Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

FILE DOSSIER 5002-Ø60102 VOLUME

DEPARTMENT MINISTERE Transport

CONFIDENTIAL

SUBJECT SUJET Accident involving DH-83C, C-FDJB which occurred on September 5, 1976 at Water Front CNE, Lake Ontario.

Aircraft struck the water in a steep nose down right wing low attitude. ~~Investigation by mail.~~

FILE DOSSIER 5002-Ø60102 VOLUME

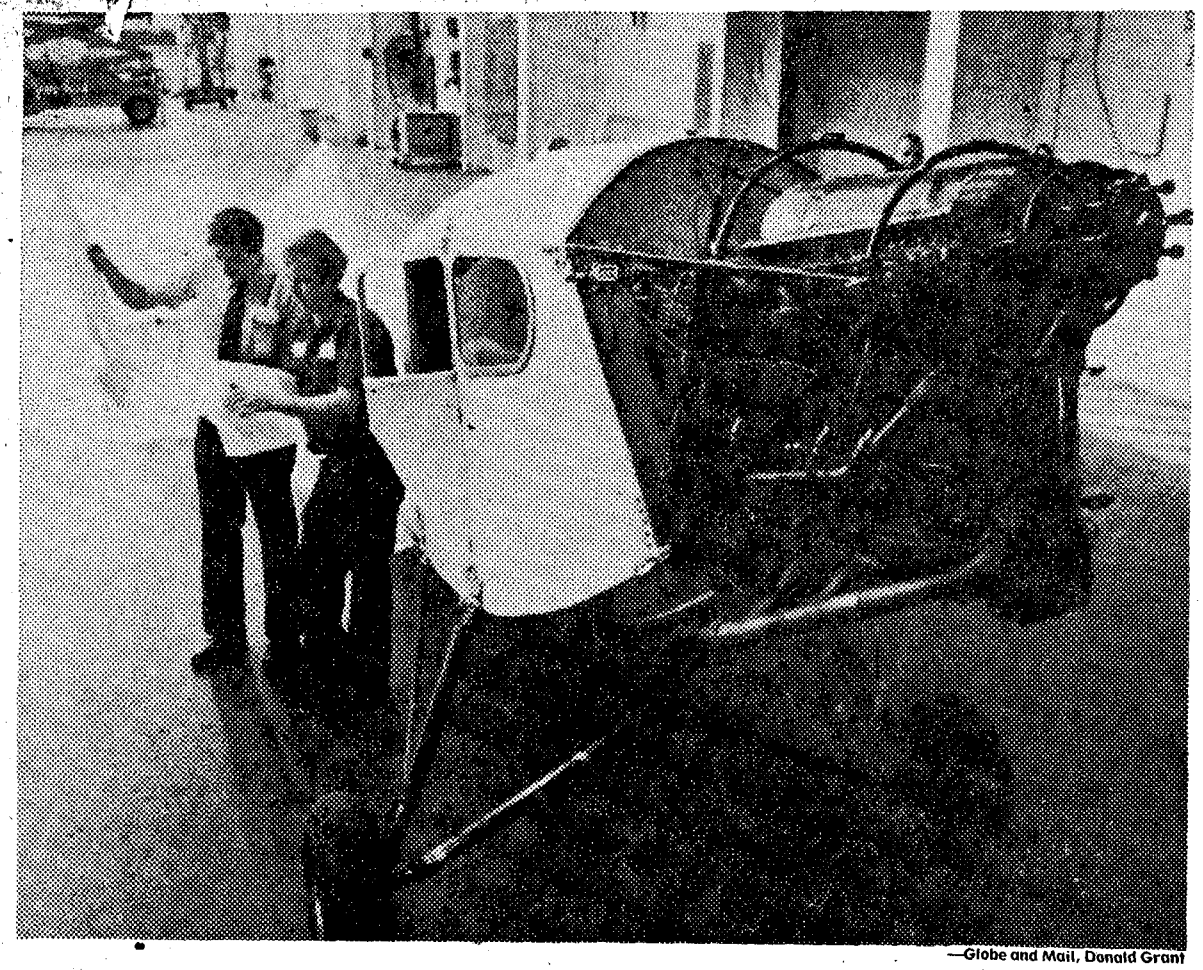
SUBJECT SUJET DeHavilland DH-83C, C- F D J B

| REFERRED TO REMIS À | REMARKS REMARQUES | INITIALS INITIALES | DATE | P.A. DATE CLASSER | INITIALS INITIALES | B.F. DATE REPORTER |
|---|---|---|---|---|---|---|
| OCA1 | 1568 | | 12/9/76 | | | |
| OCA1 | 1580 | | 15/9/76 | | | |
| OCA1 | 1581 | | 15/9/76 | | | |
| OCA1 | 2173 | | 19/9/77 | | | |

7530-21-849-6662 C.G.S.B. 6-GP-39Pa

Document disclosed under the Access to Information Act
Document divulgué en vertu de la Loi sur l'accès à l'information





—Globe and Mail, Donald Grant

Andy Obergfell, left, and Ken Parr look over plans as they piece together an original Fox Moth.

# Pioneering biplane to fly again

By DONALD GRANT

Thirty-two years ago Max Ward paid $10,500 for his first aircraft, a small wooden biplane known as a Fox Moth.

This week a similar plane will roll out of a huge hangar at Toronto International Airport, having cost the veteran pilot and airline president more than $50,000.

But to Max Ward the Fox Moth, this one painted silver with red trim, means more than dollars and cents.

•

It represents his beginning — and to some extent Canada's — in the airline business as well as hours of flying in the desolate Yellowknife area following the Second World War.

The Wardair president's plane will be only the 147th Fox Moth ever built and the first to roll out of a carpentry shop. All the others of the type — a modified version of the better-known Tiger Moth, with a bigger fuselage and three passenger seats — were produced by de Havilland in Britain and Canada.

Wardair employees have been piecing their craft together for nearly 18 months, using original plans and some parts salvaged from factory-built Fox Moths.

Some of the parts came from a Wardair-owned Fox Moth that crashed into Lake Ontario during the 1976 CNE air show. Garth Martin, the pilot and a Wardair 747 captain, scrambled from the cockpit while George Benedik was pulled out unconscious by harbor policemen who dived under three times to rescue him.

It was no easy task to find parts to put together a replacement for the wrecked plane. But the recuperating Mr. Martin found two Fox Moths in England (one Canadian-built), another in Australia and one in the United States on which some restoration had been done. He settled for the one at Newburyport, Mass., which bore serial number 7 and wooden wings dated Nov. 7, 1942.

Wardair general foreman Andy Obergfell and employees Ken Allan and Ken Parr were assigned to produce an airworthy plane.

"The fuselage was beyond anything," said Mr. Parr, pointing at the old spruce hulk now hanging in the carpentry shop. "We wanted it strictly as a pattern."

A new fuselage was painstakingly molded of spruce, then covered with nylon and painted silver.

"The wings we could use. But beyond that the rest was useless. The engine has zero time because it was reconditoned. But it's old . . . at least 30 years old."

•

Between the plane from the United States and the one that crashed in 1976, Mr. Parr said, "we've come up with an aircraft."

"It couldn't be closer to an original," he said proudly.

After the latest Fox Moth is tested for airworthiness, Captain Martin said, he'd like a flip in it. "Oh, I'll try it. There's no problem there," he said with a laugh, adding that Mr. Benedik, who crashed with him in 1976, will go along for the ride.

Document disclosed under the Access to Information Act
Document divulgué en vertu de la Loi sur l'accès à l'information

Government of Canada / Gouvernement du Canada

**MEMORANDUM** **NOTE DE SERVICE**

RECEIVED
FEB 21 1978
AIRCRAFT ACCIDENT INVESTIGATION ONTARIO REGION

PCA - Vancouver
WCA - Edmonton
CCA - Winnipeg
OCA - Toronto
QCA - Montreal
ACA - Moncton

ASA-2
To make good file
ASA
3/2/78

DGCA/DDG - Ottawa
K1A 0N8

SECURITY - CLASSIFICATION - DE SÉCURITÉ

OUR FILE - N/RÉFÉRENCE
6600-8-0 (LICA)

YOUR FILE - V/RÉFÉRENCE
5002-Ø60102

DATE
January 27, 1978

SUBJECT / OBJET
Operation of Vintage/Heritage Aircraft at Air Shows

Two recent major accidents, with serious and fatal injuries, occurred at a large international air show in 1976 and 1977. Investigation of these accidents reveals a commonality of contributing factors in the flight of these "vintage" or "heritage" aircraft. The accident in 1976 involved a Fox Moth aircraft and that in 1977 a Fairey Firefly. Both aircraft were being flown by pilots with high total flight time experience. Operation of the aircraft in semi-acrobatic manoeuvres, i.e. steep turns or wing-overs was followed by a loss of control and subsequent crash. Further investigation indicated that neither of the pilots had extensive experience on the aircraft type, nor recent acrobatic competency.

After review of these accidents by Headquarters Branches (DLI/DAS), it has been concluded that incidents of this nature can be reduced if adequate pilot competency and proficiency requirements on type are applied. It is not intended to prohibit flight exhibitions by historic aircraft, which are extremely popular with the viewing public, but to ensure that pilots operating these aircraft are qualified on the type and competent to perform the manoeuvres on the program.

Since Regional Controllers Civil Aviation approve applications for air shows, prior to approval they are to review carefully the details of the proposed flight program, and more particularly, the aircraft type, the experience and competency of the pilot in command and the type of manoeuvres scheduled. The operation of vintage aircraft in acrobatic flight manoeuvres need not be curtailed if the aircraft is designed for such flight manoeuvres. The pilot involved in such acrobatic manoeuvres with these aircraft is to be checked for experience and competency on type by a qualified Civil Aviation Inspector, if practicable, or by an approved DFTE with acrobatic endorsement. The experience must include a minimum of ten hours of pilot in command on type within the last sixty days. The pilot shall have demonstrated to the satisfaction of either the Civil Aviation Inspector or the DFTE that the manoeuvres involved at the show can be performed safely.

McPherson
MacSwain
Musson
McDonell
Phillips
Burton
Goodbrand
Batchelor
Aston
~~Bitcher~~
Lee

Rec'd. in ASA
FEB 3 1978
93

Rec'd in DAS
FEB 2 1978
AS

..../2

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*



A letter will be required from the Civil Aviation Inspector or the DFTE attesting that the pilot has demonstrated his ability to perform satisfactorily the scheduled acrobatic flight manoeuvres during a pre-air show demonstration. In the event the foregoing requirements are not met, the aircraft should only be permitted to perform fly-passes in level flight with only turns as required to keep the aircraft within the flight demonstration area. There should be a formal written understanding between the sponsor of the air show and the approving Regional Controllers to this effect.

Recognizing that there may be extenuating circumstances, Regional Controllers should exercise their good judgement or if considered necessary, obtain further advice from Headquarters, and Regions should select and brief DFTE's to be approved for this task.

Original Signed by
H. R. FINLEY

H.R. Finley
Acting Deputy Director General
Civil Aeronautics

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

Transport Canada | Transports Canada

# ROUTE SLIP / *BORDEREAU D'ACHEMINEMENT*

| TO – À (NAME – *NOM*) | DESIGNATOR *SYMBOLE* | |
|---|---|---|
| V.H. McPherson | OCA1 | ☐ For approval *Pour approbation* |
| Toronto | | ☐ For Signature *Pour* |
| | | ☐ Comment *Observations* |
| | | ☑ For your Information *Pour votre* |
| | | ☐ Per our Conversation *Selon notre* |
| | | ☐ Discuss with me *Discuter avec moi* |
| | | ☐ Take appropriate action *Prendre les mesures appropriées* |

RECEIVED
FEB 21 1978
AIRCRAFT ACCIDENT INVESTIGATION
ONTARIO REGION

REMARKS – *REMARQUES*

For your information & records is copy of memo from DGCA/DDG to all Regions concerning vintage aircraft & airshows.

Any comment? 21/2/78

Would this have prevented the fire fly Accident??

