller log book
 - h) Pilot's last medical examination report
 - i) Meteorological report for the area at the time of the accident.

Canapusa
 Airport Supt
 31.1.77

Airport Supt

Thank you for your 4. I believe you have a telegram reporting the accident - you would not be prepared to treat this as compliance with the mandatory report?

2. As regards the documents for retention, perhaps you will kindly draft a telegram for issue.

5-24
 CS
 7.2.77

CS

Ref your 5

- a) It will be in order to accept the report of "Preliminary Court of Inquiry", consisting of 6 pages, from BAS, as compliance with mandatory report to H E.
- b) Copy of telegram 077 of 26.1.77 (6 on ~~Telegram~~ ^{file} folder) covers the documents necessary for the investigation.
- c) Am I correct in assuming that the pilot of the Twin Otter VO-FAP and the witnesses to the accident are on their way to Stanley by RRS Biscoe for the investigation?

Canapusa
 Airport Supt
 8.2.77

7
 Will you pl. advise A/Supt as at 6/A.
 8/2

Good
 ✓
 A/

CS

8

A/Supt advised that only the 2 Pilots
are on board the Tolo Breeze
9.

C.S.

a copy of the Investigation
report submitted for your
information

Report Supt

10

YE

The copy of the report a.c. was handed to
me today. It is submitted for YE's consideration
in accordance with your directions.

Mr. Stoman has asked if he can have
rights of the report before he leaves tomorrow
(3 March).

YE will wish to consider whether the
report should be published (Reg. 9) and whether
any party should be allowed to make
representations (Reg 8(5))

YE may wish me to speak.

SM
2/3/77

11

CS

The final report of the investigation into the accident
of the Twin Otter VP-PAP is submitted herewith for
transmission to His Excellency the Governor.

2. The earlier draft report has been amended due to the
comments made by the Director of BAS in his letter of
11 March by exercising his right to make representations
under Regulation 8(5).

3. The pilot in command, Mr P A Prattis, has informed that he does not wish to exercise his right to make representations under Regulation 8(5).

pe
APS
22.3.77

12

H E the Governor.

Y.E.

Mr Kanagasabai's minute 11 covers his report, which is submitted at centre. Y.E. will now wish to consider how to deal with the report. Regulation 9 of the Civil Aviation (Investigation of Accidents) Regulation 1959 (attached) is appropriate, and Y.E. will observe that you may publish all or part of the report.

2. I believe that in this case it may be appropriate not to publish the report but simply send copies to the operator, namely BAS.

3. Y.E. will note that representations were made by the Director of BAS and these were partly at least taken into account in the final report.

4. No other action seems to be called for.

C.S.
C. S.
23.3.77

13

①

CONFIDENTIAL
MEMORANDUM

Ref: FIA/21/1

Date 26 January 1977

From Airport Superintendent

To Chief Secretary



INVESTIGATION INTO THE ACCIDENT OF THE TWIN OTTER VP-FAP
IN THE BRITISH ANTARCTIC TERRITORY

1. Reference your verbal intimation that H E the Governor wishes me to undertake the investigation into the accident of the Twin Otter VP-FAP in the British Antarctic Territory, I would like to submit the following for the consideration of the Falkland Islands Government:

- a) I am not an expert in Accident Investigation which is a specialised branch in aviation. My speciality lies in the Airport/Traffic Control side of aviation.
- b) Accident investigation does not come within my Terms of Reference of my contract as specified in the job description and duties of my post as agreed between the Falkland Islands Government and the CFTC.

I will, however, be very glad to be of assistance to the Government, and will be willing to place my services and experience in aviation at the Government's disposal by collecting all the facts and presenting in a form in accordance with annex 13 of ICAO.

2. Therefore, if Government desires that I should conduct a formal inquiry into the accident of the Twin Otter VP-FAP, Government should take steps to arrange the facilities to comply with the provisions of the Colony's Civil Aviation (Investigation of Accidents) Regulations of 1959 - Rules 4; 7.1; 7.3; 8.1a; 8.1b; 8.1c; 8.3 and 9 to enable me to conduct the investigation.

3. May I suggest that it will be desirable to conduct the investigation in private in accordance with rule 8.3.

4. I will be glad if these comments are brought to the notice of H E the Governor.

B Kanagasabai
AIRPORT SUPERINTENDENT

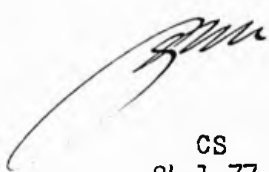
CONFIDENTIAL

1A
H.E the Governor

ACCIDENT TO TWIN OTTER

VP-BAP

1. The Civil Aviation Act 1949 is applied to the British Antarctic Territory by the Air Navigation (Overseas Territories) Order 1976 (article 90 p62 and the Schedule 16 pl78).
2. If an aircraft is registered in the Territory the operator or Commander should make a report to the Governor in accordance with article 79 of the Order (p 57). *VP-BAP is registered in Colony.*
3. The Regulations governing the notification and investigation of accidents under the Civil Aviation Act have been made by the Colony Regulations No 3 of 1959 (p 109,1959). These Regulations apply to the "Dependencies" by virtue of Regulation 2 of these Regulations, and the Dependencies at that time included the British Antarctic Territory in accordance with the Letters Patent 1908, and were saved by Section 13.3 of the British Antarctic Territory Order in Council 1962 (SI 1962 No 400 p 2 1963 BAT).
4. Thus BAS should make a report to Y E in accordance with article 79 of the Air Navigation Order and Regulation 4 of the Regulations, and Y E "shall appoint some fit and proper person as Inspector" to investigate the cause and circumstances of any accident (Regulation 7)
5. Strictly speaking, the Order refers only to public transport registered in the Territory. The Regulations, however, make no such stipulation. In any event, I understand the aircraft was registered in the Colony.


CS
24.1.77

1 February 1977

Mr B Kanagasabai
Airport Superintendent
The Secretariat
Stanley

ACCIDENT TO VP-FAP on 21 JANUARY 1977

In exercise of the powers conferred on me by Regulation 7 of the Civil Aviation Act Regulations No 3 of 1959 I appoint you as Inspector for the purpose of carrying out an investigation into the causes and circumstances of the accident to the Twin Otter VP-FAP in the British Antarctic Territory on 21 January 1977.

2. You should conduct your investigation insofar as you are able in accordance with the provisions of Regulation 8 of the above Regulations bearing in mind that, because of the difficulties of communications and the remoteness of the accident area, it may be necessary to confine your report under Regulation 9 to an exposition of the facts as they are disclosed on the known evidence and statements.

3. Your report should be submitted in strict confidence to me through the Chief Secretary.

GOVERNOR

3

YE (not) John. 27
CS - your file
Date 27/1



V
PRINTERGRAMS
214 GOVERNOR FK

ZCZC P21 NR. 077 PRIORITY 26.1.77 1845Z

FM STANLEY OFFICE
TO ROTHERA POINT
INFO HIGHCOMA STANLEY
RRS JOHN BISCOE (PRATTIS)
CAMBRIDGE HQ

X/044/77. UNDER TERMS COLONIAL AIR NAVIGATION ORDER AN ENQUIRY MUST BE HELD BY BAT AUTHORITIES INTO THE LOSS OF FAP. THE HIGH COMMISSIONER WILL BE APPOINTING AN INSPECTOR AND THE ENQUIRY WILL BE HELD BEFORE THE END OF THE SEASON. CAN YOU PLEASE ENSURE THE FOLLOWING DOCUMENTS ARE FORWARDED C/O BAS OFFICE STANLEY EARLIEST EOPPORTUNITY:

- 1) AIRCRAFT JOURNEY LOG.
- 2) ENGINE LOGS
- 3) PROPELLOR LOGS
- 4) CERTIFICATE OF AIRWORTHINESS (TOGETHER WITH CANADIAN DOT C.C.I.)
- 5) DEFECTS LOG
- 6) LIFED COMPONENT LOG OR RECORD SHEETS.
- 7) COPIES OF STATEMENTS FROM AIRCREW AND PASSENGERS (UNDERSTAND THESE ONBOARD BISCOE C/O PRATTIS)
- 8) PILOTS LICENCES (PRESUME AS PER 7).=

PIW/MB

M. R. to au ph.
528/1

NNNN
PRINTERGRAMS
214 GOVERNOR FK

BRITISH ANTARCTIC SURVEY

C.S.
Handwritten initials and circled numbers 3 and 4.

PORT STANLEY,
FALKLAND ISLANDS.

.....26th January,..... 19 77....

Please quote in reply

No.

His Excellency the Governor,
Government House,
STANLEY.



Your Excellency,

I am writing to inform you in accordance with the Colonial Air Navigation Order, that DHC-6 Twin Otter VP-FAP, owned by the British Antarctic Survey, crashed at lat. 74S, Long 68.40W, on 21st January, 1977.

No passengers were injured but we have a report to the effect that the aircraft has sustained substantial damage and must be considered a total write-off.

Copies of statements from witnesses will be available and will be copied to you in due course, together with all relevant documents.

I am, Sir,

Your obedient servant,

Handwritten signature of W.O. Sloman.

W.O. Sloman
Institute Secretary,
British Antarctic Survey.

FIF0002/02

PP FCO

GR 90

EN CLAIR

FM PORT STANLEY 02/1250Z



UNCLASSIFIED

TO PRIORITY FCO TELNO 36 OF 2 FEBRUARY

ACCIDENT BAS TWIN OTTER VF-FAP 21 JANUARY 1977

1. I HAVE APPOINTED MR B KANAGASABAI, AIRPORT SUPERINTENDENT, AS INSPECTOR TO INVESTIGATE THE ACCIDENT UNDER REGULATION 7 OF THE CIVIL AVIATION (INVESTIGATION OF ACCIDENTS) REGULATIONS 1959 WHICH ARE APPLIED TO BAT BY REGULATION 5 AS SAVED BY SECTION 13(2) OF 1962 BAT ORDER IN COUNCIL.
2. BECAUSE OF PHYSICAL AND COMMUNICATIONS PROBLEMS THE INSPECTOR WILL CONFINE INVESTIGATION TO ASSEMBLING FACTS FROM DOCUMENTARY EVIDENCE AND STATEMENTS AND WILL SUBMIT HIS REPORT TO ME IN CONFIDENCE.
3. PLEASE INFORM BAS HQ WHO WERE EARLIER TOLD OF MY INTENTION AND HAVE MADE ARRANGEMENTS WITH THE BASE COMMANDER TO FURNISH ALL RELEVANT DOCUMENTS.

PARKER

NNNN

SENT AT 02/1439Z GMS

RECD AT 02/1439Z ERW

ZCZC 173 F91 ROUTINE 311210Z JAN77
FM ARGENTINE IS
TO STANLEY OFFICE
F/072/77

FOR HIGH COMMISSIONER
ORIGINAL DEPOSITIONS INQUEST HELD HERE OCTOBER NOW ON
R.R.S. JOHN BISCOE DUE PORT STANLEY MID-FEBRUARY

GOODALE BRIAN

*Noted to y.
R.B
8.II.77.*

*To note & return pl. m
5/2*



*C.S.
(6) (5)*

NR. 077

PRIORITY

26.1.77

1845Z

C.S.

(7) (A)

AIR 1715
FM STANLEY OFFICE
TO ROTHERA POINT
INFO HIGHCOMA STANLEY
RRS JOHN BISCOE (PRATTIS)
CAMBRIDGE HQ

X/044/77. UNDER TERMS COLONIAL AIR NAVIGATION ORDER AN ENQUIRY MUST BE HELD BY BAT AUTHORITIES INTO THE LOSS OF FAP. THE HIGH COMMISSIONER WILL BE APPOINTING AN INSPECTOR AND THE ENQUIRY WILL BE HELD BEFORE THE END OF THE SEASON. CAN YOU PLEASE ENSURE THE FOLLOWING DOCUMENTS ARE FORWARDED C/O BAS OFFICE STANLEY EARLIEST OPPORTUNITY:

- 1) AIRCRAFT JOURNEY LOG.
- 2) ENGINE LOGS
- 3) PROPELLOR LOGS
- 4) CERTIFICATE OF AIRWORTHINESS (TOGETHER WITH CANADIAN DOT C.C.I.)
- 5) DEFECTS LOG
- 6) LIFE COMPONENT LOG OR RECORD SHEETS.
- 7) COPIES OF STATEMENTS FROM AIRCREW AND PASSENGERS (UNDERSTAND THESE ONBOARD BISCOE C/O PRATTIS)
- 8) PILOTS LICENCES (PRESUME AS PER 7).=

PIW/NB



AIR 17/5

~~7~~

MEMO
202 STA550
NO. 078

24.1.77



C.S.

(10)

FM STANLEY OFFICE
TO ROYAL AIR FORCE
INFO CASBERG

X/045/77. IF TIME, WINDS AND CONDITIONS ALLOW RECOVERY OF ITEMS FROM PAR FOLLOWING ARE WHAT WE SEE AS MOST IMPORTANT IN ORDER OF PRIORITY REMOVAL FROM AIRCRAFT. GROUP A SHOULD BE RETURNED OR (BETTER IF POSSIBLE) GROUP B PROVIDED THEY CAN BE ASSESSED AS SERVICEABLE TO BE HELD RATHER AS SPARES (UNSERVICEABLE BUT REPAIRABLE HIGH COST ITEMS SHOULD BE RETURNED AS A)

A) 1) ENGINES.

11) PROPELLERS

111) FROM COCKPIT, NAV INSTRUMENTS, RADIO/NAV SELECTOR BOXES.

112) FROM RADIO COMPARTMENT, ALL BLACK BOXES AND ASSOCIATED COMPONENTS ANTENNAE ETC, CYRO FLUX DETECTOR IN RH WING TIP (ACCESS PANEL UNDERNEATH), ANTENNA FOR ILS IN NOSE CONE.

113) FROM REAR FUSELAGE, RADIO ALTIMETER T/RX AND ANTENNA, DOPPLER UNIT FROM AFT BAGGAGE COMPARTMENT AND UNDER REAR FLOOR.

114) FROM U/CARRIAGE, NOSE OLEO AND STEERING ACTUATOR ASSY, SKI AND SKI COMPONENTS (CLATTER IF SERVICEABLE FOLLOW ENGINES IN PRIORITY)

B) 1) FROM ENGINE MAGNETS, FUSE BOTTLES, FUEL FLOW METER, FUEL EMERGENCY SHUT OFF VALVE

11) FROM COCKPIT, ENGINE INSTRUMENTS, HEATED WINDSCREENS (LENGTHY TO REMOVE BUT EXPENSIVE)

111) FROM REAR FUSELAGE, BATTERIES AND VOLTAGE REGS.

112) FUEL CELLS AND ASSOCIATED COMPONENTS (BOOST PUMPS ETC).

113) WHEELS

114) HYDRAULIC PUMP COMPLETE.

115) FROM CABIN ROOF, DELIVER TIMER, OVERVOLT RELAYS, HF ANTENNA TUNER.

PIN/1

NNNNN

ZCZC STA561
NR 101 R 251240Z JAN 77
FM BOTHERA POINT
TO CAMBRIDGE HQ
INFO BRANSFIELD (PIWS)

C.S.
(9)

R/0106/77
FOLLOWING FOR D.H., FROM INSPECTION BY CREW VP-FAO. MILBURN
RETURNING VP-FAP, TO COMMENCE STRIP DOWN, UNLESS OTHERWISE
INSTRUCTED.

BEGINS:
EXTENSIVE DAMAGE FROM CLOPING SULKHEAD STN 3 TO STN 40. UNDERSIDE
NOSE OLEO UP APPROX 9" INTO NOSE STRUCTURE.
COCKPIT FLOOR RAISED 4"-5" AT FRONT, CENTRE, EACH SIDE OF CONSOLE
PORT ENGINE WAGELLE STRUCTURE RIPPLED JUST FWD WING OUTSIDE SIDE.
AREA OF STN 54-60 MAIN UNDERCARRIAGE DENT UP FUSELAGE ABOUT 6"
FROM GROUND.

GREASE IN FUSELAGE BETWEEN STN 268.50 AND 321.50 ABOVE DOORS.
EXTENSIVE GREASING REAR FUSE FROM STN 322 TO STN 421. SEVERE
IN LOWER AREA REAR OF BAGGAGE COMPARTMENT DOOR. WHOLE FUSELAGE
APPEARS TWISTED IN THIS AREA.

DOPPLER AERIAL COVER FLAT.
APPEARS TO BE SLIGHT ANTI-NEURAL ON TAIL PLANE.
APPEARS TO BE DROOP ON STD WING OUTSIDE OF ENGINE. BOTH WINGS
RIPPLED, OUTSIDE OF ENGINES, REAR OF WING TIPS AND TOP OF PORT
AILERON.

PORT SIDE CENTRE FUSE STN 262.00 GREASED AT WING FAIRING
ATTACHMENT AREA.

PORT FLAP OUT OF ALIGNMENT. TOP RIPPLED.
PORT ENGINE PANEL, TOP, RIVETS HAVE MOVED.
REAR OF BOTH WINGS FAIRING OVER CONTROLS RIPPLED.
STD REAR EMERGENCY EXIT FRAME TWISTED.
STD ENGINE TOP COVER PANEL SHOWS SIGNS OF MOVEMENT AT RIVETS.
FUEL PUMP ACCESS PANELS BUCKLED WHICH INDICATES BOTTOM OF FUSELAGE
HIT GROUND ON IMPACT.

NO INSPECTION OF MAIN W/A ATTACHMENT POINTS MADE AT THIS TIME.

ENDS
WORNALD/AAC

THE SECRETARIAT

STANLEY

FALKLAND ISLANDS

2 March 1977

Ref: AIR/7/55

Mr J C Allen
c/o British Antarctic Survey

PERSONAL AND IN CONFIDENCE

Dear Sir,

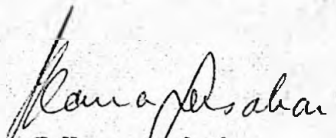
The Inspector's investigation into the accident to Twin Otter VP-FAP which occurred on 21 January 1977 in the British Antarctic Territory is nearing completion. Before this report can be submitted to the Governor, it is necessary for me to comply with Regulation 8(5) of the Falkland Islands Civil Aviation (Investigation of Accidents) Regulations 1959. A copy of this Regulation is provided as Attachment 1 to this letter.

I hereby give you, as a person involved in the accident, notice of the proposed findings and conclusions as to the circumstances and causes of this accident. These findings and conclusions are contained in a copy of the draft report which is provided as Attachment 2 to this letter. If you wish to take advantage of Regulation 8(5) you should make your representations in writing to me within 28 days. You are not, of course, obliged to make representations under the Regulation if you do not wish to do so.

Until the Governor has decided that the report on this accident is to be published, the contents of the attached draft are to be treated as confidential. Whilst there is no objection to the contents being shown in private to any legal expert or other adviser whom you may wish to consult, no part of the report may be made public or communicated to the press or the publishers of company house magazines or publications of any trade union or professional association.

You are requested to acknowledge the receipt of this letter as soon as possible using one of the two copies of a form of acknowledgement and reply which are provided at Attachment 3; the other copy is for your retention.

Yours faithfully,


B Kanagasabai

Inspector of Accidents.

The Secretariat

STANLEY

FALKLAND ISLANDS

Ref: AIR/7/55

2 March 1977

Dr R M Laws
Director
British Antarctic Survey
Maddingley Road
Cambridge CB3 0ET

PERSONAL AND IN CONFIDENCE

Dear Sir,

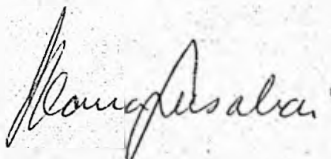
The Inspector's investigation into the accident to Twin Otter VP-FAP which occurred on 21 January 1977 in the British Antarctic Territory is nearing completion. Before the report can be submitted to the Governor, it is necessary for me to comply with Regulation 8(5) of the Falkland Islands Civil Aviation (Investigation of Accidents) Regulations 1959. A copy of this Regulation is provided as Attachment I to this letter.

I hereby give you as operator of the aircraft notice of the proposed findings and conclusions as to the circumstances and causes of this accident. These findings and conclusions are contained in a copy of the draft report which is provided as Attachment 2 to this letter. If you wish to take advantage of Regulation 8(5) you should make your representations in writing to me within 28 days. You are not, of course, obliged to make representations under the Regulation if you do not wish to do so.