Sally. Copies on Fox Moth & Firefly accident files, please.

| FROM – *DE* | Signature | Date | Telephone – Téléphone |
|---|---|---|---|
| Paul Sanders | | 9/2/78 | |

000005

02-0091 (4-76)

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

Transport Canada Air | Transports Canada Air

# AIRCRAFT ACCIDENT REPORT
# RAPPORT D'ACCIDENT D'AVIATION

*"This accident was investigated to provide guidance toward the prevention of a recurrence. The content of this report is confined to cause-related circumstances and is published for accident prevention purposes only".*

Ø60102 DH-83C C-FDJB

DATE: 5 September 1976 1316 EST
OPERATION: Private-Air Show Demonstration DAMAGE: Substantial
PLACE: Toronto CNE waterfront, Ont. 43/38N 79/26W
LOCALE: Lake - high waves
WEATHER: Cloud 4000 scattered, wind NNW 22 gusting to 29 mph, vis 15, temp 17°C
PILOT: Airline Transport

| | | | | |
|---|---|---|---|---|
| TOTAL HOURS: | 15,000 | ALL | 41 | ON TYPE |
| LAST 90 DAYS: | 158 | ALL | 41 | ON TYPE |

CASUALTIES: Crew: 1 serious; pass: 1 serious
OCCURRENCE: During an air display the vintage aircraft had just commenced a low level turn when it stalled and spun into the water.

Following an into wind run-in at 300' above the lake surface the pilot initiated a planned 360° turn to the right. During the first portion of the turn, the airspeed decayed from an indicated 75K to an indicated 60K as the bank angle was increased.

Due to the downwind drift illusion created by the high winds there was a natural tendancy for the pilot to apply excessive right rudder to compensate for the illusion of yaw and to increase the bank angle to compensate for drift towards the spectators.

When the bank angle reached 62° the indicated stall speed of the aircraft had increased from 40K to an indicated 60K.

As the aircraft passed through 90° of the turn, in non-coordinated flight and a high angle of bank, a violent power-on stall was experienced. The aircraft flicked to the right and entered a spin from which the pilot failed to recover.

1. Loss of control in flight.

## ICAO FACTORS

64A16 Pilot - Failed to obtain/maintain flying speed.

64A23 Pilot - Improper operation of primary flight controls.

64A31 Pilot - Lack of familiarity with aircraft.

64A02 Pilot - Attempted operation beyond experience/ability level.

## SAFETY PROPOSALS

Pilots performing in air shows with vintage aircraft should be encouraged to limit their performance to straight and level flybys.

Carrying passengers during air show performances should be discouraged and should never be on-board unless officials of the air show are aware that they are, particularly rescue personnel.

ASI-A3
13/9/77

## ASR ACTION

DAS recommend to DGCA that vintage aircraft be restricted to straight and level flypasts. See attached copy of memo.

P.D.Saunders,
ASR-3
Sept.30, 1977

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

BEST COPY AVAILABLE

TO / A: [redacted]CA/DDG

FROM / DE: A/DAS

SECURITY CLASSIFICATION / CLASSIFICATION DE SÉCURITÉ:

OUR FILE / NOTRE DOSSIER: 5002-§60102 (ASR-2)

YOUR FILE / VOTRE DOSSIER:

DATE: September 29, 1977

SUBJECT / OBJET: Accidents During Air Shows

The accidents involving a DH83 Fox Moth (1976) and a Fairey Firefly (1977) at the CNE Airshow are examples of a type of aircraft accident that has recurred many times in the past few years during air shows or exhibition flying. A factor common to most of these accidents is inexperience; i.e. by attempting maneuvers for which the pilot had not developed an adequate skill on type. The risk is usually increased by the relatively low height at which the maneuvers are attempted.

The pilot of the above-mentioned DH83 Fox Moth was a 15,000 hour B747 Captain [redacted] With the exception of his initial training on Harvards 22 years earlier most of his flying had been on heavy aircraft. [redacted]. Photographic evidence of this (the first) maneuver shows the aircraft in a right turn with nearly 60° bank, (the pilot thought his turn to be about 35° bank). During this turn the aircraft stalled and flicked to the right (inward) and entered a right spin. The photography shows right aileron and full right rudder was held through the two turns to impact. [redacted]

To reduce the risk of similar accidents recurring we recommend appropriate steps be taken to ensure that vintage aircraft participating in exhibition flying or airshows be restricted to straight and level fly pasts. An exception could be made for approval of other requested manéuvers only when the pilot has a proven proficiency to perform them.

s.19(1)

H.A.Fawcett,
A/Director,
Aviation Safety Bureau.

ASR _____

ASR-2 _____

cc: DAS: A/DAS: ASR: ASR-2
T.M.Saunderson, SLLC

Document disclosed under the Access to Information Act -
Document divulgué en vertu de la Loi sur l'accès à l'information

Transport Canada Air | Transports Canada Air

AIRCRAFT ACCIDENT REPORT
RAPPORT D'ACCIDENT D'AVIATION

RECEIVED
SEP 19 1977
AIRCRAFT ACCIDENT INVESTIGATION ONTARIO REGION

CA1
002173

*"This accident was investigated to provide guidance toward the prevention of a recurrence. The content of this report is confined to cause-related circumstances and is published for accident prevention purposes only".*

Ø60102 DH-83C C-FDJB

DATE: 5 September 1976 1316 EST
OPERATION: Private-Air Show Demonstration DAMAGE: Substantial
PLACE: Toronto CNE waterfront, Ont. 43/38N 79/26W
LOCALE: Lake - high waves
WEATHER: Cloud 4000 scattered, wind NNW 22 gusting to 29 mph, vis 15, temp 17°C
PILOT: Airline Transport

| | | | | |
|---|---|---|---|---|
| TOTAL HOURS: | 15,000 | ALL | 41 | ON TYPE |
| LAST 90 DAYS: | 158 | ALL | 41 | ON TYPE |

CASUALTIES: Crew: 1 serious; pass: 1 serious
OCCURRENCE: During an air display the vintage aircraft had just commenced a low level turn when it stalled and spun into the water.

Following an into wind run-in at 300' above the lake surface the pilot initiated a planned 360° turn to the right. During the first portion of the turn, the airspeed decayed from an indicated 75K to an indicated 60K as the bank angle was increased.

Due to the downwind drift illusion created by the high winds there was a natural tendancy for the pilot to apply excessive right rudder to compensate for the illusion of yaw and to increase the bank angle to compensate for drift towards the spectators.

When the bank angle reached 62° the indicated stall speed of the aircraft had increased from 40K to an indicated 60K.

As the aircraft passed through 90° of the turn, in non-coordinated flight and a high angle of bank, a violent power-on stall was experienced. The aircraft flicked to the right and entered a spin from which the pilot failed to recover.

1. Loss of control in flight.

ICAO FACTORS

64A16 Pilot - Failed to obtain/maintain flying speed.

64A23 Pilot - Improper operation of primary flight controls.

64A31 Pilot - Lack of familiarity with aircraft.

64A02 Pilot - Attempted operation beyond experience/ability level.

SAFETY PROPOSALS

Pilots performing in air shows with vintage aircraft should be encouraged to limit their performance to straight and level flybys.

Carrying passengers during air show performances should be discouraged and should never be on-board unless officials of the air show are aware that they are, particularly rescue personnel.

ASI-A3
13/9/77

ASR ACTION

Document disclosed under the Access to Information Act
Document divulgué en vertu de la Loi sur l'accès à l'information

G & M 1977 Sept 1 Page 5

Jumbo jet captain inspects Fox Moth, rebuilt with some parts from crashed predecessor

# Crashed into lake at CNE, Fox Moth to fly again

By DONALD GRANT

"It was like banging into a fence post with a car."

That's how Garth Martin described the crash of his plane, a vintage Fox Moth, into Lake Ontario last year during the annual Canadian National Exhibition air show.

"It was rough luck," said the Wardair 747 captain. "That's about it."

About 50,000 people lining the CNE waterfront witnessed the crash.

They saw the little plane that was like the one Max Ward (owner of Wardair) used to start his air service in 1946 hit the water and sink in front of them. But Mr. Martin scrambled from the cockpit in the rear fuselage as the plane sank nose first. It took down his passenger, George Benedik, unconscious in the enclosed front cabin.

Harbor policemen dived three times to rescue Mr. Benedik, who was seriously injured and spent three months in hospital.

Yesterday Mr. Martin proudly showed another Fox Moth that is being built with bits and pieces of that crash plane, plus a second Fox Moth Mr. Ward commissioned him to buy.

The plane that crashed had been bought five years before by Mr. Ward in memory of his first Fox Moth, the wooden aircraft with the 140-horsepower engine that began his air service in the bush areas of Yellowknife.

When he was asked to find another one, Capt. Martin found that only 93 had been built in Britain and 53 in Canada. And after a world-wide search he found one, forgotten by a plane restorer in Newburyport, Mass.

That pile of spiderwebs, nuts and bolts was to be the basis of the new Fox Moth, using parts of the plane that crashed. But the plane with wooden wings dated Nov. 7, 1942, was beyond using completely.

"It's been easier to build a new fuselage than restore the old one," said Capt. Martin.

Since June, under the direction of Dan McNiven, Wardair's manager of maintenance, Ken Allen, Andy Obergfell and Ken Parr have been piecing the Fox Moth together.

And who'll be making the solo flight?

"Oh I will," said Capt. Martin without hesitation.

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

Government Canada / Gouvernement du Canada

**MEMORANDUM** **NOTE DE SERVICE**

TO / À: ASI OTTAWA

FROM / DE: OCAI TORONTO

SECURITY - CLASSIFICATION - *DE SÉCURITÉ*:

OUR FILE - *N/RÉFÉRENCE*: 5002-060102

YOUR FILE - *V/RÉFÉRENCE*:

DATE: January 27th, 1977

SUBJECT / *OBJET*: DEHAVILLAND DH-83C, C-FDJB
ACCIDENT: TORONTO (C.N.E. WATER FRONT), ONTARIO
SEPTEMBER 5TH, 1976

ENCLOSED IS A COPY OF THE REPORT OF AN AIRCRAFT ACCIDENT AND PHOTOS PERTAINING TO THE ABOVE MENTIONED AIRCRAFT ACCIDENT.

V. H. McPHERSON
REGIONAL SUPERINTENDENT
ACCIDENT INVESTIGATION

ENCLOSURE

SAM/rb



CGSB STANDARD FORM 22d 7540 21-865-6699 *FORMULE NORMALISÉE 22d DE L'ONGC*

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

MINISTRY OF TRANSPORT
AVIATION SAFETY INVESTIGATION

# REPORT OF INVESTIGATION OF AN AIRCRAFT

[X] ACCIDENT [ ] INCIDENT

FILE NUMBER 0101: 5002 - 060102
AIRCRAFT REGISTRATION 0102: C - FDJB.

| LOCATION OF OCCURRENCE | PROVINCE | REGION |
|---|---|---|
| 0103 TORONTO (C.N.E WATER FRONT) | 0104 ONTARIO | 0105 ONTARIO |

| LATITUDE | LONGITUDE | DATE (DAY MONTH YEAR) | TIME (LOCAL) |
|---|---|---|---|
| 0106 43° 38' N | 0107 79° 26' W | 0108 5 SEPT 1976 | 0109 14:16 EDT |

LIGHT CONDITIONS AT SITE 0110

| | | | | | |
|---|---|---|---|---|---|
| A | DAWN | C | DUSK (TWILIGHT) | E | NIGHT (BRIGHT) |
| [X] B | DAYLIGHT | D | NIGHT (DARK) | | |

## PERSONNEL IDENTIFICATION

**REGISTERED OWNER**
NAME: WARD AIR CANADA 1975 LTD.
ADDRESS: 26TH FLOOR, C.N. TOWERS EDMONTON, ALTA.

**OPERATOR** (s.19(1))
NAME: [X] A 0113 SAME AS OWNER OR
ADDRESS:
ATC LICENCE NUMBER:
OPERATOR CODE 0112:

ATC LICENCE CLASSIFICATION THIS FLIGHT 0111

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| [X] A | NONE | E | 4 | M | 7APS | S | 8 |
| B | 1 | F | 5 | N | 7AAD | T | 9-2 |
| C | 2 | G | 6 | P | 7AIRA | U | 9-3 |
| D | 3 | H | 7RF | Q | 7AC | V | 9-4 |
| | | K | 7FT | R | 7A CONST. | W | 9-5 |
| | | L | 7AP | | | | |

STATUS RESPECTIVE TO THIS AIRCRAFT 0113: B RENTER; C LESSEE; D UNKNOWN

TYPE OF OPERATOR (GENERAL AVIATION) 0114

| | | | | | |
|---|---|---|---|---|---|
| A | FLYING SCHOOL | M | FLYING CLUB | R | AERIAL WORK |
| Q | CHARTER | F | FBO-SALES/SERVICES/RENTAL | [X] P | PRIVATE OWNER |
| I | STATE – MUNICIPAL | B | CORPORATE/EXECUTIVE | Y | OTHER |
| H | STATE – PROVINCIAL | K | A/C MANUFACTURER | | |
| G | STATE – FEDERAL | C | AERIAL APPLICATOR | | |

**PILOT IN COMMAND** 0115
NAME: SAME AS: A OWNER B OPERATOR OR
GARTH McLEAN MARTIN
ADDRESS: [redacted]
LICENCE NUMBER 0116: XDA - 867

STATUS IF NOT OWNER OR OPERATOR 0117

| | | | |
|---|---|---|---|
| C | UNAUTHORIZED USER | [X] F | EMPLOYEE |
| D | RENTER | G | BORROWER |
| E | CLUB MEMBER | | |
| Y | OTHER | | |

## MATERIAL IDENTIFICATION

| AIRCRAFT | MANUFACTURER 0118 | MODEL 0119 | SERIAL NUMBER 0120 | MAX T/O WEIGHT 0121 | YEAR OF MANUFACTURE 0122 |
|---|---|---|---|---|---|
| | DE HAVILLAND AIRCRAFT OF CANADA | DH-83C | F.M-28 | 2100 | |

AIRCRAFT CLASSIFICATION 0123 0124

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| [X] A | AEROPLANE | I | GYROPLANE | F | DIRIGIBLE | | HOMEBUILT |
| B | HELICOPTER | D | BALLOON | E | BLIMP | | ULTRA-LIGHT |
| C | GLIDER | Y | OTHER | | | | |

LANDING GEAR 0125 0126

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1 | H | TRICYCLE FIXED | G | TAILWHEEL RETRACT | D | SKI | Y OTHER |
| 1 | F | TRICYCLE RETRACT | B | HULL/FLOAT | E | SKID | |
| 1 | [X] A | TAILWHEEL FIXED | C | AMPHIBIOUS | | | |
| 2 | A | HULL | B | FLOAT | C | SKI-WHEEL | D FLOAT-SKID |

WING/ROTOR 0127

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| A | LOW WING | C | MID WING | E | TWIN ROTOR | [X] F | BIPLANE |
| B | HIGH WING | D | SINGLE ROTOR | Y | OTHER | | |

SPECIAL EQUIPMENT 0128

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| A | TOWING GEAR | D | AMBULANCE | G | AIR DROP (CARGO) | K | AIR DROP (PARACHUTIST) |
| B | PHOTO | E | GEOPHYSICAL SURVEY | H | SLING/HOIST | L | WATER BOMBING |
| C | AERIAL APPLICATION | F | MONSOON BUCKET | Y | OTHER | | |

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

## CONCLUSION DE L'AUTOPSIE

| MALADIE CONNEXE | MALADIE IMPRÉVUE | BLESSURES GRAVES À L'IMPACT | AUTRES BLESSURES À L'IMPACT |
|---|---|---|---|
| RAPPORT NON OFFICIEL | RAPPORT NON OFFICIEL | PROBABLEMENT IMMÉDIATEMENT MORTELLE | AUCUNE ÉVALUATION |
| AUCUNE DOCUMENTATION NÉCESSAIRE | AUCUNE DOCUMENTATION NÉCESSAIRE | PROBABLEMENT MORTELLE EN DECÀ DE 10 SEC. | MANIPULATION DES COMMANDES |
| PREUVE PROBABLE AU PILOTE | PILOTE PROBABLEMENT AU COURANT | PROBABLEMENT MORTELLE EN DECÀ DE 1 HEURE | ENTRAVÉ PAR CEINTURE DE SÉCURITÉ |
| | PREUVE DE TRAITEMENT | SURVIE DE PLUS DE 1 HEURE | ENTRAVÉ PAR BRETELLE DE SÉCURITÉ |
| PREUVE DE TRAITEMENT | | PROBABILITÉ DE PERTE IMMÉDIATE DE CONNAISSANCE | FORCES D'ÉCRASEMENT |

| OCCUPATION DU SIÈGE | ÉTAT AVANT L'IMPACT | ÉTAT APRÈS L'IMPACT |
|---|---|---|
| AUCUNE ÉVALUATION | AUCUNE PREUVE D'ANORMALITÉ | ASPHYXIE (FUMÉE) |
| GENRE DE CONTRÔLE A CAUSÉ LA BLESSURE | RÉGIME DISPONIBLE | NOYADE |
| | INCENDIE (FUMÉE) | CHOC CHIRURGICAL GRAVE |
| IDENTIFICATION POSITIVE À L'AUTOPSIE | EXPLOSION | SURVIE PROLONGÉE |
| | AUTRE BLESSURE | |

## BIOCHIMIE

| TOXICOLOGIE | ALCOOL DANS LE SANG | ALCOOL DANS LES TISSUS | ALCOOL DANS L'URINE | MONOXYDE DE CARBONE | AUTRE PRODUITS TOXIQUES |
|---|---|---|---|---|---|
| | INSIGNIFIANT <10 Mg | INSIGNIFIANT | INSIGNIFIANT | INSIGNIFIANT | CONCORDE À UNE DOSE *THÉRAPEUTIQUE* |
| | PRÉSENT 11-40 Mg | EN ACCORD AVEC L'ALCOOL DANS LE SANG | EN ACCORD AVEC L'ALCOOL DANS LE SANG | CONCORDE AVEC LA FUMÉE DE CIGARETTE | ANORMALEMENT ÉLEVÉ EN RAP. AVEC UNE DOSE THER. |
| | IMPORTANT 41-150 Mg | CONCORDE AVEC LES DON. D'UN ÉTAT APRÈS-ABSORPT'N | | | PROVENANT DE L'ACCIDENT |
| | BEAUCOUP PLUS ÉLEVÉ QUE 150Mg | CONSOMMATION RÉCENTE | EN ACCORD AVEC L'ALCOOL DANS LES TISSUS | CONCORDE AVEC LA PRÉSENCE D'UN INCENDIE | PROVENANT DU PILOTAGE |
| | | PUTRÉFACTION | | | |

| PROFIL | QUALITÉ DU PROFIL LACTICÉNIQUE | PROBABILITÉ DE TENSION LACTICÉNIQUE | LACTICÉMIE CARDIAQUE | AUTRE ÉTAT LACTICÉMIQUE DU CORPS | AUTRE LACTICÉMIE DES TISSUS, PROUVER |
|---|---|---|---|---|---|
| | INCOMPLET | AUCUNE PREUVE DE TENSION | RELATIVEMENT ÉLEVÉE | HYPOGLYCÉMIE | VALEUR PULMONAIRE ÉLEVÉ |
| | IRRÉGULIER | VALEUR CARDIAQUE FAIBLE, 2-6 SEC. | RELATIVEMENT NORMALE | CHOC CHIRURGICAL PROLONGÉ | VALEUR PULMONAIRE FAIBLE |
| | MODIFIÉ PAR LE MILIEU | GLUCOGÉNÈSE 6-20 SEC. | RELATIVEMENT FAIBLE | MODIFICATION POSSI. PAR UN AGENT TOXIQUE | ACTIVITÉ MUSCULAIRE |
| | DANS LES LIMITES (FIABLE) | RÉPONSE TOTALE À LA TENSION 20 SEC. + | ANORMALLEMENT FAIBLE | HYPOXIE | SPLEEN ANORMAL |
| | | | VALEURS Na ET K DISPONIBLES | | |

## ÉPIDÉMIOLOGIE DE L'ACCIDENT

| ANTÉCÉDENTS PERSONNELS (EN INSCRIRE JUSQU'À 3) | ANTÉCÉDENTS DE TRAVAIL (INSCRIRE JUSQU'À 3) |
|---|---|
| BLESSURES OU OPÉRATIONS RÉPÉTÉES | ANTÉCÉDENTS PROUVÉS DE TRAVAIL MAL EXÉCUTÉ |
| HYPOCONDRIE | ACCIDENTS INDUSTRIELS |
| ACCIDENTS DE VOITURE/D'AVIATION | DISCIPLINE AU TRAVAIL (BON TRAVAILLANT) |
| IRRESPONSABILITÉ FINANCIÈRE | FAIBLE MOTIVATION AU TRAVAIL |
| TÉMÉRITÉ | FAIBLE MOTIVATION AU VOL |
| ANTÉCÉDENTS FAMILIAUX PROVOQUANT UNE TENSION | |

| ANTÉCÉDENTS DE VOL (EN INSCRIRE JUSQU'À 3) | ÉVALUATION DE SES COLLÈGUES |
|---|---|
| CONTRAVENTIONS ANTÉRIEURES AUX RÈGLES DE L'AIR | EXCEPTIONNELLEMENT COMPÉTENT |
| CONTRAVENTIONS PROBABLES, NON PROUVÉES | PILOTE SÛR, FIABLE |
| OPÉRATIONS AÉRIENNES PLUS OU MOINS LICITES | PILOTE MOYEN, CONSIDÉRANT SON EXPÉRIENCE |
| FALSIFICATION POSSIBLE DE DOCUMENTS | PILOTE MOYEN, RENDEMENT PARFOIS INFÉRIEUR |
| DÉCISIONS PRISES PAR IMPULSION | PILOTE MOYEN, LENT À APPRENDRE |
| PEUR DE VOLER | PILOTE INFÉRIEUR À LA MOYENNE |

REMARQUES:

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

## MATERIAL IDENTIFICATION (CONT'D)

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| ENGINE(S) | MANUFACTURER 0201 DEHAVILLAND | MODEL 0202 GIPSY MAJOR 1-C | NUMBER INSTALLED 0203 ONE | POWER 0204 140 | X HP. / Lbs THRUST | | |
| SERIAL NUMBERS | 1 85607A | 2 | 3 | 4 | | | |
| ENGINE TYPE 0205 | X A RECIPROCATING | F TURBOSHAFT (HELICOPTERS) | B TURBOJET | E NONE | | | |
| | C TURBOPROP | D TURBOFAN | Y OTHER | | | | |
| PROPELLER(S)/ ROTOR BLADES | MANUFACTURER 0206 FAIRY REED | MODEL 0207 94103-X1 | SERIAL NOS (1) FR 35796 | (2) | (3) | (4) | |
| PROPELLER TYPE 0208 0209 | X A FIXED METAL | C VARIABLE PITCH | E FIXED WOODEN | REVERSIBLE | | | |
| | B CONSTANT SPEED | D CONSTANT SPEED FULLY FEATHERING | OTHER | | | | |
| ROTOR SYSTEM 0210 | A RIGID | D HINGELESS | G VARIABLE DIAMETER | | | | |
| | B SEMI-RIGID | E GIMBALLED | H CONTROLLABLE | | | | |
| | C FULLY ARTICULATED | F VARIABLE GEOMETRY | K FULLY INTEGRATED PROPULSION SYSTEMS | | | | |

## HISTORY OF THE FLIGHT

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| OPERATION GENERAL AVIATION 0211 | INSTRUCTIONAL | A0 DUAL | A1 SUPERVISED SOLO | A2 CHECK | A3 TRAINING (EXCEPT AIR CARRIER) | | | |
| | NON-COMMERCIAL | B0 PLEASURE | B2 BUSINESS-PROFESSIONAL PILOT | B3 BUSINESS—NON-PROFESSIONAL PILOT | | | | |
| | | B1 PRACTICE | X B9 OTHER AIR SHOW PARTICIPANT | | | | | |
| | COMMERCIAL (DIRECT FINANCIAL RETURN) | CA AERIAL APPLICATION | CB ASSOCIATED CROP CONTROL ACTIVITIES | CC FIRE CONTROL | | | | |
| | | CE AERIAL SURVEY | CF AERIAL ADVERTISING | CD ASSOCIATED FIRE CONTROL ACTIVITIES | | | | |
| | | CG POWER/PIPELINE PATROL | CH AERIAL SPOTTING (OVER WATER) | CK CONSTRUCTION (ROTORCRAFT) | | | | |
| | | CW AERIAL PHOTOGRAPHY | CX AERIAL AMBULANCE | CY OTHER | | | | |
| | MISCELLANEOUS | DA EXPERIMENTAL | DC DEMONSTRATION | DB TEST | | | | |
| | | DD FERRY | DY OTHER | | | | | |
| OPERATION AIR TRANSPORT 0211 | DOMESTIC | SCHEDULED | PASSENGER | OTHER | | | | |
| | INTERNATIONAL | NON-SCHEDULED | CARGO | TRAINING | | | | |
| LOAD DESCRIPTION 0212 | A NONE | E PARACHUTIST(S) | K PHOTO EQUIPMENT | P SIGN/DROGUE | | | | |
| | X B PASSENGERS | F PESTICIDES | L FERTILIZER | Q GLIDER | | | | |
| | C CARGO | G POLES/TOWERS | M FISH/FISH EGGS | Y OTHER | | | | |
| | D CARGO & PASSENGERS | H WATER/CHEMICAL | N POTENTIALLY DANGEROUS CARGO | | | | | |
| 0213 LOAD POSITION | X A INTERNAL | B EXTERNAL | C NONE | | | | | |

| | |
|---|---|
| LAST DEPARTURE POINT 0214 TORONTO ISLAND AIRPORT | POINT OF INTENDED LANDING 0215 TORONTO ISLAND AIRPORT |
| FIRST PHASE OF OPERATION 0216 LOW PASS (DB) | FIRST TYPE OF OCCURRENCE 0217 SPIRAL (Q) |
| SECOND PHASE OF OPERATION 0218 | SECOND TYPE OF OCCURRENCE 0219 |

PRELIMINARY VERSION OF OCCURRENCE

The pilot was attempting a low level 360 degree turn to the right, while participating in the Canadian International Air Show at the C.N.E. water front, Lake Ontario.