Until the Governor has decided that the report on this accident is to be published, the contents of the attached draft are to be treated as confidential. Whilst there is no objection to the contents being shown in private to any legal expert or other adviser whom you may wish to consult, no part of the report may be made public or communicated to the press or the publishers of company house magazines or publications of any trade union or professional association.

You are requested to acknowledge the receipt of this letter as soon as possible using one of the two copies of a form of acknowledgement and reply which are provided at Attachment 3; the other copy is for your retention.

Yours faithfully,



B. Kanagasabai
Inspector of Accidents

The Secretariat

Stanley

Falkland Islands

Ref: AIR/7/55

2 March 1977

Mr P A Prattis
c/o British Antarctic Survey

PERSONAL AND IN CONFIDENCE

Dear Sir,

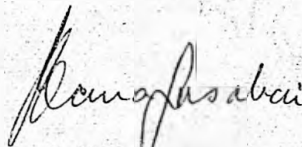
The Inspector's investigation into the accident to Twin Otter VP-FAP which occurred on 21 January 1977 in the British Antarctic Territory is nearing completion. Before the report can be submitted to the Governor, it is necessary for me to comply with Regulation 8(5) of the Falkland Islands Civil Aviation (Investigation of Accidents) Regulations 1959. A copy of this Regulation is provided as Attachment I to this letter.

I hereby give you, as a person involved in the accident, notice of the proposed findings and conclusions as to the circumstances and causes of this accident. These findings and conclusions are contained in a copy of the draft report which is provided as Attachment 2 to this letter. If you wish to take advantage of Regulation 8(5) you should make your representations in writing to me within 28 days. You are not, of course, obliged to make representations under the Regulation if you do not wish to do so.

Until the Governor has decided that the report on this accident is to be published, the contents of the attached draft are to be treated as confidential. Whilst there is no objection to the contents being shown in private to any legal expert or other adviser whom you may wish to consult, no part of the report may be made public or communicated to the press or the publishers of company house magazines or publications of any trade union or professional association.

You are requested to acknowledge the receipt of this letter as soon as possible using one of the two copies of a form of acknowledgement and reply which are provided at Attachment 3; the other copy is for your retention.

Yours faithfully,



B. Kanagasabai

Inspector of Accidents

ATTACHMENT 3

to letter ref AIR/7/55

dated 2 March 1977

To: Mr S Kanagasabai
Inspector of Accidents
The Secretariat
Stanley
Falkland Islands.

I acknowledge your letter of above date and reference in which, under Regulation 8(5) of the Falkland Islands Civil Aviation (Investigation of Accidents) Regulations 1959, I was notified by you, an Inspector of Accidents, of the findings and conclusions that you are proposing to include in your report.

I also acknowledge receipt of Attachment 1 to that letter containing the relevant Regulations, and Attachment 2 containing a copy of the draft report.

I note from your letter that I have a right to make representations in writing to the Inspector.

* (i) I wish to exercise the right open to me and I will write to you again setting out my representations within the 28 days prescribed in the Regulation.

* (ii) I do not wish to ~~exercise the right open to me to make~~ representations.

* Delete as appropriate.

Signature *Rh Laws*

Date 11 March 1977

Address British Antarctic Survey

..... Madingley Road

..... CAMBRIDGE CB3 0ET

United Kingdom

ATTACHMENT I

to letter ref AIR/7/55

dated 2 March 1977

RELEVANT EXTRACT FROM THE FALKLAND ISLANDS CIVIL AVIATION (INVESTIGATION OF ACCIDENTS) REGULATIONS, 1959

- 8 With respect to an Inspector's Investigation, the following provisions of this Regulation shall have effect:-
 - (5) Where it appears to the Inspector that any degree of responsibility for the accident may be attributed to any person, and if it appears to the Inspector to be practicable so to do, that person or, if he be deceased, his legal personal representatives shall be given notice that blame may be attributed to him and be permitted to make a statement or give evidence and to produce witnesses and to examine any witnesses from whose evidence it appears that he may be blameworthy;

to letter ref AIR/7/55

dated 2 March 1977

To: Mr S Kanagasabai
Inspector of Accidents
The Secretariat
Stanley
Falkland Islands.

I acknowledge your letter of above date and reference in which, under Regulation 8(5) of the Falkland Islands Civil Aviation (Investigation of Accidents) Regulations 1959, I was notified by you, an Inspector of Accidents, of the findings and conclusions that you are proposing to include in your report.

I also acknowledge receipt of Attachment 1 to that letter containing the relevant Regulations, and Attachment 2 containing a copy of the draft report.

I note from your letter that I have a right to make representations in writing to the Inspector.

* (i) I wish to exercise the right open to me and I will write to you again setting out my representations within the 28 days prescribed in the Regulation.

* (ii) I do not wish to exercise the right open to me to make representations.

* Delete as appropriate.

Signature *P Abratt*

Date *11th March 1977*

Address ... *18, PORTERS LANE,*

..... *EASTON-ON-THE-HILL,*

..... *STAMFORD KINGS*

ENGLAND

BRITISH ANTARCTIC SURVEY

DIRECTOR: DR. R. M. LAWS

MADINGLEY ROAD, CAMBRIDGE CB3 0ET

TELEPHONE: CAMBRIDGE (0223) 81188

TELEGRAMS: POLASURVEY CAMBRIDGE

AIR/7/55

11 March 1977

PERSONAL AND IN CONFIDENCE:

Dear Mr. Kanagasabai,

I am replying to your letter of 2 March relating to the accident to Twin Otter VP-FAP which occurred on 21 January 1977.

I have read the proposed findings and conclusions of the draft report and have the following comments to make:

1. Introduction

- (a) Allen was not co-pilot. He was a pilot in training. Our aircraft are fitted for single-pilot operation and there is no instrumentation in the co-pilot's seat.
- (c) The documents in question were brought north at the first opportunity and arrived in Stanley on 28 February aboard RRS John Biscoe. This was after the enquiry was completed and hence they were not submitted. They are being returned to the United Kingdom by John Biscoe.
- (d) Mr. Prattis does hold a medical clearance for 1976 and documentary proof of this can be made available.
- (e) There was a qualified meteorological forecaster at South Georgia who gave regular forecasts to the aircraft.

5. Safety Recommendations

- (a) We had no co-pilot and Allen had not been passed out on the Twin Otter.

/.....

(d) Seats are available and should have been fitted.

I enclose a copy of the form of acknowledgement and reply.

Yours sincerely,

R.M. Laws.
R.M. LAWS

S. Kanagasabai, Esq.,
Inspector of Accidents,
The Secretariat,
Port Stanley,
Falkland Islands,
South Atlantic

Encl:

S. Kanagasabai
Inspector of Accidents
The Secretariat
Stanley
Falkland Islands

18 March 1977

PERSONAL AND IN CONFIDENCE

Dear Dr Laws,

Thank you for your letter of 11 March 1977.

I will take note of the comments made in the letter under reference in submitting my final report to the Governor.

Yours sincerely,



S. Kanagasabai
Inspector of Accidents

Dr R M Laws
Director
BRITISH ANTARCTIC SURVEY
Madingley Road
CAMBRIDGE CB3 0ET

077

TO: STANLEY

20.1.77

1045Z

C.S.

(6)

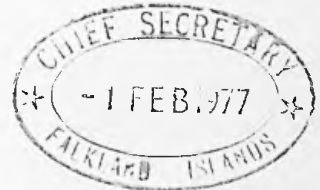
ANNEX 5

FM STANLEY OFFICE
 TO ROTHERA POINT
 INFO HIGHCOMA STANLEY
 MRS JOHN BISCOE (PRATTIS)
 CAMBRIDGE HQ

X/044/77. UNDER TERMS COLONIAL AIR NAVIGATION ORDER AN ENQUIRY MUST BE HELD BY BAT AUTHORITIES INTO THE LOSS OF FAP. THE HIGH COMMISSIONER WILL BE APPOINTING AN INSPECTOR AND THE ENQUIRY WILL BE HELD BEFORE THE END OF THE SEASON. CAN YOU PLEASE ENSURE THE FOLLOWING DOCUMENTS ARE FORWARDED C/O BAS OFFICE STANLEY EARLIEST OPPORTUNITY:

- 1) AIRCRAFT JOURNEY LOG.
- 2) ENGINE LOGS
- 3) PROPELLOR LOGS
- 4) CERTIFICATE OF AIRWORTHINESS (TOGETHER WITH CANADIAN DOT C.C.I.)
- 5) DEFECTS LOG
- 6) LIFED COMPONENT LOG OR RECORD SHEETS.
- 7) COPIES OF STATEMENTS FROM AIRCREW AND PASSENGERS (UNDERSTAND THESE ONBOARD BISCOE C/O PRATTIS)
- 8) PILOTS LICENCES (PRESUME AS PER 7).=

PIW/NB



REF: AIR/7/5

THE SECRETARIAT,

STANLEY, FALKLAND ISLANDS,

SOUTH ATLANTIC.

21 March 1977

It is requested that the number and date should be quoted.

To: His Excellency the Governor

Through The Chief Secretary

Your Excellency,

INVESTIGATION INTO THE ACCIDENT TO THE TWIN OTTER VP-FAP
IN THE BRITISH ANTARCTIC TERRITORY

Reference your letter of 1st February 1977 appointing me as Inspector for the purpose of carrying out an investigation into the causes and circumstances of the accident to the Twin Otter VP-FAP which occurred on 21st January 1977 in the British Antarctic Territory at latitude 7358 south 6840 west, I have the honour to report as follows:

1. INTRODUCTION

In accordance with the accepted practice of such an investigation and in keeping with the recommendations of Annex 13 (Aircraft Accident Investigation) of ICAO, the following procedures were adopted:-

- (a) A true and accurate record of the statements made and replies to questions put to the Pilot in Command of VP-FAP, Mr P A Prattis, and the co-pilot, Mr J C Allen, were obtained.
- (b) Records of the statements of any witnesses or other members of the party who were inside the aircraft at the time of the accident could not be recorded as, although a total of five persons were on board the aircraft at the time of the accident, they were not made available for the investigation.
- (c) Documents and records such as Maintenance Certificate, Engine Log Book, Defects Record Book, Propeller Log Book, etc were not made available for investigation, though a telegram was sent on 26.1.77 to BAS at Rothera Point asking for these documents to be sent. (Please see Annex (5)). But Dr R M Laws, the Director of British Antarctic Survey, by his letter of 11 March 77, informs me - quote "The documents in question were brought north at the first opportunity and arrived in Stanley on 28 February 1977 aboard RRS John Biscoe. This was after the enquiry was completed and hence they were not submitted. They are being returned to the United Kingdom by John Biscoe" - unquote.
- (d) Documents such as Pilot Licences, Type Endorsements, Flying Log Books, Medical Certificates, were called for inspection from the pilot and co-pilot (Messrs Prattis and Allen) and were found satisfactory; but the medical certificate of the pilot, Mr Prattis, was found endorsed as satisfactory only on 5.4.1973 (i.e. about three years ago). He, being an RAF service pilot, may not be bound by the regulations of the civil flying requirements. But Dr Laws, the Director of BAS,

/again by his

2.

again by his letter of 11 March 1977, informs me - quote "Mr Prattis does hold a medical clearance for 1976 and documentary proof of this can be made available" - unquote. Therefore we could accept his assurance without any reservations.

- (e) The actual weather conditions at the area or the site of the accident were also not made available for study, but the weather, as described by the pilot, co-pilot, and in the statement by "Mr Airey" which was sent by BAS (please see Annex 4), the weather was reported to be quite good, or very satisfactory.
- (f) I was not in a position to visit the scene of the accident and examine the wreckage because of the difficulty of communications and the remoteness of the accident area - although this visit is one of the requirements of the procedure of investigation.
- (g) I give below the summary of the final report in the format as recommended by Annex 13 of ICAO.

2. FACTUAL INFORMATION

- (a) The aircraft, a Twin Otter VP-FAP, was engaged on a flight from DE-ATLEY Island to the GOMEZ NUNATAK area, air-lifting the travelling unit complete with their scientific equipment.
- (b) The aircraft departed from DE-ATLEY Island at about 14.45 hrs on 21st January 1977 with Mr P A Prattis as Pilot in Command. On board the aircraft were also Mr Airey, who sat in the co-pilot's seat, Mr Milburn, the engineer, Mr Allen, the co-pilot, and Mr Landy.
- (c) The pilot flew after take-off east-west towards Gomez, and could see Gomez in the distance. He was flying at about 6,000 ft and observed cloud altostratus between 8,000 ft and 9,000 ft. When he was about 20 miles from Gomez the pilot said he passed into the shadow of high cloud and full cover beyond the edge. He reached Gomez at about a quarter to four, an hour after take-off.
- (d) On reaching Gomez he flew over a ridge between two rock outcrops about 500 ft above the plain. Altitude about 5,000 ft above sea level. He decided to land on a possible landing place which was on the north-west slope of this ridge. Visibility at this stage was found to be quite good, but the contrast was moderate to poor in the shadow of the clouds. He suspected the wind to be north-east 15 knots. (When operating over snow to judge the condition of the snow if you have good contrast you can see surface details clearly).
- (e) The pilot set up a pattern to come in and land straight up the slope. In starting to come in on the final approach, below the level of the ridge, he found the contrast considerably worse than it looked to him from above. The slope was more steep than it had

/appeared from above

3.

appeared from above. He decided to overshoot and discontinue the approach for a landing. He carried out a normal overshoot procedure including full power, but he found that he was not climbing fast enough to clear the steep slope.

- (f) As he approached the surface of the slope in the overshooting configuration he decided it would be better to hit the surface in a landing attitude still in full power, misjudged the height from the ground, the aircraft stalled with full power about 15 ft above the ground. He was unable to effect a stall recovery. The aircraft hit the ground on the main skis first, shortly followed by the nose ski, but almost completely in a flat attitude.

(g) Injuries to persons

Pilot, Mr Prattis	Received a blow on the chin which dazed him only temporarily
Co-pilot, Mr Allen	Thrown forward against Milburn and cut his lip
Mr Landy	No injury (according to preliminary report from BAS)
Mr Airey	Banged head on cabin roofing (according to preliminary report from BAS)
Mr Milburn	No injuries (according to preliminary report from BAS)

(h) Damage to aircraft

Unable to describe the damage to the aircraft as I did not have an opportunity to see the wreckage. The damage to the aircraft is given in the preliminary report by the Base Commander of the British Antarctic Base at Rothera Point.

(i) Personal Information

Pilot - Mr Peter Anderson Prattis:

- (1) Seconded for service from RAF to BAS
- (2) Has experience of flying from 1964
- (3) Possesses type ratings for seven types of aircraft
- (4) Has a total flying experience of 4090 hours
- (5) Holds a valid Instrument Rating last renewed on 18 August 1976 from Central Flying School Examination Wing

Co-pilot - Mr John Clive Allen:

- (1) Possesses a Canadian ATPL (Airline Transport Pilot's Licence) No. XDA-1410.
- (2) A valid Commercial Pilot Licence No. 120168 issued in UK by the CAA on 6 October 1976 with night rating.
- (3) Has a medical certificate issued by CAA in UK on 22 April 1976, valid for 12 months.
- (4) Has type ratings on eleven types of aircraft.
- (5) Has a total flying experience of 2413 hours.

4.

(j) Aircraft Information

Unable to comment on the airworthiness and maintenance of the aircraft, as no documents were available during investigation.

(k) Meteorological Information

No meteorological report or actual weather report at the area or site of the accident was made available for investigation.

However, it is evident from statements made by the pilot and co-pilot that the weather was reasonably good for visibility, with no precipitation or low cloud; but the contrast in snow conditions is reported by the pilot to have been poor.

3. ANALYSIS

In analysing the events that led to the accident the following facts are evident:

- (a) The pilot has experience in flying with the RAF from 1964, with a total flying hours of 4090 hrs.
- (b) Though the aircraft carried another pilot, the second pilot was not in the co-pilot seat and did not function as a co-pilot during this flight, as I am given to understand that the aircraft was fitted only for single pilot operation and no instrumentation in the co-pilot seat.
- (c) The weather, according to statements made by the pilot, co-pilot and Mr Airey -one of the passengers- was quite good except for the snow contrast.
- (d) The aircraft had no malfunctioning, according to the pilot, and was in good mechanical condition.
- (e) The pilot misjudged his height above surface on the approach to land (due to snow contrast, as he says) and was unable to recover from his stall which occurred at about 10-20 ft above ground, and thus crashed the aircraft on the slope.

4. CONCLUSIONS

The cause of the accident can be established as Pilot Error due to the following:-

- (a) Misjudgement of the angle of the slope on his first fly-over, on which slope he subsequently attempted a landing.
- (b) This may have been due to the poor white snow contrast.
- (c) His inability to do a proper overshoot when he realised that the ground on which he was attempting to effect a landing was a very steep uphill slope.
- (d) This may have been due to the aircraft being overloaded by about 1500 lbs above the normal approved weight.
- (e) His inability to recover the aircraft when it went into a stall at about 15-20 ft above the ground in his approach to land.

/Safety

5. SAFETY RECOMMENDATIONS(a) Overweight

It is not desirable to overload an aircraft. The Twin Otter was designed for its maximum best performance with its maximum all-up weight. Therefore its performance can naturally be impaired if it is overloaded. In this case the aircraft was overloaded by 1500 lb according to the statement of the Pilot in Command. When the pilot found that the ground he was approaching to land was very steep in the slope he decided to overshoot and went into a configuration of overshoot, but he could not climb fast enough to clear the slope. The pilot found the aircraft did not have its best climbing performance, probably because it was overweight by 1500 lbs. The aircraft could have climbed fast enough to clear the slope if it had not been overloaded.

(b) Safety Belts

In the case of this accident three passengers were sitting in the rear of the fuselage; one aft of emergency fuel tank, one aft of pilot bulkhead central in the doorway on a virtually empty manfood box, and the third was sitting over the port undercarriage on the pyramid tent. None of the three passengers were wearing seat or safety belts.

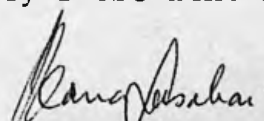
It was very lucky that the injuries to the passengers were very light in this case. But serious injuries or deaths could occur when, during a crash or accident to an aircraft, the passengers do not wear their seat belts or some kind of safety belt.

6. APPENDICES

- (1) The statement of the Pilot in Command, Mr P A Prattis of VP-FAP
- (2) The statement of co-pilot Mr J C Allen
- (3) The report of the Preliminary Court of Inquiry of BAS
- (4) Copy of an extract from Mr Airey's diary which could be considered as the statement of a witness
- (5) Copy of a telegram sent to BAS from Stanley requesting the necessary documents for the Inquiry
- (6) A letter dated 11 March 1977 from Dr R M Laws, Director of BAS making representations under Regulation 8 (5)
- (7) A letter from the pilot of VP-FAP informing that he does not wish to make any representations under Regulation 8 (5).

I have the honour to be,
Sir,
Your Excellency's obedient servant,

Encls.
m.


B. Kanagasabai
Airport Superintendent

Secretariat, Stanley
Thursday 17 February 1977

Name - Peter Andersen Prattis
Title - Pilot of VP-FAP

Statement made by Pilot of VP-FAP,
Mr P A Prattis

Inspector Could you tell me what happened, especially on the last lap of the flight, i.e. after take-off?

Mr FAP I'll take it from where we were loading the aircraft; we were moving a team which was designated 'O' (Oscar). They were working on De Atly Island, South of Alexander Island. They had finished their work and were being moved about 120 miles almost due East to Gomez. We loaded the second lot of equipment (we had already done one trip). This also included the two members of Oscar who were Mr Airey and Mr Landy, plus one vehicle Skidco, one sledge and a lot of general equipment. We departed from De Atly without incident.

Inspector At about what time?

Mr FAP I'm not quite sure, it was I think about half past three in the afternoon (Note: later corrected himself to estimate time about 2:45 pm)

Weather was clear and there was very little wind at De Atly Island. Conditions were good. We flew East-West towards Gomez and we could see it in the distance. About 20 miles from Gomez we passed into the shadow of high cloud. We were flying at approximately 6000 ft; cloud 8-9000 ft, alto stratus. Full cover beyond the edge. We reached Gomez at about a quarter to four, an hour after take-off. We had not previously landed at Gomez; we had landed and off-loaded the first load of equipment and freight about 20 miles due West on the same track but not on this place. The landing we were about to attempt was the first time on Gomez. It is a small hill with two rocky outcrops with a ridge in the middle, about 500 ft above the plain. Altitude about 5000ft above sea level. We flew over the top of the ridge between the two peaks with a clearance of about 500 ft. Circled to the left looking for a good landing site. Visibility at this stage was quite good. (When we are operating over snow to judge the condition of the snow if you have good contrast you can see surface detail clearly). Contrast was moderate to poor in the shadow of the clouds. I assessed there was a possible landing place on the NW slope of this ridge. The normal procedure when you

/are landing

are landing on a new site is you fly over it and look and check for crevasses and holes in the snow. If you think it's suitable you do a touch-and-go landing, just skimming the snow, leaving some ski tracks if you can, and then fly over again to inspect the area before you go in and land if all is OK.