The aircraft struck the surface of the water in a steep nose down right wing low altitude.

| | | | | | | |
|---|---|---|---|---|---|---|
| 0220 AIRCRAFT DAMAGE | N NONE | M MINOR | X S SUBSTANTIAL | D DESTROYED | Z UNKNOWN | |

| INJURIES TO PERSONS | FATAL | SERIOUS | MINOR | NONE | UNKNOWN | TOTAL |
|---|---|---|---|---|---|---|
| PILOT IN COMMAND | 0221 | 0222 ONE | 0223 | 0224 | 0225 | 0226 ONE |
| OTHER CREW | 0227 | 0228 | 0229 | 0230 | 0231 | 0232 |
| PASSENGERS | 0233 | 0234 ONE | 0235 | 0236 | 0237 | 0238 ONE. |
| PERSONS OUTSIDE AIRCRAFT | 0239 | 0240 | 0241 | 0242 | 0243 | 0244 |

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

## EXAMEN MÉDICAL – DONNÉES PHYSIOLOGIQUES (SUITE)

| VISION | VISION NORMALE ÉTABLIE | VISION CORRIGÉE | CORRECTION LORS DE L'ÉVÉNEMENT | PHORIE | MONOCULAIRE | AUTRE AFFECTION DE LA VISION |
|---|---|---|---|---|---|---|
| | AU DERNIER EXAMEN MÉDICAL | MYOPIE | INCONNUE | MANIFESTE DE LONGUE DATE | VRAIE DE LONGUE DATE | NON TRAITÉE |
| | RENDEMENT RÉCENT | HYPERMÉTROPIE | PORT DE LUNETTES | | | EN TRAITEMENT |
| | MESURES PRISES AU COURS DES 3 DERNIERS MOIS | PRESBYTIE | | PHORIE GRAVE | VRAIMANT MONOCULAIRE | |
| | | PHORIE | PORT DE LENTILLES DE CONTACT | | MONOCULAIRE TEMPORAIRE | INCONNUE AU MOMENT DE L'ÉVÉNEMENT |
| | | AUTRE | | PHORIE PEU PRONONCÉE | | |

| OREILLES NEZ GORGE | OUIE NORMALE ÉTABLIE | PERTE ACCEPTABLE ENREGISTRÉE | PERTE UNILATÉRALE DE PLUS DE 30 DB | EMPLOI D'UN AMPLIFICATEUR ORICULAIRE | BARATRAUMATISME OTITIQUE OU DES SINUS | AUTRES AFFECTIONS |
|---|---|---|---|---|---|---|
| | PAR EXAMEN | OREILLE DROITE | OREILLE DROITE | DISPOSITIF INDIVIDUELLE | ANTÉCÉDENTS | ANTÉCÉDENTS |
| | PAR AUDIOGRAMME | OREILLE GAUCHE | OREILLE GAUCHE | CASQUE D'ÉCOUTE | CRISE AIGUË | AIGUË |
| | | LES DEUX OREILLES | LES DEUX OREILLES | | POSSIBLE | |

| SYSTÈME GÉNITO URINAIRE | COLIQUES RÉNALES | GROSSESSE | AUTRES AFFECTIONS |
|---|---|---|---|
| | ANTÉCÉDENTS | SANS COMPLICATION | ANTÉCÉDENTS |
| | ATTAQUE AIGUË | COMPLICATIONS GRAVES | AFFECTION AIGUË |
| | | ANTÉCÉDENTS DE COMPLICATION | |

| SYSTÈME NERVEUX CENTRAL | CONVULSION | SYNCOPE | AFFECTION CÉRÉBRO-VASCULAIRE | MIGRAINE | AUTRES CONDITIONS |
|---|---|---|---|---|---|
| | ANTÉCÉDENTS SEULS | ANTÉCÉDENTS SEULS | ANTÉCÉDENTS SEULS | ANTÉCÉDENTS DE MAUX DE TÊTE | ANTÉCÉDENTS |
| | BLESSURE ANTÉRIEURE À LA TÊTE | CIRCONSTANCES AGGRAVANTES PRÉS. | CIRCONSTANCES AGGRAVANTES | ANTÉCÉDENTS DE MIGRAINE ORDINAIRE | AFFECTION AIGUË |
| | CIRCONSTANCES AGGRAVANTES | RÉGIME INSUFFISANT | AFFECTION AIGUË | AFFECTION AIGUË | |

| ÉTAT PSYCHIATRIQUE | PSYCHOSE | NEUROSE | TROUBLE DE PERSONNALITÉ | ALCOOLISME | AUTRES |
|---|---|---|---|---|---|
| | ANTÉCÉDENTS | ANTÉCÉDENTS | ANTÉCÉDENTS | ANTÉCÉDENTS | ANTÉCÉDENTS |
| | IRRITATION AIGUË | CIRCONSTANCES AGGRAVANTES | CIRCONSTANCES AGGRAVANTES | TRAITEMENT ANTÉRIEUR | SEULEMENT |
| | TENTATIVE DE SUICIDE | TENTATIVE DE SUICIDE | ACTES RÉPÉTÉS CONTRE L'AUTORITÉ | DIMINUTION DES FACULTÉS | AFFECTION AIGUË SUSPECTÉE |
| | | | | DIMINUTION POSSIBLE DES FACULTÉS | |

| AUTRES AFFECTIONS | AFFECTIONS ORTHOPÉDIQUES | AFFECTION HORMONALE | PROTHÈSES DES MEMBRES | EFFETS DES MÉDICAMENTS | EMPLOI DES DROGUES | AUTRES AFFECTIONS NON MENTIONNÉES |
|---|---|---|---|---|---|---|
| | ANTÉCÉDENTS SEULS | ANTÉCÉDENTS SEULS | VÉRIFIÉ EN VOL | EFFET POSSIBLE | ANTÉCÉDENTS SEULS | ANTÉCÉDENTS SEULS |
| | AFFECTION AIGUË SUSPECTÉE | STABILISÉ PAR TRAITEMENT | INACCEPTABLE | PREUVE D'EMPLOI PERSONNEL | EMPLOI RÉCENT | EMPLOI POSSIBLE |
| | AFFECTIONS MUSCULAIRES | | | MÉDICAMENTS PRESCRITS | EMPLOI RÉCENT POSSIBLE | EMPLOI PROBABLE/CONNU |
| | ANTÉCÉDENTS SEULS | STABILISATION DOUTEUSE | IMPLICATION IMPROBABLE | EFFET PROBABLE DES MÉDICAMENTS | DOSSIER DE TRAITEMENT ANTÉR. | |
| | AFFECTION AIGUË SUSPECTÉE | | | | | |

| ORIENTATION | | DANGER MAL PERÇU | DANGER PERÇU | RÉACTION AMORCÉE |
|---|---|---|---|---|
| | ERREURS DE PERCEPTION | DIMINUTION TECHNIQUE DE LA VISION | ILLUSION VISUELLE POSSIBLE | RÉACTION PROBABLEMENT INCORRECTE |
| | | DONNÉES VISUELLES INSUFFISANTES | DANGER PROBABLEMENT MAL INTERPRÉTÉ | TEMPS INSUFFISANT POUR TERMINER LA MANOEUVRE |
| | | DISTRACTION POSSIBLE | DANGER PROBABLEMENT IGNORÉ | PERTE DE CONTRÔLE |
| | | IGNORANCE PROBABLE DU DANGER | | |

| | | FONCTIONS VESTIBULAIRES (ALCOOL NON EN CAUSE) | AUTRES SENS | RÉACTION AMORCÉE | RÉTABLISSEMENT AMORCÉ |
|---|---|---|---|---|---|
| | AUTRES ERREURS D'ORIENTATION | DÉSORIENTATION (CONDITIONS PRÉSENTES) | AMORCE DE CHANGEMENT DE DIRECTION | RÉACTION INCORRECTE PROBABLE | TEMPS/ESPACE AÉRIEN INSUFFISANT |
| | | DÉSORIENTATION NON PERÇUE PROBABLEMENT INDUITE | AMORCE DE CHANGEMENT DE VITESSE | RÉACTION AGRAVANTE POSSIBLE | DÉPASSEMENT DES LIMITES STRUCTURALES |
| | | DÉSORIENTATION PERCUE ET PRODUITE | | | |
| | | CAUSE PROBABLE DE DÉSORIENTATION (MÉDICAMENT, MALADIE) | CHANGEMENT DE DIRECTION DE VITESSE PROBABLEMENT INDUIT | PERTE DE CONTRÔLE | DÉSORIENTATION PLUS POUSSÉE INDUITE |

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

## HISTORY OF THE FLIGHT (CONT'D)

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| TYPE OF FLIGHT PLAN 0301 | X | NONE | | VFR | | IFR | | UNKNOWN |
| | | FLIGHT NOTIFICATION-FILED | | FLIGHT NOTIFICATION-VERBAL | | OTHER | | |
| TYPE OF CLEARANCE 0302 | X | NONE | | TAXI | | ENROUTE | | APPROACH/DEPARTURE |
| AERONAUTICAL DEPARTURE BRIEFING 0303 | 1 | AIS AVAILABLE & USED - INFORMATION VALID | | | 3 | AIS AVAILABLE AND NOT USED | | |
| | 2 | AIS AVAILABLE & USED - INFORMATION INVALID | | | X | AIS NOT AVAILABLE | | |

| DURATION OF FLIGHT | AIRCRAFT SPEED | | ALTITUDE OF OCCURRENCE (AGL) | COLLISION OR NEAR COLLISION | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | AT TIME OF OCCURRENCE IN FLIGHT | AT IMPACT | | REGISTRATION OF OTHER AIRCRAFT | EVASIVE ACTION TAKEN 0309 | | | | |
| HR 10 MIN. 0304 | 0305 60 Kt | 0306 Kt | 0307 feet | 0308 | | YES | | NO | | UNK |

| AIRSPACE SEGMENT 0310 | | | | | | |
|---|---|---|---|---|---|---|
| | E | UNCONTROLLED AIRSPACE | P | MOVEMENT AREA | K | HOLDING AREA |
| | X | CONTROLLED AIRSPACE | C | CONTROL ZONE | N | MANOEUVRING AREA |
| | B | CONTROL AREA | J | INITIAL APPROACH AREA | Y | OTHER |
| | G | ADVISORY AIRSPACE | L | INTERMEDIATE APPROACH AREA | | |
| | I | ADVISORY AREA | M | FINAL APPROACH AREA | | |

| EMERGENCY CIRCUMSTANCES (Select up to 2) 0311 | | | | | | |
|---|---|---|---|---|---|---|
| | A | LOW ON FUEL | M | AIRFRAME BUFFET/VIBRATION | C | PASSENGER DISTURBANCE |
| | D | FIRE WARNING | N | UNUSUAL NOISE | P | PHYSICAL CONDITION OF OCCUPANT (NOT FLIGHT CREW) |
| | E | LATERAL CONTROL PROBLEM | R | PROP/ENGINE VIBRATION | S | UNLAWFUL INTERFERENCE (HIJACKING, SABOTAGE) |
| | F | PITCH CONTROL PROBLEM | T | LANDING GEAR MALFUNCTION | U | PHYSICAL CONDITION OF FLIGHT CREW |
| | G | DIRECTIONAL CONTROL PROBLEM | V | PRESSURIZATION PROBLEM | H | WEATHER ADVERSE/UNFAVOURABLE |
| | J | AIRCRAFT DAMAGE SUSPECTED OR KNOWN | X | KNOWN OR SUSPECTED REDUCED AIRCRAFT PERFORMANCE | I | VISUAL & LIGHT CONDITIONS |
| | K | MECHANICAL DISCREPANCY SUSPECTED OR KNOWN | B | SMOKE INSIDE AIRCRAFT | Y | OTHER |
| | L | DOOR/PANEL OPEN | Q | FUMES INSIDE AIRCRAFT | | |

| FORCED LANDING-PRECAUTIONARY LANDING 0312 | | | | | | |
|---|---|---|---|---|---|---|
| | A | F.L. ON AERODROME/HELIPORT | B | F.L. OFF AERODROME ON LAND | C | DITCHING |
| | D | P.L. ON AERODROME | E | P.L. OFF AERODROME | | |

| TYPE OF INSTRUMENT APPROACH FLOWN 0313 | | | | | | |
|---|---|---|---|---|---|---|
| | E | NDB STRAIGHT-IN | G | ILS RADAR MONITOR STRAIGHT-IN | 3 | ILS CAT I OR ABOVE MANUAL CONTROL |
| | F | NDB CIRCLING | H | ILS RADAR MONITOR CIRCLING | 5 | ILS CAT I AUTOPILOT CONTROL |
| | C | VOR STRAIGHT-IN | I | ILS STRAIGHT-IN | 6 | ILS CAT II AUTOPILOT CONTROL |
| | D | VOR CIRCLING | J | ILS CIRCLING | 4 | ILS CAT II MANUAL CONTROL |
| | X | VORTAC | K | LOC BCRS STRAIGHT-IN | 7 | ILS CAT III AUTOLANDING |
| | P | SURVEILLANCE RADAR STRAIGHT-IN | L | LOC BCRS CIRCLING | R | VISUAL STRAIGHT-IN |
| | Q | SURVEILLANCE RADAR CIRCLING | I | LOC FRONT CRS STRAIGHT-IN | S | VISUAL FULL CIRCUIT |
| | T | PAR STRAIGHT-IN | J | LOC FRONT CRS CIRCLING | Y | OTHER |

| INJURY INDEX 0314 | F | FATAL | X | SERIOUS | M | MINOR | N | NONE |
|---|---|---|---|---|---|---|---|---|

| INJURIES TO PERSONS | FATAL | SERIOUS | MINOR | NONE | UNKNOWN | TOTALS |
|---|---|---|---|---|---|---|
| PILOT IN COMMAND | 0221 | 0222 ONE | 0223 | 0224 | 0225 | 0226 ONE |
| CO-PILOT | 0315 | 0316 | 0317 | 0318 | 0319 | 0320 |
| DUAL STUDENT | 0321 | 0322 | 0323 | 0324 | 0325 | 0326 |
| SUPERVISORY PILOT | 0327 | 0328 | 0329 | 0330 | 0331 | 0332 |
| FLIGHT ENGINEER/ SYSTEMS OPERATOR | 0333 | 0334 | 0335 | 0336 | 0337 | 0338 |
| NAVIGATOR/RADIO OPERATOR | 0339 | 0340 | 0341 | 0342 | 0343 | 0344 |
| CABIN CREW | 0345 | 0346 | 0347 | 0348 | 0349 | 0350 |
| SUPERNUMERARY CREW | 0351 | 0352 | 0353 | 0354 | 0355 | 0356 |
| PASSENGERS | 0233 | 0234 ONE | 0235 | 0236 | 0237 | 0238 ONE |
| TOTAL ABOARD | 0357 | 0358 | 0359 | 0360 | 0361 | 0362 |
| OTHER (AIRCRAFT) | 0363 | 0364 | 0365 | 0366 | 0367 | 0368 |
| OTHER (GROUND) | 0369 | 0370 | 0371 | 0372 | 0373 | 0374 |
| TOTALS | 0375 | 0376 TWO | 0377 | 0378 | 0379 | 0380 TWO |

| MILITARY INVOLVEMENT 0381 | Y | YES | X | NO |
|---|---|---|---|---|

| DAMAGE TO OTHER PROPERTY 0382 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | A | SCHOOL | B | HOUSE(S) | F | COMMERCIAL BLDG | C | CHURCH |
| | E | OFFICE BUILDING | D | APARTMENT(S) | G | SHOPPING CENTRE | | OTHER |

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

## EXAMEN MÉDICAL – DONNÉES PHYSIOLOGIQUES

| IDENTITÉ | NOM | STATURE | DATE DU DERNIER EXAMEN | NOM DU MÉDECIN EXAMINATEUR ET/OU SON NUMÉRO |
|---|---|---|---|---|
| ☐ PILOTE<br>☐ COPILOTE | | Cm | | |

| ☐ MÉCANICIEN<br>☐ CONTRÔLEUR DU TA<br>☐ PASSAGER | AGE | SEXE<br>☐ HOMME<br>☐ FEMME | POIDS Kg | PROFIL | LIEU DE L'EXAMEN |
|---|---|---|---|---|---|

| SITUATION DE FAMILLE | EMPLOI | NIVEAU D'INSTRUCTION ATTEINT | ORIGINE ETHNIQUE |
|---|---|---|---|
| | | | |

**INCAPACITÉ**

| PROBABILITÉ | SOUDAINE TOTALE | INSIDIEUSE TOTALE | SOUDAINE PARTIELLE | INSIDIEUSE PARTIELLE |
|---|---|---|---|---|
| EXCLUE | | | | |
| POSSIBLE | | | | |
| PROBABLE | | | | |
| CONFIRMÉE | | | | |
| **PREUVE** | | | | |
| RAPPORTS ET ANTÉCÉDENTS MÉDICAUX | | | | |
| PILOTE OU TÉMOINS | | | | |
| AUTOPSIE | | | | |
| BIOCHIMIE | | | | |
| ANALYSE DE LA TRAJECTOIRE DE VOL | | | | |

**RENDEMENT**

| DÉTÉRIORATION GRAVE DES CAPACITÉS | DÉTÉRIORATION INSIDIEUSE DES CAPACITÉS (À LONG TERME) | CAPACITÉS RESTREINTES PRONONCÉES | CAPACITÉS RESTREINTES INSIDIEUSES |
|---|---|---|---|
| ☐ ÉVIDENTE | ☐ ÉVIDENTE | ☐ ÉVIDENTE | ☐ ÉVIDENTE |
| ☐ NON ÉVIDENTE FONCTIONNEMENT NORMAL CONSTATÉ | ☐ NON ÉVIDENTE FONCTIONNEMENT CONSTATÉ | ☐ EXCLUE SELON LES DOSSIERS MÉDICAUX | ☐ EXCLUE SELON LES DOSSIERS MÉDICAUX |
| ☐ NE POUVAIT ÊTRE EXAMINÉE | ☐ NE POUVAIT ÊTRE EXAMINÉ | | |

| $P_{O_S}$ | $P_{R_{O_B}}$ | | $P_{O_S}$ | $P_{R_{O_B}}$ | | $P_{O_S}$ | $P_{R_{O_B}}$ | | $P_{O_S}$ | $P_{R_{O_B}}$ | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | RÉSISTANCE À LA FATIGUE DE VOL | | | VIEILLISSEMENT PHYSIOLOGIQUE (OU FATIGUE) | | | PARALYSIE PARTIELLE | | | OBÉSITÉ CROISSANTE |
| | | FORTE ANGOISSE | | | LÉGÈRE ANGOISSE CHRONIQUE | | | OBÉSITÉ ET INCOMPATIBILITÉ ANTHROPOMÉTR. | | | PROTHÈSE (FONCTIONNEMENT RESTREINT) |
| | | PRÉOCCUPATION CORPORELLE (MALADIE-DOULEUR) | | | EXASPÉRATION ET CONTRARIÉTÉ | | | GROSSESSE | | | GROSSESSE |
| | | SURCHARGE SENSORIEL NERF À BOUT | | | FATIGUE CHRONIQUE DE VOL | | | PROTHÈSE | | | DALTONISME |
| | | DIÈTE INSUFFISANTE (HYPOGLYCÉMIE) | | | ÉVALUATION D'APTITUDE (CAPACITÉ DIMINUÉE) | | | VÊTEMENT ET RESTRICTION | | | CONDITION MÉDICAL OU TRAITEMENT |

| | ARTÉRIOSCLÉROSE | THROMBOSE CORONAIRE | ARYTHMIE | HYPERTENSION | AUTRE ÉTAT DU S.C.V. |
|---|---|---|---|---|---|
| ÉTAT MÉDICAL CONCERNANT LE SYSTÈME CARDIO-VASCULAIRE | ☐ LÉGÈRE | ☐ RÉCENTE | ☐ AIGUE | ☐ AUX LIMITES | ☐ ANTÉCÉDENT SEULEMENT |
| | ☐ MODÉRÉE | ☐ ANCIENNE | ☐ DE LONGUE DATE BÉNIGNE | ☐ MODÉRÉE NON TRAITÉE | ☐ ÉTAT GRAVE |
| | ☐ GRAVE | | ☐ ANTÉCÉDENTE | ☐ TRAITÉE | |

| | ULCÈRE PEPTIQUE | VÉSICULE BILIAIRE | NAUSÉE/VOMISSEMENT | FONCTIONNEMENT ANORM. DES INTESTINS | AUTRE ÉTAT GI |
|---|---|---|---|---|---|
| ÉTAT MÉDICAL CONCERNANT LE SYSTÈME GASTRO-INTESTINAL | ☐ ANTÉCÉDENT SEULEMENT | ☐ NON SYMPTOMATIQUE | ☐ CRISE AIGUË | ☐ CRISE AIGUË | ☐ ÉTAT GRAVE |
| | ☐ SOINS EN COURS | ☐ ANTÉCÉDENT DE COLIQUE | ☐ ANTÉCÉDENT | ☐ ANTÉCÉDENT | ☐ ANTECEDENT SEULEMENT |
| | ☐ COMPLEXE | | | | |

| | INFECTION AIGUË | INFECTION CHRONIQUE | HYPERVENTILATION | ENGORGEMENT (ASTHME) | AUTRE ÉTAT RS |
|---|---|---|---|---|---|
| ÉTAT MÉDICAL CONCERNANT LE SYSTÈME RESPIRATOIRE | ☐ ANTÉCÉDENT | ☐ ANTÉCÉDENT SEULEMENT | ☐ ANTÉCÉDENT | ☐ ANTÉCÉDENT | ☐ ANTÉCÉDENT |
| | ☐ ÉTAT PRÉSENT | ☐ TOUX CHRONIQUE | ☐ PREUVE DE L'ÉTAT | ☐ PREUVE DE CRISE AIGUË | ☐ ÉTAT GRAVE |
| | | ☐ TOUX AIGUË IRRITANTE | | | |

REMARQUES:

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

## ELEVATION VIEW OF LOCALE

SKETCH IN SIGNIFICANT RUNWAYS, OBSTRUCTIONS, FLIGHT PATH ETC. SHOW IMPORTANT DISTANCES & DIMENSIONS

## PLAN VIEW OF LOCALE

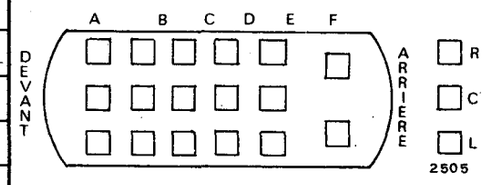
SKETCH IN SIGNIFICANT LANDING AREA, OBSTRUCTIONS, AIRCRAFT PATH ETC. SHOW IMPORTANT DISTANCES & DIMENSIONS, AND THE WIND VECTOR.