I went in to do a touch-and-go landing. I set up a pattern to come in and land straight up the slope. In starting to come in on the final approach, below the level of the ridge, the contrast was considerably worse than it was looking from above. The slope was more steep than it had seemed from above. I decided to overshoot and discontinue the approach. Carried out the normal overshoot procedure, including full power. Found we were not climbing as quickly as the hill was which was rather disconcerting. As we approached the surface, still in the overshooting configuration, I decided it would be better to hit the surface in a landing attitude. Flared the aircraft into a landing attitude, still on full power, misjudged the height; the aircraft stalled, with full power, from about 15 ft. We hit the ground probably on the main ski first, shortly followed by the nose ski but almost completely flat attitude. I got banged on the chin, which dazed me for a second or two. When I recovered I found we were still on full power. I closed the throttles, shut down the engines and switched the power off.

Inspector When you found that this landing ground was ~~so~~ steep and you tried to overshoot and found you could not overshoot because of the characteristics of the landing ground you said you were going into a landing position.

Mr PAF About 10-15 seconds in the overshoot configuration the surface was certainly getting closer all the time so I assessed the rate of climb of the aircraft was not sufficient to clear the terrain, I decided to put aircraft into landing attitude for the impact.

Inspector What was the steepness of the ground on the angle of approach?

Mr PAF From the ground after the accident I discovered the hill had a steepness of about 1 in 8 or 1 in 10. Fairly steep.

Inspector Were you operating at full throttle?

Mr PAF Full throttle; about 20° flap.

Inspector What was the approach speed?

Mr PAF Normal approach speed, 70 knots. On impact we were probably about 50 knots, after it stalled.

Inspector Stalling occurred because you misjudged the height of the ground?

Mr PAF Normally you want to stall about an inch above the ground! I misjudged. We have a stalling warning device on the aircraft, and often do the last part of the approach with the help of this device.

/Inspector

Inspector This device was operating OK?

Mr PAF It was operating OK.

Inspector At what time did this happen?

Mr PAF About a quarter to four (?)

Inspector Was the sun bright?

Mr PAF No, it was overcast. The whole problem was contrast, which misled me to believe that the slope was much gentler. From above I estimated that the contrast was moderate but when I got into the landing run I saw it was poor.

Inspector I may be repeating myself, but you were landing there for the first time?

Mr PAF Yes, and the closest I had landed before was 20 miles to the west; on the plain, in sunlight and good contrast, there was no problem.

Inspector When you decided to go into landing attitude, how was your weight, was it distributed evenly?

Mr PAF The balance was normal, it was good. However the overall weight was in excess of the recommended maximum weight.

Inspector By how much?

Mr PAF About 1500 lb over.

Inspector Would that have affected your overshoot?

Mr PAF The effect of the weight would certainly reduce your rate of climb; by how much I would not like to say. I do not think that 1500 lb on our total of some 12500 lb would have a critical effect.

Inspector If the aircraft was less loaded would you have been able to get over the ridge?

Mr PAF I don't think so. If we had been totally empty yes, probably. But otherwise I don't think the difference would have been enough to clear the ridge. We in fact impacted I guess at about 100ft below the level of the ridge.

Inspector There was nothing moving around?

Mr PAF No, it was pretty solidly packed.

Inspector How was it when you crashed, did you come down nose first?

Mr PAF No, it was practically flat.

Inspector What happened afterwards?

Mr PAF I was dazed for a couple of seconds. I then found we were still motoring under full power of the engine. I switched off, then we got out.

Inspector Was anyone hurt in the process?

Mr PAF In the process of the accident I received a blow on

the chin, which dazed me temporarily. Mr Airey banged his head on the ceiling.

Inspector Were you strapped?

Mr RAE Yes, full body harness.

Inspector What about the others?

Mr RAE There are no seats or seat belts for the others. They were sitting on pieces of freight. The engineer, Mr Milburn, virtually remained static and received no injury. Mr Allen was thrown against Mr Milburn and perhaps hitting him caused ~~Milburn~~^{ALLEN} to put his teeth through his lip, so he was bleeding when we got out. The third in the cabin, Mr Landy, received no injury. So we had, Allen bit through his lip and was badly shaken, myself with a bang on the chin, and Airey on the head. No visible signs of damage.

Inspector Is it not the normal practice to strap people in?

Mr RAE There are not any seats; it is rather an odd operation in the Antarctic: the aircraft will just take the designated loads for space and the seats, you can imagine we are very short of available space and weight for freight, we fly without the seats and the passengers just hang on.

Inspector There could be serious consequences in an accident.

Mr Prattis agrees.

Inspector How long have you been in the RAF?

Mr RAE Thirteen years. A year in 1972, 6 months in 1976 off flying, on a ground tour; the rest of the time flying.

Inspector How long have you worked for BAS?

Mr RAE Since July. The first flight was made in early October 1976.

Inspector How many hours have you had on Twin Otters?

Mr RAE None previous to employment with BAS.

Inspector And since employment with BAS?

Mr RAE 250 odd (looks in log book) Well, we can say some 245.

Inspector ~~W~~ In your opinion it was a misjudgement of the contrast?

Mr RAE Yes, a misjudgement of the contrast causing me to misjudge the slope of terrain itself.

Inspector How were wet conditions? Was there rain?

Mr RAE No, there was no precipitation. Visibility was good, it is difficult to say about wind. Perhaps about 15 knots from the NE. From where we were you couldn't really tell.

/Inspector

5.

Inspector Were you trying to land into the wind?

Mr PAF I was landing from the wind about 30° from the nose to the port (about clock position 10 o'clock); was judging from the previous landing. After the accident the wind was in fact about "10 o'clock", probably about 20 knots. Perhaps it was the same on the approach: about 20 knots.

Inspector The reason which contributed to this was the misjudgement of the slope on the fly-over?

Mr PAF The final misjudgement was stalling the aircraft at 15 ft above ground. Having no contrast everything is white and it is difficult to get a judgement of height quite exactly.

Inspector What was the damage to the aircraft?

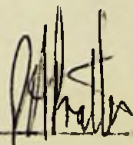
Mr PAF Severe undercarriage damage. The nose undercarriage was pushed up into the nose fuselage and it disturbed or destroyed the control runs which are in that position. The main undercarriage had "done the splits". The skis were also distorted and damaged.

There was no mechanical malfunction at any time. All damage resulted from the impact.

Inspector Is there anything else you would like to say?

Mr PAF I would like to put a rider in about operating overweight. The operation we do really demands either a different aircraft or that we operate the one that we have outside this limit. The aircraft we have operates very well and up until this time we had no problems operating overweight, bearing in mind that we had ideal climatic conditions. Although we operate the aircraft with more than the approved weight I do not consider it contributed to the accident.

I hereby certify that the above is a true and accurate record of my statement and replies to the Inspector on Thursday 17th February 1977.



P A Prattis

Secretariat, Stanley
Thursday 17 February 1977

Name - John Clive Allen
Title - Co-pilot/Observer of VP-FAP

Statement made by Co-Pilot of VP-FAP,
Mr J C Allen

Inspector How long have you been with SAS?

Mr JCA Since December 1976.

Inspector Were you recruited direct for flying duties?

Mr JCA Yes.

Inspector Had you had any experience with Twin Otters before?

Mr JCA I've had experience in the Arctic on similar type of aircraft, I was flying in Canada and have had experience with skis.

Inspector How much experience did you have in the Arctic on skis?

Mr JCA Four seasons.

Inspector Could you tell us in your own words what happened? From the last point of departure, and what you observed.

Mr JCA On the previous flight I had stayed behind at one of the tent camps while the plane took a load of fuel to Gomez. (About 4 hours). We loaded the aircraft and took off - normal take-off, routine flight - which would last about 45 minutes. I was sitting in the back of the aircraft, not in the co-pilot's seat. Usually we let one of the scientists into the front so that he can see the area and see where he is going; this time I was sitting in the back.

Inspector Where were you planning to make a landing?

Mr JCA I wasn't sure, as I was in the back all the time.

Inspector You were not familiar with the place?

Mr JCA No; things were rather difficult contrast-wise; it was moderate to poor contrast. The normal thing is to make an approach, look over the area, and then go back. They started the approach, making an over-flight to obtain conditions. I think what I observed was that it was a normal approach. It seemed like a normal approach; as I was not up front I don't know what actually happened.

Inspector Did you see the slope coming up?

Mr JCA No

Inspector You could not really observe what was going on?

Mr JCA No. I could not see the slope coming up. All I saw

/sa I was in the back

2.

as I was in the back was a normal approach, and then we stalled. I felt the plane started to shudder, and you know you were going to stall but I did not know how high we were.

Inspector You being a co-pilot, why were you not in the co-pilot's seat?

Mr JCA It's a rather difficult operation. Normally the aircraft is used as a one-pilot operation. I was sent down here to observe and learn about conditions, and to observe operations. I am going back to Canada to be checked out on the aircraft; for this part of the season I was only an observer (explains position with pilots and replacement).

Inspector Have you ever taken out a plane on your own here?

Mr JCA No. Perhaps the accident would not have happened if I had been in the co-pilot's seat. You could have observed more, and two pairs of eyes see better than one.

Inspector You received instructions where you could sit?

Mr JCA No, I was just down here to observe. The question has arisen before about why I was sitting in the back.

Inspector From where you were, how did the contrast look? The pilot said that before he started the approach it looked OK. How did it look to you?

Mr JCA From what I saw it was not poor, because I had the two hills on the side for reference - I would say it was moderate.

Inspector If you were operating the aircraft on your own would you have approached there?

Mr JCA Yes, I would have. I think it was the slope caused the problem. I didn't know the slope was there until we had landed.