SEE MAP APPENDIX II.

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

## APTITUDE À L'ATTERRISSAGE BRUTAL – BLESSURES

| 2501 IDENTIFICATION | | 2502 GRAVITÉ DES BLESSURES | | 2503 AUTOPSIE | |
|---|---|---|---|---|---|
| | PILOTE | | | A | MÉDECIN |
| | COPILOTE | | | | |
| | AUTRE MEMBRE DE L'ÉQUIPAGE | F | MORTELLES | B | PATHOLOGISTE |
| | ÉQUIPAGE DE LA CABINE | S | GRAVES | C | SPÉCIALISTE-MÉDECIN AÉRONAUTIQUE |
| | PASSAGER | M | LÉGÈRES | D | AUTRE |
| | PERSONNE À L'EXTÉRIEUR DE L'AVION | N | AUCUNE | E | CAM PRÉSENT |




RANGÉE 2504

| 2506 DE FACE | |
|---|---|
| F | AVANT |
| S | CÔTÉ |
| R | ARRIÈRE |

L'ESPACE CI-DESSOUS EST SUFFISANT POUR PRÉCISER JUSQU'À DIX BLESSURES À LA PERSONNE MENTIONNÉE SUR CETTE PAGE. LA HUITIÈME REVISION "CLASSIFICATION INTERNATIONALE DES MALADIES" SECTION XVII, SERVIRA À DÉTERMINER LA CATÉGORIE DES BLESSURES.

INSCRIRE LE CODE PARTICULIER AINSI QU'UNE DESCRIPTION DES BLESSURES

INSCRIRE À DROITE LE CODE APPROPRIÉ À L'ÉVÉNEMENT QUI A PROVOQUÉ DES BLESSURES.

| ÉVÉNEMENT AYANT CAUSÉ DES BLESSURES | |
|---|---|
| A HEURTÉ L'INTÉRIEUR DE L'AÉRONEF À L'IMPACT | A |
| A ÉTÉ HEURTÉ PAR DES OBJETS VOLANTS À L'INTÉRIEUR DE L'AÉRONEF | B |
| BRULURES SEULEMENT | C |
| BRULURES À LA SUITE D'AUTRES BLESSURES | D |
| ECRASÉ DANS L'ÉPAVE | E |
| CONTACT AVEC L'HÉLICE ENTRÉE/ÉCHAPPEMENT | F |
| CHUTE HORS DE L'AÉRONEF (OU PROJETÉ) | G |
| HEURTÉ PAR L'AÉRONEF | H |
| TIRÉ SOUS L'EAU | J |
| HEURTÉ PAR LE ROTOR PRINCIPAL | K |
| HEURTÉ PAR LE ROTOR DE QUEUE | L |
| A HEURTÉ L'INTÉRIEUR DE L'AÉRONEF LORS D'UNE TURBULENCE | M |
| A ÉTÉ HEURTÉ PAR UNE PIÈCE DÉPLACÉE/STRUCTURE | N |

| | CODE | |
|---|---|---|
| 2507 | | 2508 |
| 2509 | | 2510 |
| 2511 | | 2512 |
| 2513 | | 2514 |
| 2515 | | 2516 |
| 2517 | | 2518 |
| 2519 | | 2520 |
| 2521 | | 2522 |
| 2523 | | 2524 |
| 2525 | | 2526 |

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

s.19(1)

## PERSONNEL INFORMATION – PILOT

| PILOT AT CONTROLS 0501 | | | | | | |
|---|---|---|---|---|---|---|
| | X A | PILOT-IN-COMMAND | G | INSTRUCTOR | E | NONE |
| | B | CO-PILOT | D | SUPERVISORY PILOT | Y | OTHER |
| | C | STUDENT | F | BOTH PILOTS | | |

## PILOT IN COMMAND

| AGE 0502 | SEX 0503 | SURNAME 0504 | INITIALS 0505 | LICENCE NUMBER 0506/0507 | | |
|---|---|---|---|---|---|---|
| | X M / F | MARTIN | G.M. | XDA - 867 | X / F | CANADIAN / FOREIGN |

| STATION OCCUPIED 0508 | | | | | | |
|---|---|---|---|---|---|---|
| | X A | PILOT | D | NAVIGATOR | G | OTHER |
| | B | SECOND IN COMMAND | E | REST POSITION | | |
| | C | FLIGHT ENGINEER | F | PASSENGER CABIN | | |

| SPECIAL FUNCTION 0509 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | A | NONE | C | COMPANY EXAMINER | E | TECHNICIAN | X | OTHER AIR SHOW PARTICIPANT |
| | B | INSTRUCTOR | D | MOT EXAMINER | F | STUDENT | | |

| PILOT LICENCES 0510 | | | | | | |
|---|---|---|---|---|---|---|
| | A | STUDENT | X P | AIRLINE TRANSPORT | V | PRIVATE ROTORCRAFT |
| | B | PRIVATE | T | GLIDER | W | COMMERCIAL ROTORCRAFT |
| | C | COMMERCIAL | U | FREE BALLOON | X | SENIOR COMMERCIAL ROTORCRAFT ENDORSEMENT |
| | 5 | SENIOR COMMERCIAL | I | NONE | Y | AIRLINE TRANSPORT ROTORCRAFT ENDORSEMENT |
| | H | OTHER | | | | |

| TYPE RATING 0511 | | | | | |
|---|---|---|---|---|---|
| | X Y | YES | X | NO | LAST CHECK ON TYPE 0512 WEEKS |

| INSTRUMENT RATING 0513/0514 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | X | AEROPLANE | | BOTH | X | CLASS I | LAST CHECK DEC. 11, 1975 | F FLIGHT |
| | | HELICOPTER | | | 2 | CLASS II | INSTRUMENT RATING 0515/0516 WEEKS | S SIMULATOR |

| INSTRUCTOR RATING 0517 | | | | |
|---|---|---|---|---|
| | Y | YES | X | NO |

CLASS- 0518

| CLASS RATINGS (Select up to 2) 0519 | | | | | | |
|---|---|---|---|---|---|---|
| | X A | AEROPLANE SE LAND | D | AEROPLANE ME SEA | H | HELICOPTER TYPE |
| | X B | AEROPLANE ME LAND | AC | AEROPLANE SE LAND & SEA | Y | OTHER |
| | C | AEROPLANE SE SEA | BD | AEROPLANE ME LAND & SEA | | |

| ENDORSEMENTS 0520 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | X N | NIGHT | B | BLOCK AIRSPACE | A | AEROBATIC | T | TRSA |

FLYING TIMES (to nearest hour – if unknown complete with X)

| | ALL TYPES | THIS TYPE | DUAL THIS TYPE | THIS U/C CONFIG | SINGLE ENGINE | MULTI ENGINE | ACTUAL INSTRUMENT | SIMULATED INSTRUMENT | NIGHT | ROTORCRAFT |
|---|---|---|---|---|---|---|---|---|---|---|
| TOTAL HOURS | | | | | | | | | | |
| HRS LAST 90 DAYS | | | | | | | | | | |

| HOURS LAST 30 DAYS 0541 | HOURS LAST 3 DAYS 0542 | HOURS LAST 24 HOURS 0543 | DUTY TIME PRIOR TO OCCURRENCE 0544 | REST TIME BEFORE DUTY 0545 | HOURS AWAKE SINCE LAST REST PERIOD 0546 | LANDINGS ON TYPE LAST 90 DAYS (FIXED WING) 0547 | TOTAL INSTRUMENT LAST 30 DAYS 0548 |
|---|---|---|---|---|---|---|---|
| | | | X | X | X | X | X |

| MEDICAL STATUS 0549 | | | | | |
|---|---|---|---|---|---|
| | X | VALID MEDICAL WITH NO WAIVERS/LIMITATIONS | 2 | VALID MEDICAL WITH WAIVERS/LIMITATIONS | 3 NON-VALID MEDICAL |

| FLYING SCHOOL | ATC LICENCE NUMBER | CODE 0550 |
|---|---|---|
| | | |

| PRIME INSTRUCTOR - NAME 0551/0552 | | | | | |
|---|---|---|---|---|---|
| | F | FULL-TIME INSTRUCTOR AT SCHOOL | | DUAL LAST 6 MONTHS | DUAL LAST YEAR |
| | P | PART-TIME INSTRUCTOR AT SCHOOL | | | |
| FLIGHT TEST EXAMINER - NAME & LICENCE 0553/0554 | M | MOT | C COMPANY | | |
| | D | DFTE | | 0555 | 0556 |

NOTES:

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

## APTITUDE À L'ATTERRISSAGE BRUTAL (SYSTÈMES ET PROCÉDURES)

| SYSTÈMES/ PROCÉDURES GÉNÉRALES | SYSTÈMES/PROCÉCURES SPÉCIFIQUES | EXIGÉ | À BORD OU DISPONIBLE | | | UTILISÉ PORTÉ | | | A CAUSÉ/ CONTRIBUÉ AUX BLESSURES | | | A MINIMISÉ/ EMPÊCHÉ LES BLESSURES | | | A FAIT DÉFAUT | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | OUI | NON | ? | OUI | NON | ? | OUI | NON | ? | OUI | NON | ? | OUI | NON | ? |
| SYSTÈME D'ATTACHES DE L'ÉQUIPAGE | CEINTURES DE SÉCURITÉ 2401/2402 | | | | | | | | | | | | | | | | |
| | BRETELLES DE SÉCURITÉ 2403/2404 | | | | | | | | | | | | | | | | |
| | COURROIE D'ATTACHE DE CEINTURE 2405/2406 | | | | | | | | | | | | | | | | |
| | ROULEAU D'INERTIE 2407/2408 | | | | | | | | | | | | | | | | |
| | GUIDE DE BRETELLES 2409/2410 | | | | | | | | | | | | | | | | |
| SYSTÈMES D'ATTACHES DES PASSAGERS | CEINTURES DE SÉCURITÉ 2411/2412 | | | | | | | | | | | | | | | | |
| | BRETELLES DE SÉCURITÉ 2413/2414 | | | | | | | | | | | | | | | | |
| | COURROIE D'ATTACHE DE CEINTURE 2415/2416 | | | | | | | | | | | | | | | | |
| | ROULEAU D'INERTIE 2417/2418 | | | | | | | | | | | | | | | | |
| | GUIDE DE BRETELLES 2419/2420 | | | | | | | | | | | | | | | | |
| SIÈGES | SIÈGE/PILOTE 2421/2422 | | | | | | | | | | | | | | | | |
| | SIÈGE/COPILOTE 2423/2424 | | | | | | | | | | | | | | | | |
| | PILOTE EXAMINATEUR 2425/2426 | | | | | | | | | | | | | | | | |
| | SIÈGE/PASSAGER 2427/2428 | | | | | | | | | | | | | | | | |
| ENVIRONNEMENT IMMÉDIAT DU POSTE DE PILOTAGE | DESSIN 2429/2430 | | | | | | | | | | | | | | | | |
| | LOCALISATION 2431 | | | | | | | | | | | | | | | | |
| | ATTACHES 2432/2433 | | | | | | | | | | | | | | | | |
| ENVIRONNEMENT IMMÉDIAT DE LA CABINE | DESSIN 2434/2435 | | | | | | | | | | | | | | | | |
| | LOCALISATION 2436 | | | | | | | | | | | | | | | | |
| | ATTACHES 2437/2438 | | | | | | | | | | | | | | | | |
| COMPARTIMENT À BAGAGES | ENDROIT 2439 | | | | | | | | | | | | | | | | |
| | ATTACHES 2440/2441 | | | | | | | | | | | | | | | | |
| MARCHANDISES | ENDROIT 2442 | | | | | | | | | | | | | | | | |
| | ATTACHES 2443/2444 | | | | | | | | | | | | | | | | |
| ÉVACUATION D'URGENCE | PORTES DE L'AÉRONEF 2445/2446 | | | | | | | | | | | | | | | | |
| | SORTIES DE SECOURS 2447/2448 | | | | | | | | | | | | | | | | |
| | RAMPE D'ÉVACUATION 2449/2450 | | | | | | | | | | | | | | | | |
| | CABLES 2451/2452 | | | | | | | | | | | | | | | | |
| | ÉCLAIRAGE DE SORTIE 2453/2454 | | | | | | | | | | | | | | | | |
| | ÉCLAIRAGE DE SECOURS INTÉRIEUR 2455/2456 | | | | | | | | | | | | | | | | |
| | SURVEILLANCE 2457/2458 | | | | | | | | | | | | | | | | |
| | AVERTISSEMENT 2459/2460 | | | | | | | | | | | | | | | | |
| | AUTRE 2461/2462 | | | | | | | | | | | | | | | | |
| AMERRISSAGE | GILET DE SAUVETAGE – ACCESSIBILITÉ 2463/2464 | | | | | | | | | | | | | | | | |
| | GILET DE SAUVETAGE – TYPE 2465/2466 | | | | | | | | | | | | | | | | |
| | RADEAU DE SAUVETAGE – ACCESSIBILITÉ 2467/2468 | | | | | | | | | | | | | | | | |
| | RADEAU DE SAUVETAGE – TYPE 2469/2470 | | | | | | | | | | | | | | | | |

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

## AIRCRAFT INFORMATION

| MANUFACTURER 0800 | MODEL 0801 | TOTAL AIRFRAME TIME 0802 | TSO 0803 |
|---|---|---|---|
| DEHAVILLAND | DH 83C | 2910 HRS | 44 HRS |

| AIRCRAFT WEIGHT 0804 | | CENTRE OF GRAVITY 0805 | | |
|---|---|---|---|---|
| X | AT OR BELOW AUTHORIZED WEIGHT | A | EXCEEDED FORWARD LIMIT | X C WITHIN LIMITS |
| B | ABOVE AUTHORIZED WEIGHT | B | EXCEEDED AFT LIMIT | D EXCEEDED LATERAL LIMITS |

| CALCULATED AUW 0806/0807 | C OF G POSITION | C OF G PERMISSABLE RANGE |
|---|---|---|
| 1954.2 | OR 16.30 INCHES; ____ %MAC; X AFT OF DATUM; FORWARD OF DATUM | ____ %MAC OR 12.0 IN TO 17.75 IN; TO ____ %MAC; X AFT OF DATUM; FORWARD OF DATUM |

| FUEL TYPE 0808 | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | A X | 80/87 | L | AUTOMOBILE GASOLINE | G | JP-3 | J | JP-6 | Y | OTHER |
| | C | 100/130 | E | KEROSENE | H | JP-4 | K | MIXED FUEL | | |
| | D | 115/145 | F | JP-1 | I | JP-5 | Z | UNKNOWN | | |

## POWERPLANT & PROPELLER INFORMATION

| | NO. 1 ENGINE 0809 | NO. 2 ENGINE 0810 | NO. 3 ENGINE 0811 | NO. 4 ENGINE 0812 | NO. 1 PROP. 0813 | NO. 2 PROP. 0814 | NO. 3 PROP. 0815 | NO. 4 PROP. 0816 |
|---|---|---|---|---|---|---|---|---|
| TSO HRS | | | | | | | | |

AIRCRAFT EQUIPPED TO MINIMUM IFR STANDARD ▶ Y YES X NO

| AIRCRAFT EQUIPPED FOR PRECISION APPROACHES 0817 | | | | | | |
|---|---|---|---|---|---|---|
| | A | CAT I | C | CAT III A | E | CAT III C |
| | B | CAT II | D | CAT III B | | |

| RADAR (AIRBORNE WEATHER) 0818 | | | | | | |
|---|---|---|---|---|---|---|
| | A | SERVICEABLE NOT IN OPERATION | C | OPERATED SATISFACTORILY | E | NOT INSTALLED |
| | B | UNSERVICEABLE | D | OPERATED UNSATISFACTORILY | F | INSTALLED OPERATION NOT REPORTED |

| STALL WARNING/ PREVENTION SYSTEM 0819 | | | | | WARNING INDICATOR 0820 ▶ | | |
|---|---|---|---|---|---|---|---|
| | A | WARNING INDICATOR INSTALLED | D | WARNING INDICATOR & STICKPUSHER INSTALLED | | V | VISUAL |
| | C | STICKPUSHER INSTALLED | B | WARNING INDICATOR OR STICKPUSHER NOT INSTALLED | | A | AURAL |

## AIRCRAFT EQUIPMENT & SYSTEMS

| AVAIL | IN USE | DESCRIPTION | | AVAIL | IN USE | DESCRIPTION | |
|---|---|---|---|---|---|---|---|
| | | VHF COMMUNICATION | 0821 | | | AUTOPILOT | 0838 |
| | | HF COMMUNICATION | 0822 | | | ANTI-COLLISION LIGHTS | 0839 |
| | | UHF COMMUNICATION | 0823 | | | FLIGHT CREW OXYGEN | 0840 |
| | | VOR | 0824 | | | PASSENGER OXYGEN | 0841 |
| | | ADF | 0825 | | | AUXILIARY POWER | 0842 |
| | | TACAN | 0826 | | | RADAR ALTIMETER | 0843 |
| | | DME | 0827 | | | GROUND PROXIMITY WARNING | 0844 |
| | | ILS COMPLETE SYSTEM | 0828 | | | ALTITUDE ALERTING | 0845 |
| | | ILS LOCALIZER ONLY | 0829 | | | COLLISION AVOIDANCE | 0846 |
| | | ILS GLIDE PATH ONLY | 0830 | | | AREA NAVIGATION | 0847 |
| | | TRANSPONDER | 0831 | | | VLF NAVIGATION | 0848 |
| | | TRANSPONDER (MODE C) | 0832 | | | MLS | 0849 |
| | | ENGINE ANTI-ICE/DE-ICE | 0833 | | | HEAD-UP DISPLAY | 0850 |
| | | PROPELLER DE-ICE | 0834 | | | INERTIAL NAVIGATION | 0851 |
| | | WINDSHIELD ANTI-ICE/DE-ICE | 0835 | | | INTEGRATED FLIGHT DATA | 0852 |
| | | AIRFRAME ANTI-ICE/DE-ICE | 0836 | | | TURBULENCE DETECTION | 0853 |
| | | DUAL CONTROLS | 0837 | | | | |

## AIRCRAFT CONFIGURATION AT IMPACT

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LANDING GEAR 0854 | F X | FIXED | U | UP | T | TRANSIT | D | DOWN | AMPHIBIOUS FLOATS-WHEELS 0855 | U | UP | D | DOWN |
| FLAPS 0856 | N X | NONE | | | U | UP | | | P | PARTIAL | | D | DOWN |
| POWER 0857 | N | NONE | P | PARTIAL | | | F X | FULL | R | REVERSE | | A | ASSYMETRIC |
| MIXTURE 0858 | N X | RICH | | | L | LEAN | | | A | AUTO | | C | IDLE CUT-OFF |
| CARB HEAT 0859 | H | HOT | | | C X | COLD | | | P | PARTIAL | | X | NOT INSTALLED |
| INDUCTION HEAT 0860 | H | HOT | | | C | COLD | | | P | PARTIAL | | X X | NOT INSTALLED |

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

## ENQUÊTE

| ENQUÊTE PAR | NOMBRE D'ENQUÊTEURS | | AIDE REÇUE DE DNHW | AIDE REÇUE DU LAB. DE L'ADM. CENT | ENQUÊTE PAR COURRIER |
|---|---|---|---|---|---|
| | CA1 | T1 | 2103 | 2104 | 2105 |
| | 2101 | 2102 | OUI / NON | OUI / NON | PARTIELLEMENT / NON |
| | AUTRE AIDE | | | | 2106 |

| PAGES PRÉSENTÉES | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | 6 | 7 | (8) | 9 | (10) | 11 | C1 | C2 | C3 | C4 |
| | (12) | 13 | (14) | 15 | 16 | 17 | (18) | (19) | (20) | (21) | | M1 | M2 | M3 | |

| DOCUMENTS ANNEXES | | | | | | | |
|---|---|---|---|---|---|---|---|
| ENTREVUES 2107 | A | ÉQUIPAGE DE VOL | E | PERSONNEL D'ENTRETIEN | K | MÉDECIN PERSONNEL |
| | B | TÉMOINS OCCULAIRES | F | ÉPOUX/ÉPOUSE | L | DIRECTION |
| | C | INSTRUCTEUR/PILOTE INSPECTEUR | G | PASSAGERS | | |
| | D | ÉQUIPAGE DE LA CABINE | H | EXPÉDITEUR | | |
| RAPPORTS 2108 | A | MATÉRIAUX DE LABO | D | MÉDICAL | G | CORONER |
| | B | TECHNIQUES | E | DCIEM | H | POLICE |
| | C | ENREGISTREUR DE DONNÉES | F | PATHOLOGISTE | K | LABO DE CRIMINOLOGIE |
| DONNÉES D'OPÉRATION 2109 | A | PERFORMANCE | D | TRANSCRIPTION DE RUBAN ATS | G | LISTE DES BLESSÉS |
| | B | CONDITIONS MÉTÉOROLOGIQUES | E | TRANSCRIPTION DE RUBAN CVR | | |
| | C | PHOTOGRAPHIES | F | CARTES ET GRAPHIQUES | | |

| ENQUÊTE | TEMPS ÉCOULÉ ENTRE L'ACCIDENT ET L'ARRIVÉE DE L'ENQUÊTEUR SUR LES LIEUX | TEMPS ÉCOULÉ ENTRE L'ACCIDENT ET LA RÉCEPTION DE LA NOTIFICATION PAR LA RÉGION |
|---|---|---|
| | 2110 Heures | 2111 Heures |

SIGNATURE DE L'ENQUÊTEUR

OBSERVATIONS DU SURINTENDANT RÉGIONAL

SURINTENDANT RÉGIONAL — DATE

REMARQUES:

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

## METEOROLOGICAL INFORMATION

| | | | | | |
|---|---|---|---|---|---|
| WEATHER BRIEFING 1001 | X | BRIEFING AVAILABLE & PROVIDED | N | BRIEFING FACILITIES NOT USED |
| | U | BRIEFING NOT AVAILABLE | Z | NOT REPORTED |

| BRIEFING AGENCY 1002 | | | | | | |
|---|---|---|---|---|---|---|
| | A | NONE | D | COMPANY FACILITY | G | OTHER OBSERVER |
| | B | ACCREDITED FORECASTER | E | OTHER PILOT | X | OTHER ALL PILOTS BRIEFED PRIOR TO FLYING IN THE AIR SHOW. |
| | C | ACCREDITED BRIEFER | F | SELF BRIEFING | | |

| | | | | |
|---|---|---|---|---|
| WEATHER VS FORECAST 1003 | X | SUBSTANTIALLY CORRECT | E | CONSIDERABLY WORSE THAN FORECAST |
| | C | CONSIDERABLY BETTER THAN FORECAST | | |

### WEATHER CONDITIONS AT SITE OF OCCURRENCE

| | | | | |
|---|---|---|---|---|
| WIND DIRECTION 1004: 328° °M | RELATIVE BEARING OF WIND TO TRACK OF AIRCRAFT (A, B, C, D, E, F, G, H) | CLOUD BASE HEIGHT 1007 | TEMPERATURE 1010: 17 °C | DEWPOINT 1013: 05 °C |
| WIND SPEED 1005: 20 GUSTING 26 Knots | CALM 1006 | VISIBILITY 1008: 15+ | DENSITY ALTITUDE 1011 Ft | DIFFERENCE BETWEEN DEWPOINT AND TEMPERATURE 1014: 12 °C |
| | | RVR 1009 | QNH (ALTIMETER SETTING) 1012: 30.02 | |

| SKY CONDITION 1015 | | | | | | |
|---|---|---|---|---|---|---|
| | A | CLEAR | E | BROKEN/LOWER SCATTERED | I | OBSCURED |
| | X | SCATTERED ABOVE 1000' | G | OVERCAST/LOWER SCATTERED | H | PARTIALLY OBSCURED |
| | C | SCATTERED BELOW 1000' | F | OVERCAST | | |
| | D | BROKEN | | | | |

| RESTRICTING PHENOMENA 1016 | | | | | | |
|---|---|---|---|---|---|---|
| | A | DUST | F | SMOKE | K | PRECIPITATION |
| | B | FOG | G | BLOWING DUST | X | NONE |
| | C | SHALLOW FOG | H | SANDSTORM | Y | OTHER |
| | E | FREEZING FOG | I | BLOWING SNOW | | |

| TYPE OF PRECIPITATION (Select up to 2) 1017 | | | | | | |
|---|---|---|---|---|---|---|
| | C | DRIZZLE | F | SNOW | I | THUNDERSHOWERS |
| | D | RAIN | G | SNOW GRAINS/ICE PELLETS | X | NONE |
| | E | RAIN SHOWERS | H | SNOW SHOWERS | Y | OTHER |
| | A | HAIL | J | FREEZING DRIZZLE | | |
| | B | SLEET | K | FREEZING RAIN | | |

| SIGNIFICANT WEATHER (Select up to 3) 1018 | | | | | | |
|---|---|---|---|---|---|---|
| | A | TURBULENCE IN CLOUD | H | VARIABLE CLOUD BASE | C | TORNADO |
| | B | CLEAR AIR TURBULENCE | M | LIGHT PRECIPITATION | D | HURRICANE, TYPHOON |
| | G | SEVERE LINE SQUALL | L | HEAVY PRECIPITATION | E | MOUNTAIN WAVE |
| | J | WIND VARIABLE | R | THUNDERSTORM | S | NOT SIGNIFICANT |
| | X | WIND GUSTY | Q | SEVERE ICING | Y | OTHER |
| | K | WIND GUSTY & VARIABLE | N | TEMPERATURE BELOW 0°C | | |