Inspector Normally, when you have experience of flying, most of your reflexes function. When the aircraft was going to land, when he was starting his approach, did you feel that his position, speed, settings etc., all was OK?

Mr JCA Everything seemed quite normal.

Inspector Did the ground appear to you OK for landing?

Mr JCA It was very difficult from where I was sitting to see much, especially as I was on the port side over the undercarriage.

Inspector Weather conditions during landing were good?

Mr JCA Yes.

Inspector Visibility?

Mr JCA Yes, good.

Inspector Did it appear to you that you were landing into the wind?

Mr JCA I had no way of telling. If I had been sitting in the front I possibly could have known.

/Inspector

3.

Inspector Were you strapped in?

Mr JCA No.

Inspector Did you always take people without strapping?

Mr JCA I believe so. There are no seats provided, except for the pilot and co-pilot. The 'planes are operated as freighters only.

Inspector Is there anything else that you would like to add?

Mr JCA All I observed was that the power was put on for an overshoot and then we stalled. I feel I should have been in the front and then perhaps the accident could have been avoided.

Inspector When did you have your last medical?

Mr JCA In April 1976.

Inspector Do you think, as a pilot, that if the aircraft had not been overloaded beyond the specified weight there would have been less difficulty in overshooting?

Mr JCA I don't think that there could have been any less difficulty.

Inspector Where did the difficulty arise?

Mr JCA I think we could not have climbed the slope. A turbine takes time to wind up, we were too far behind on our power and so we stalled.

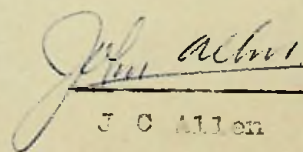
Inspector The accident was not then due to mal-functioning, or bad weather, only misjudgement?

Mr JCA Yes.

Inspector Anything else you would like to say?

Mr JCA I was going to put in a recommendation. I believe there should have been seats. The recommendation I was going to make is that seats should be provided; Bush-type seats.

I hereby certify that the above is a true and accurate record of my statement and replies to the Inspector on Thursday 17th February 1977.


J C Allen

PRELIMINARY COURT OF INQUIRY

RELATING TO ACCIDENT INVOLVING AIRCRAFT VP-FAP AT LATITUDE 7358S 6840W ON 21 JAN 1977.

INQUIRY CONDUCTED AT ROTHERA POINT, BRITISH ANTARCTIC TERRITORY ON 23 JAN 1977 AT 1630 LOCAL TIME.

PRESENT: S. WORMALD BASE COMMANDER ROTHERA POINT.
P. PRATTIS PILOT VP-FAP.
R. KILBURN ENGINEER VP-FAP.
J. ALLEN PILOT (TRAINING).

FOLLOWING REPORT INCLUDES EVENTS LEADING UP TO ACCIDENT, ACCIDENT, AND EVENTS FOLLOWING AND CLOSELY RELATED TO ACCIDENT AS ESTABLISHED BY WORMALD, BY DIRECT QUESTION AND ANSWER METHOD.

INTRODUCTION

SLEDGE OSCAR (LANDY AND AIREY) SITUATED AT DE-ATLEY ISLAND 7317S 7346W REQUIRING AIRLIFT TO GOMEZ NUNATAK AREA AT 7358S 6840W TOGETHER WITH THEIR COMPLETE TRAVELING UNIT AND SCIENTIFIC EQUIPMENT. IN ADDITION A DEPOT OF 4 X 45 GALLON DRUMS PETROL AND A QUANTITY OF GLACIOLOGICAL SAMPLING EQUIPMENT WAS REQUIRED TO BE DEPOTED AT OR NEAR GOMEZ NUNATAK BEFORE OR AFTER THE INSTALLATION OF THE UNIT.

ON THE 19TH JAN 1977 VP-FAP WITH CREW PRATTIS, ALLEN AND MILBURN FLEW FROM ROTHERA POINT TAKING A LOAD OF AVTUR TO FOSSIL BLUFF. REFUELING AT FOSSIL BLUFF THE AIRCRAFT CONTINUED TO DE-ATLEY ISLAND LANDING AT 2027 ZULU. THE ESSENTIAL CAMPING UNIT TOGETHER WITH AIREY AND LANDY WERE UPLIFTED AND THE AIRCRAFT TOOK OFF FOR GOMEZ NUNATAK AREA. WEATHER IN THE DEATLEY LANDING AREA AT THIS TIME IS RECORDED AS 7 OKTAS TOTAL COVER (2 OKTAS AT 3000, 5 OKTAS AT 6000 OR ABOVE, VISIBILITY 100 KILOMETERS PLUS).

ON REACHING AREA OF GOMEZ NUNATAK LOW CLOUD WAS FOUND TO BE OBSCURING THE AREA AND THE AIRCRAFT RETURNED TO DE-ATLEY ISLAND AND DISEMBARKED THE FREIGHT AND PERSONNEL BEFORE RETURNING TO ROTHERA POINT VIA FOSSIL BLUFF.

ON THE 20TH OF JAN 1977 LOW CLOUD OBSCURED ALL OF PENINSULA AND ALEXANDER ISLAND AREA AND NO FLYING TOOK PLACE.

ON THE 21ST OF JAN 1977 ROTHERA POINT WEATHER WAS 1 OKTAS TOTAL CLOUD ASSOCIATED WITH THE MOUNTAINS AND UNLIMITED VISIBILITY. SLEDGES ON ALEXANDER ISLAND REPORTED CLEAR WITH TRACES OF CIRRUS AND SLEDGE OSCAR ON DE-ATLEY ISLAND REPORTED TRACES OF CIRRUS, TRACE OF ALTO STRATUS AT 5000 AND 80 PLUS KILOMETERS MINIMUM VISIBILITY. SLEDGE ECHO AT 7209S 6450W ON THE PENINSULA WHICH WAS 140 MILES NORTH OF GOMEZ NUNATAK REPORTED 7 PLUS OKTAS OF ALTO STRATUS AT 5000 FEET AND 40 MILES VISIBILITY.

INITIAL FLIGHT

VP-FAP DEPARTED ROTHERA POINT AT 1223 ZULU WITH 4 X 45 GALLONS PETROL, 2 X 45 GALLONS AVTUR FREIGHT, 3 CREW, 2400 POUNDS FUEL PLUS 400 POUNDS OF RESERVE FUEL.

FLIGHT TIME TO FOSSIL BLUFF ONE HOUR 50 MINS WHERE THE 2 X 45 AVTUR WERE OFFLOADED AND 4 CASES EMPTY GLACIOLOGICAL SAMPLE BOXES WERE UPLIFTED.

WORMALD HAD REQUESTED RADIO THAT THE DRUMS AND SAMPLE BOXES BE TAKEN TO GOMEZ NUNATAK AREA FOR DEPOTING TO CHECK WEATHER CONDITIONS IN THE AREA BEFORE UPLIFTING SLEDGE OSCAR PERSONNEL. PRATTIS INFORMED HE WOULD UPLIFT SLEDGE OSCAR PERSONNEL BEFORE PROCEEDING TO GOMEZ. WORMALD STIPULATED THAT NO PERSONNEL SHOULD BE LEFT ALONE AT EITHER DE-ATLEY OR GOMEZ.

FLIGHT TIME TO SLEDGE OSCAR ON DE-ATLEY ISLAND WAS 1 HOUR 15 MINS LANDING AT DE-ATLEY ISLAND 1534 ZULU.

VP-FAP UPLIFTED A FURTHER 1 1/2 X 45 GALLONS PETROL TWO FURTHER GLACIOLOGICAL SAMPLE BOXES, A PYRAMID TENT, ONE NANSEN SLEDGE AND ONE RESCUE RUCSAC. LANDY WAS TAKEN ON-BOARD. REASON TO ENSURE HE KNEW SITUATION OF DEPOT AND THAT IT WAS IN CORRECT AREA. ALLEN WAS WITH AIREY AT DE-ATLEY. TAKE OFF TIME FROM DE-ATLEY WAS 1604 ZULU AND FLIGHT TIME GOMEZ NUNATAK AREA WAS 45 MINS. AT THIS TIME PRATTIS REACHED HIS PRE-DECIDED LIMIT FOR OUTBOUND FUEL AND LANDED THE DEPOT APPROXIMATELY 15 TO 20 MILES ON A BEARING 280 TRUE FROM GOMEZ NUNATAK. ALL WAS OFF LOADED WITH THE EXCEPTION OF THE RESCUE RUCSAC AND THE AIRCRAFT RETURNED TO FOSSIL BLUFF FOR FUELING PURPOSES, ARRIVING FOSSIL BLUFF AT 1824 ZULU WITH 250 POUNDS RESERVE FUEL REMAINING. VP-FAP RE-FUELED AND LEFT FOSSIL BLUFF AT 1905 ZULU WITH 2350 POUNDS OF FUEL PLUS 400 POUNDS RESERVE. AIRCRAFT LANDED AT DE-ATELY ISLAND 2020 ZULU.

SECOND FLIGHT.

THE AIRCRAFT WAS LOADED WITH SLEDGE OSCAR'S CAMPING UNIT AND ONE SKIDOO ETC (SEE DETAILED LIST) AND ALL PERSONNEL (TOTAL 5 PERSONS). AIRCRAFT TOOK OFF FROM DE-ATELY ISLAND AT 2046 ZULU GIVING E.T.A. GOMEZ NUNATAK AT 2140 ZULU.

AIRCRAFT LOADINGAIRCRAFT WITHOUT FREIGHT AND PASSENGERS.

BASIC AIRCRAFT (C.H. FIGURES)	WEIGHT 7918 LBS
3 CREW	540
3 PERSONAL SURVIVAL BAGS	120
1 PYRAMID TENT	100
1 SQUADCALL RADIO	30
1 POTS (COOKING) BOX	25
1 FOOD BOX	25
1 COMPLETE 20 MAN DAYS MANFOOD BOX	55
1 AIRCRAFT PACKUP SPARES BOX	20
1 AIRCRAFT SERVICING BOX	30
1 SET AIRCRAFT MANUALS	100
1 X 2 GALLONS SURVIVAL PARAFFIN	20
1 X MAN HAUL SURVIVAL SLEDGE	20
3 X PAIRS SKIS	30
1 X TOOL BOX	60
12 QTS OIL	30
1 GALLON HYDRAULIC FLUID	10
1 X AIRCRAFT RESCUE RUCSAC	40
1 X MEDICAL BOX	20
1 X SQUADCAL RADIO (SET ONLY FOR UNITS)	20
2 X SKIDOO LOADING RAMPS	40

TOTAL 9253 LBS

FUEL ON BOARD

FUEL ON BOARD AT FOSSIL BLUFF 2750 LBS
 FLIGHT TIME FOSSIL BLUFF-
 DE-ATLEY = 1 HR 15 MIN
 CONSUMPTION = 550 LBS PER HR
 FUEL USED 690 LBS

TOTAL REMAINING 2060 LBS
 AIRCRAFT (AS LISTED) 9253 LBS

AIRCRAFT ALL UP WEIGHT (UNLOADED) 11313 LBS (AT DE-ATLEY TAKE OFF)

DE HAVILAND OPERATING FIGURES.

AIRCRAFT ALL UP WEIGHT (TAKE OFF) = 12500 LBS MAXIMUM
 AIRCRAFT ALL UP WEIGHT (LANDING) = 12300 LBS

FREIGHT LOADED AT DE-ATLEY ISLAND.

2 PASSENGERS CAFFEY AND LANDYD	WEIGHT 360 LBS
1 X SKIDOO	650
1 X NANSEN SLEDGE	120
2 X PERSONAL SURVIVAL BAGS	100
1 X PYRAMID TENT	100
10 X 4 1/2 GALLONS SKIDOO FUEL	500
4 X 4 1/2 PARAFFIN	200
4 X 20 DAY MANFOOD	225
1 X SKIDOO SPARES BOX	25
1 X SKIDOO'S TOOL BOX	30
1 X UNIT SPARES BOX	40
1 X POTS BOX (COOKING)	40
1 X FOOD BOX	50
1 X TENT BOX	25
1 X SQUADCAL RADIO	30
1 X PERSONAL BOX	15
1 X MEDICAL BOX	20
2 X SPARE EMERGENCY CLOTHING BAGS	50
2 X RESCUE RUCSAC'S	80
1 X 2 GALLON PARAFFIN	20
SKI, TOW ROPES ETC	100
2 X SLEDGE WHEELS	30
1 X SURVIVAL TENT	20

TOTAL FREIGHT 2830 LBS *2*

TAKE OFF WEIGHT FROM DE-ATLEY ISLAND

11313 PLUS 2830 = 14143 LBS

LANDING WEIGHT AT GOMEZ

FLYING TIME 55 MINS X 550 LBS PER HR = 520 LBS
 LANDING WEIGHT AT GOMEZ 13623 LBS

=====

THIRD FLIGHT

ALL PERSONNEL EXCEPT PRATTIS IN REAR OF FUSELAGE FOR TAKE OFF FROM DE-ATLEY ISLAND. THEREAFTER AIREY SAT IN CO-PILOTS SEAT. PILOT STATED THIS USUAL PRACTISE IF SCIENTIST OR G.A. REQUIRES A LANDING AT A PARTICULAR NUNATAK, HAS AIR PHOTOGRAPHS FOR REFERENCE ETC, AS WITHNO AUXILARY HEADSET IN CABIN IT IS OTHER WISE DIFFICULT TO COMMUNICATE WITH PILOT.

MILBURN WAS SEATED AFT OF EMERGENCY FUEL TANK ON, PORT SIDE ON A MANFOOD BOX. LANDY WAS SEATED AFT OF PILOTS BULKHEAD CENTRAL IN DOOR WAY ON AN VITUALLY EMPTY MANFOOD BOX. ALLEN WAS SEATED AFT OF MILBURN OVER THE PORT UNDER-CARRIAGE ON THE PYRAMID TENT. PRATTIS AND AIREY BOTH WERE IN FULL COCKPIT HARNESS. PILOT STATED THAT ON APPROACHING GOMEZ NUNATAK SUSPECTED WIND TO BE NORTH EAST 15 KNOTS AS THAT HAD BEEN THE WIND WHEN LAYING FIRST DEPOT, BUT COULD OBVIOUSLY NOT CONFIRM THIS.

T

STATEMENTS.

THAT OF PILOT, PRATTIS AT APPENDIX 1.

THAT OF AIREY, IN CO-PILOTS SEAT, IS A DIRECT EXTRACT FROM HIS DIARY AND IS UN-SIGNED AND AT APPENDIX 2.

NOTES

PILOT STATED SETTINGS WERE NORMAL FOR "TOUCH AND GO" IE 20 DEGREES FLAP, PROPS FULL FORWARD, POWER AS REQUIRED.

INJURIES. AIREY BANGED HEAD ON CABIN ROOF, PRATTIS AS IN STATEMENT, MILBURN NIL, ALLEN THROWN FORWARD AGAINST MILBURN AND CUT LIP SUSTAINED TOGETHER WITH BRUISED SHOULDER, LANDY NO INJURIES ALTHOUGH THROWN ABOUT IN CABIN.

SKIDOO MUST HAVE LIFTED SLIGHTLY ON IMPACT, THEN DROPPED AND SLIPPED SIDWAYS AS HAD PUSHED INTO WOODEN PROTECTIVE BOX AROUND AIRCRAFT PYRAMID TENT, OTHERWISE ALL CARGO REMAINED FIRMLY STRAPPED.

DAMAGE TO AIRCRAFT

THIS MUST BE EMPHASISED AS BEING COMPILED AFTER A CURSORY INSPECTION BY MILBURN SHORTLY AFTER THE ACCIDENT, WHILE STILL IN A STATE OF SHOCK.

TAIL FUSELAGE

BENT DOWN AND TO PORT, SHOWING CREASE AT MIDWAY BETWEEN CARGO DOOR AND TAIL UNIT.

NOSE OLEO

SHEARED FROM MOUNTING POINT, DISTORTING FUSELAGE AND RADIO TRAY AREA, AND LIFTING COCKPIT FLOOR BY 4-5 INCHES.

NOSE SKI

PORT TAIL OF SKI CURLED UPWARDS DUE TO OLEO MOVING FORWARD AND PULLING ON TRIM CABLE.

MAIN UNDERCARRIAGE

LEGS COMPLETELY SPLAYED GIVING ONLY 10 INCHES GROUND TO BELLY. ALL FAIRING S BROKEN. COMPRESSION BLOCKS AND SEPARATOR PLATES ALMOST CERTAINLY SHEARED.

ALL SKIS BADLY DISTORTED AND BUCKLED, IRREPAIRABLE.

PORT ENGINE MOUNTING

CREASED, INDICATES ENGINE SPRUNG MOUNTINGS.

CONTROLS

ALL SEIZED UNDER COCKPIT FLOOR.

PORT FLAP

DAMAGED CAUSE UNKNOWN, REPAIRABLE.

MAIN FUSELAGE

TWISTED. REAR EMERGENCY DOOR HAS 1 INCH TO 1 1/2 INCH GAP AT REAR BOTTOM. SIGNS OF BUCKLING AROUND DOOR AREAS. REAR LUGGAGE DOOR, ONE HINGE BROKEN, HANDLE LOCKING PIN SHEARED BUT OTHERWISE UNDISTORTED.

HEAVY DISTORTION AND RIPPLING OF PANELS WHICH COVER FUEL GALLERY, INDICATING AIRCRAFT TWISTED.

EMERGENCY FUEL TANK

SHEARED ON MOUNTING POINTS AND LEGS BUCKLED.

A FURTHER DAMAGE REPORT AND ON SITE PHOTOGRAPHS WILL BE SUPPLIED BY CREW VP-FAO .

APPENDIX 1

STATEMENT BY PILOT OF VP-FAP.

BEGINS " ON APPROACHING GOMEZ NUNATAK FROM THE WEST WE CAME INTO

THE SHADOW OF SOME A CU WHICH ADVERSELY AFFECTED THE CONTRAST. CONTINUED TO GOMEZ AND FLEW LOW OVER THE RIDGE BETWEEN THE TWO ROCK OUT CROPS AND CONTRAST LOOKING DOWN APPEARED MOD-POOR AND THE SLOPE UP TO THE RIDGE FROM THE WEST APPEARED GENTLE WITH SHALLOW SUSTRUGI POSSIBLY SUITABLE FOR LANDING. I CIRCLED THE NUNATAK AND DESCENDED TO THE NORTHE AND WEST AND SET UP FOR A PRECAUTIONARY LANDING AND "THOUGH AND GO." ONCE I STARTED MY FINAL APPROACH AND DROPPED BELOW THE LEVEL OF THE RIDGE THE CONTRAST DETERIORATED RAPIDLY AND THE SLOPE APPEARED TO BE A LOT STEEPER THAN ORIGINALLY ASSESSED. I APPLIED FULL POWER AND COMMENCED OVERSHOOT BUT THE SURFACE WAS CLIMBING FASTER THAN WE WERE. AS I JUDGED WE WERE CLOSE TO THE GROUND I DECIDED TO CUSHION THE CONTACT BY FLARING INTO THE LANDING ATTITUDE. I MUST HAVE MISJUDGED OUR HT ABOVE SURFACE AS A/C STALLED AND DROPPED ONTO SLOPE FROM ABOUT 10-20 FEET. I WAS UNABLE TO EFFECT A STALL RECOVERY IN TIME. I RECEIVED A BLOW ON THE CHIN AND A SECOND LATER, WHEN I HAD RECOVERED, (STILL HAD FULL POWER ON AND MOVING UP SLOPE) I SHUT DOWN ENGINES AND SWITCHED OFF FUEL AND ELECTRICS.

I MAKE NO EXCUSES. I MADE THREE ERRORS OF JUDGEMENT CONCERNING: A) CONDITION OF SLOPE ON FIRST FLY OVER.
B) PROXIMITY OF GROUND ON OVERSHOOT.
C. DECISION TO FLARE INTO LANDING ATTITUDE.

THIS RESULTED IN THE A/C STRIKING THE SLOPE IN A NON FLYING, SEMI CONTROLLED CONFIGURATION INFLECTING MAJOR DAMAGE TO A/C AND ENDANGERING THE LIVES OF PASSENGERS AND CREW. 100% PILOT ERROR. AM THANKFUL TO HAVE ONLY A VERY EXPENSIVE MACHINE ON MY CONSCIENCE FOR WHICH I APOLOGISE.

SIGNED.....  P. PRATTIS PILOT, VP-FAP

WITNESSED.....  S WORMALD

24 JAN 1977.

EXTRACT FROM AIREY'S DIARY, VERBATIM.

.....
 NICE SUNNY DAY AT DE ATLEY. FIRST FLIGHT IN BROUGHT FUEL SO WE ADDED A BIT MORE CARGO 1 NANSEN AND SOME SAMPLE BOXES WHICH WERE FLOWN SHORT OF GOMEZ DUE TO AIRCRAFT FUEL, MEANWHILE JOHN AND I SPENT A FEW HOURS ON DE ATLEY MAKING BREWS AS MIKE LANDY WENT WITH PETE AND BOB TO DEPOT THIS LOAD, ABOUT 1710 PETE CAME INTO DE-ATLEY VIA FOSSIL (FOR RE FUEL) AND PICKED UP OUR MAIN CAMPING UNIT AND HEADED FOR GOMEZ. AS WE APPROACHED GOMEZ WE PASSED OVER THE FIRST FLIGHT PETROL DEPOT AND SHORTLY AFTER WENT UNDER THE CLOUD EDGE-WE WERE FLYING AT 6000 FEET AND CLOUD BASE WAS 5-9000 FEET (A UNIFORM GREY ALT CU,) CONTRAST WAS NOT GOOD, BUT NUNATAKS AND SOME SURFACE FEATURES (CREVASSE AND SNOW DOME COULD BE SEEN-GOMEZ APPEARED AS TWO SEPERATE PEAKS WITH A WIDE COL INBETWEEN WE FLEW OVER THE (COL) I DID NOT MAKE OUT MUCH AS THE PLANE WAS IN A LEFT BANK WE ROUNDED THE MAIN ROCK PEAK NOTING WIND SCOOP AND MAIN PEAK AND APPROACHED LANDING SPOT, I QUERIED PETE WETHER IT WAS A RIDGE OR A COL AND AT SAME MOMENT REALISED IT WAS A FAIRLY STEEP SLOPE AND PROBABLY A RIDGE, ABOUT 5 SECS LATER PETE STARTED TO PULL OUT BUT WE STARTED TO STALL IMMEDIATELY WE HELD THE ANGLE OF THE SLOPE FOR ABOUT 2 SECS TO LATE TO PEEL LEFT OR RIGHT AND CRASHED UNDER CARRAIGE FIRST THE SLOPE WAS SO STEEP THAT WE DIDNT BOONCE AFTER FIRST HIT BUT PLOUGHED UP IT ON REMAINS OF SKIS AND REAR UNDER BELLY (THIS WAS MY IMPRESSION AT TIME BUT AS I WAS IMPRESSED IN THE ROOF I WERE NOT REALLY LOOKING). WE CUT ENGINES AND FUEL AND DIVED OUT, I SPRINTED TO REAR DOOR BUT BOB ALREADY HAD KICKED IT OPEN AND THE THREE PILED OUT, JOHN WITH A BLEEDING LIP AND A SORE CHEST, THE AIRCRAFT LOOKED IMMEDIATELY A RIGHT OFF, I ASKED THE FOUR TO DIG PLATFORMS FOR THE PYRAMIDS AND START MAKING CAMP, THEN ROT ON THE RADIO TO STEVE, THE TIME OF WRITING THIS IS 2135 (ABOUT 2 HOURS OR SO AFTER I ESTIMATED) WE SPOKE TO ROTHERA AFTER INITIAL SKED AT ABOUT 2030-I SENT CRYPTIC MESSAGE (CSO) LOTS OF HUSKYS AND A BOTTLE OF RUM) I HOPE THEY UNDERSTOOD.

JOHN IS OBVIOUSLY HURT AND SOME WHAT SHAKEN BUT I CANNOT TELL HOW BAD INTERNALLY-

PETE HAS DAMAGED HIS JAW AND TWISTED HIS HEAD.

BOB APPEARS OK.

MIKE APPEARS OK BUT SCALDED HIM SELF ON CAMP SET UP BREW I HAVE SORE HEAD FROM HITTING COCKPIT ROOF AND SORE BACK FROM RETURN TRIP FROM ROOF.

ENDS

6.

THE FOREGOING 5 PAGES AND APPENDICES 1 AND 2 CONSTITUTE A FULL AND ACCURATE REPORT OF THE ACCIDENT INVOLVING AIRCRAFT VP-FAP AS DETERMINED AT THE INQUIRY.

SIGNED

S. Wormald
.....

S WORMALD

P. Prattis
.....

P PRATTIS (WITNESS)

R. Milburn
.....

R MILBURN (WITNESS)

J. Allen
.....

J ALLEN (WITNESS)

24 JANUARY 1977.

AIR/7/55

28 March 1977

B Kanagasabai Esq
Airport Superintendent
Secretariat
STANLEY

Thank you for the report which you have submitted to me as the result of your investigation into the Twin Otter aircraft accident in the British Antarctic Territory. I must commend you for the clarity of your findings in a difficult enquiry, and for the helpful promptness with which you undertook the task of Inspector.

I have decided that the matter does not require publication of the report, but I have sent a copy to the Director of the British Antarctic Survey, as operator, drawing attention to your conclusions and recommendations.

J R W Parker

AIR/7/5

28 March 1977

Dr R M Laws
Director
British Antarctic Survey
Madingley Road
CAMBRIDGE CB3 0ET

Dear Sir,

I enclose a copy of the report submitted to me by the Inspector, Mr B Kanagasabai, who I appointed, in exercise of the powers conferred on me by Regulation 7 of the Civil Aviation Act Regulations No 3 of 1959, to investigate the causes and the circumstances of the accident to the Twin Otter aircraft, VP-VAP, in the British Antarctic Territory on 21 January 1977.

In exercise of the discretion allowed me by Regulation 9, I do not intend to publish the report. You will, however, wish to note the Inspector's conclusions and recommendations, so that they may be taken into account when instructions are drawn up to control the operation of aircraft employed in connexion with the work of the Survey.

Finally, I would like to express my gratification that the accident did not result in any more serious hurt or injury to the personnel concerned, and to say that this happy result was no doubt due to the resourcefulness of the pilot in promptly taking appropriate emergency action once he had realised the consequences of his initial error in misjudging the suitability of the landing site under difficult conditions, and after what seems to have been a long and arduous day's flying.

Yours faithfully,

J R W Parker

AIR/7/5

6 April 1977

Dr R M Laws
Director
British Antarctic Survey
Madingley Road
CAMBRIDGE CB3 0ET

Sir,

I enclose a copy of the report submitted to me by the Inspector, Mr B Kanagasabai, whom I appointed, under the powers conferred on me by Regulation 7 of the Civil Aviation Act Regulations No 3 of 1959, to investigate the causes and the circumstances of the accident to the Twin Otter aircraft, VP-FAP, in the British Antarctic Territory on 21 January 1977.

In exercise of the discretion allowed me by Regulation 9, I do not intend to publish the report. However, I am sure you will wish to take the Inspector's conclusions and recommendations into account when future instructions are drawn up to control the operation of aircraft employed in connexion with the work of the Survey.

Finally, I would like to express my gratification that the accident did not result in any more serious hurt or injury to the personnel concerned, and to say that this happy result was no doubt due to the resourcefulness of the pilot in promptly taking appropriate emergency action once he had realised the consequences of his initial error in misjudging the suitability of the landing site, under difficult conditions, and after what seems to have been a long and arduous day's flying.

I am, Sir,
Your obedient servant,

J R W Parker
High Commissioner for the
British Antarctic Territory

2 cc of report (1 with and 1 without encs) sent to Dr Laws.



BRITISH ANTARCTIC SURVEY

DIRECTOR: DR. R. M. LAWS

MADINGLEY ROAD, CAMBRIDGE CB3 0ET

TELEPHONE: CAMBRIDGE (0223) 61188
TELEGRAMS: POLASURVEY CAMBRIDGE

1) H.E.
2) CS
Mr. Kanagasabai
should see.
H.E./C.S.
Seen
Thanks
R.M.L.
APS.

CONFIDENTIAL

Your Ref: AIR/7/5
Our Ref: 19/290/04



18 April 1977

Dear Sir,

I write to acknowledge receipt of the report prepared by Mr. B. Kanagasabai on the circumstances and causes of the accident to Twin Otter aircraft VP-FAP in the British Antarctic Territory on 21 January 1977.

I confirm that the Inspector's conclusions and recommendations are being taken into account in the preparation of instructions concerning the control and operation of aircraft flown by the Survey and would like to offer my thanks for the kind and considerate way you and your staff handled this difficult problem.

Yours faithfully,

R.M. Laws

R. M. Laws

J. R. W. Parker, Esq.,
High Commissioner for the British Antarctic Territory,
Government House,
Stanley,
Falkland Islands,
South Atlantic.

ZCZC STA711

C/1450/77

ROUTINE

1430Z

2/6/77

FM CAMBRIDGE HQ
TO STANLEY

19/290/04. FOR CHIEF SECRETARY /DIRECTOR.

REF REPORT AIR-7-5 DATED 21 MARCH 77 DEALING WITH LOSS TWIN OTTER.

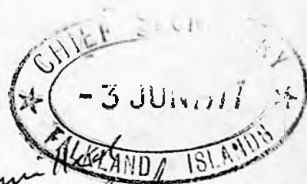
ALTHOUGH THIS NOT PUBLISHED - LETTER HIGH COMMA/DR LAWS
DATED 6 APRIL 77 - WE WOULD BE MOST GRATEFUL IF WE COULD USE REPORT
OR MAKE EXTRACTS FROM FOR USE IN DISCUSSIONS WITH AIRFRAME/ENGINE
MANUFACTURERS AND CAA TO DETERMINE G FORCES SUFFERED BY AIRCRAFT
DURING ACCIDENT.

/AM

AIR/7/5

APS
Speak soon pl.
S 6/6.

C.S.
Draft submitted
for approval.
8/6.



NNNNK

ZCZC 314

NR. 010

R

9.6.77

1450Z

AIRTEL

FM STANLEY OFFICE
TO CAMBRIDGE HQ

X/219/77. FOR DIRECTOR FROM CHIEF SECRETARY.

REUR C/1450/77. D

TWIN OTTER ACCIDENT REPORT. NO OBJECTION TO USE REPORT
OR MAKE EXTRACTS FROM FOR USE IN DISCUSSIONS WITH
MANUFACTURERS.

ENDS

-/MB