### CONDITIONS AT POINT OF FIRST IRREGULARITY OF FLIGHT (If applicable)

| | | | | | |
|---|---|---|---|---|---|
| AIRCRAFT ALTITUDE ASL 1019: 551 | TEMPERATURE 1022: 17 °C | RESTRICTING PHENOMENA 1025 | SIGNIFICANT WEATHER 1027 | | |
| GENERAL TERRAIN ELEV. ASL 1020: 251 | DEWPOINT 1023: 05 °C | PRECIPITATION 1026 | DEGREE OF TURBULENCE 1028 | L | LIGHT |
| AIRCRAFT HEIGHT AGL 1021: 300 | DIFFERENCE BETWEEN DEWPOINT & TEMPERATURE 1024: 12 °C | | | M | MODERATE |
| | | | | S | SEVERE |

NOTES:

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

## ANALYSE DE L'ÉVÉNEMENT

POURQUOI — DÉCRIRE DANS QUELLE MESURE L'ENVIRONNEMENT, L'AÉRONEF ET LE PERSONNEL EN CAUSE ONT INFLUÉ SUR L'ÉVÉNEMENT. ÉNUMÉREZ LES FACTEURS AYANT CAUSÉ L'INCIDENT OU INFLUÉ SUR LES CIRCONSTANCES QUI ONT ENTOURÉ CE DERNIER.

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

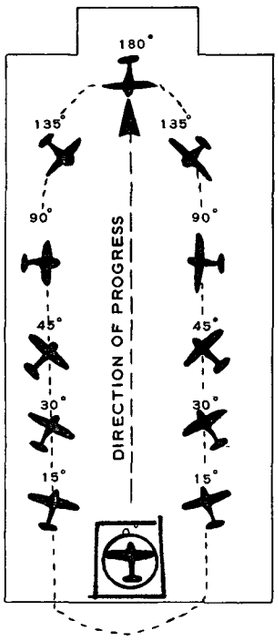
## WRECKAGE & IMPACT INFORMATION

1101 WRECKAGE RECOVERED [X] YES [ ] NO

| TYPE OF TERRAIN 1102 | | | | |
|---|---|---|---|---|
| A | MOUNTAINOUS | C | ROLLING | |
| B | HILLY | D | [X] LEVEL/FLAT | |

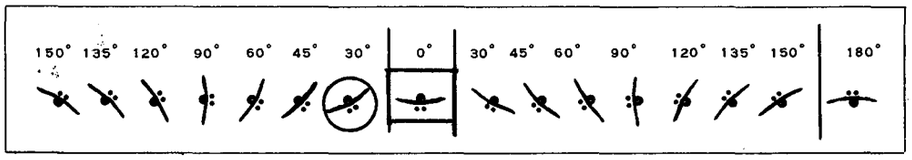
| | | | | | | |
|---|---|---|---|---|---|---|
| SURFACE CONDITION GENERAL 1103 | 3 | HARD | H | TREE COVERED | [X] | WATER |
| | F | ROCKY | I | BUILT-UP (CITY-DENSE) | N | SWAMP |
| | G | SANDY | M | BUILT-UP (SUBURBAN-COUNTRY-SPARSE) | Y | OTHER |
| SURFACE CONDITION SPECIFIC 1104 | O | PAVED | S | MUD, WET SOIL | 1 | SNOW |
| | P | LOOSE | T | [X] HIGH WAVES | 2 | ICE |
| | Q | COMPACT | U | SWELLS | Y | OTHER |
| | J | CULTIVATED | V | CALM/GLASSY WATER | | |
| | R | LOW VEGETATION/GRASS | E | FROZEN GROUND | | |

| ELEVATION OF FIRST POINT OF IMPACT 1105 | LENGTH OF WRECKAGE TRAIL 1106 | IMPACT ANGLE (RELATIVE TO TERRAIN/OBJECT) 1107 |
|---|---|---|
| 251 Feet | N/A Feet | [redacted] Degrees |
| 76.5 Metres | Metres | |

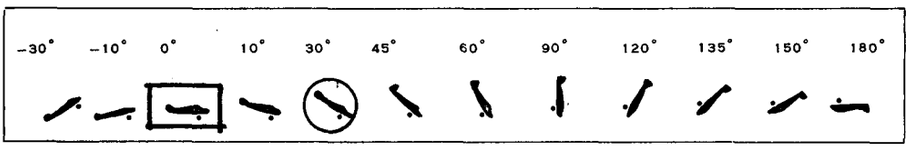



- CIRCLE THE SILHOUETTES WHICH MOST CLOSELY DESCRIBE ANGLE OF GROUND CONTACT
- DRAW A SQUARE AROUND SILHOUETTES TO DESCRIBE ATTITUDE OF AIRCRAFT AT REST

REAR ELEVATION 1108




STARBOARD ELEVATION 1109




| AERODROME PROXIMITY 1112 | | | | | | | DIRECTION FROM AERODROME TO SCENE OF OCCURRENCE 1113 |
|---|---|---|---|---|---|---|---|
| | A | ON AIRPORT | F | WITHIN .4 Km | [X] K | WITHIN 4.8 Km | 290° °M |
| | B | ON SEAPLANE BASE | G | WITHIN .8 Km | L | WITHIN 6.4 Km | |
| | C | ON HELIPORT | H | WITHIN 1.2 Km | M | WITHIN 8 Km | |
| | D | ON/BARGE/SHIP/PLATFORM | I | WITHIN 1.6 Km | N | BEYOND 8 Km | |
| | E | IN CIRCUIT | J | WITHIN 3.2 Km | | | |

COMPLETE P13 IF AIRCRAFT WAS OPERATING INTO OR OUT OF AN AERODROME WITHIN 8 KM

OFF AIRPORT OR WATER AREA USED FOR TAKEOFF/LANDING

| LENGTH 1114 | ft | METRES | WIDTH 1115 | ft | METRES |
|---|---|---|---|---|---|
| | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| WATER CONDITIONS (Select up to 2) 1116 | A | GLASSY | C | LIGHT SWELL | E | HEAVY SWELLS |
| | B | WAVES < 0.3 metres | D | WAVES .3m to 1m. | F | WAVES > 1 metre |
| WATER SURFACE HAZARDS (Select up to 2) 1117 | A | SAND BAR | C | SUBMERGED OBSTRUCTION | E | BOATS |
| | B | SHOAL | D | FLOATING OBJECTS | Y | OTHER |
| HAZARDS BORDERING AREA 1118 | A | HIGH GROUND | D | FENCE | HEIGHT ABOVE SURFACE | |
| | B | WIRES/POLES | E | BUILDINGS | | |
| | C | TREES | F | OTHER | | |

NOTES:

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

## ÉPANDAGE AÉRIEN

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| GENRE D'OPÉRATIONS 1701 | A | PULVÉRISATION DE CULTURES | F | ENGRAIS (LIQUIDE) | K | ARROSAGE DE VILLES | Q | CHASSE AUX OISEAUX |
| | B | PULVÉRISATION-AUTRE | G | DÉFOLIATION (POUDRE) | L | AGITATION D'ARBRES | R | ESSAI |
| | C | ENSEMENSEMENT DE CULTURES | H | DÉFOLIATION (LIQUIDE) | M | MESURES CONTRE LE GEL | S | TRANSBORDEMENT |
| | D | ENSEMENCEMENT DE FORÊTS | I | ARROSAGE DE CULTURES | N | FAIRE TOMBER LES FRUITS DES ARBRES | T | PRATIQUE |
| | E | ENGRAIS (POUDRE) | J | ARROSAGE DE FORÊTS | P | RELEVÉ DE RÉGION | W | CONTRÔLE D'INCENDIE |
| GENRE DE CULTURES/TERRAIN 1702 | A | HARICOTS | G | VERGERS | M | PÂTURAGE | S | ÉPINARDS |
| | B | TRÈFLE | H | RAISINS | N | POIS | T | FRAISES |
| | C | MAÏS | I | CHAMPS DE GRAINS | P | PATATES | U | TABAC |
| | E | LIN | J | LAITUE | Q | RIZ | V | TOMATES |
| | F | FORÊT/ARBRES | L | DÉMOUSTICATION | R | SAUGE | Y | AUTRE |
| PRODUIT CHIMIQUE UTILISÉ 1703 | A | SEC-TOXIQUE | B | SEC-NON TOXIQUE | C | LIQUIDE-TOXIQUE | D | LIQUIDE-NON TOXIQUE |
| INFLUENCE TOXIQUE SUR LE PILOTE 1704 | A | NON AFFECTÉ | B | AFFECTÉ EN VOL | C | AFFECTÉ AU SOL AVANT LE VOL | | |
| LE PILOTE A ÉTÉ EXPOSÉ DURANT 1705 | A | MOINS DE 15 MIN. | D | MOINS DE 2 HEURES | G | MOINS DE 5 HEURES | | |
| | B | MOINS DE 30 MIN. | E | MOINS DE 3 HEURES | H | PLUS DE 5 HEURES | | |
| | C | MOINS D'UNE HEURE | F | MOINS DE 4 HEURES | | | | |
| ANTI-TOXINES 1706 | A | DISPONIBLES ET UTILISÉES | B | DISPONIBLES-NON UTILISÉES | C | NON DISPONIBLES | | |
| CEINTURES DE SÉCURITÉ 1707 | A | NON ATTACHÉES | B | ATTACHÉES CORRECTEMENT | C | MAL ATTACHÉES | D | DÉFECTUEUSES |
| ÉQUIPEMENT RESPIRATOIRE 1708 | A | DISPONIBLE-UTILISÉ | B | DISPONIBLE NON UTILISÉ | C | NON DISPONIBLE | | |
| CASQUE PROTECTEUR 1709 | A | DISPONIBLE-UTILISÉ | B | DISPONIBLE NON UTILISÉ | C | NON DISPONIBLE | | |

| VÊTEMENTS SPÉCIAUX 1710 | | GANTS 1711 | | LUNETTES PROTECTRICES 1712 | | GARNITURE ANTICHOC DU POSTE DE PILOTAGE | | GARNITURE ANTICHOC 1714 | |
|---|---|---|---|---|---|---|---|---|---|
| A | UTILISÉS | A | UTILISÉS | A | UTILISÉES | A | INSTALLÉE | A | INSTALLÉE |
| B | NON UTILISÉS | B | NON UTILISÉS | B | NON UTILISÉES | B | NON-INSTALLÉE | B | NON INSTALLÉE |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| EMPLACEMENT DU RÉSERVOIR/CHUTE 1715 | A | À L'AVANT DU PILOTE | C | AILES | E | CÔTÉS | Y | AUTRE |
| | B | À L'ARRIÈRE DU PILOTE | D | VENTRE | F | REMPLI À L'ÉLINGUE | | |
| OBSTACLES Choisir 2 au plus 1716 | A | ARBRES | C | CLÔTURES | E | PYLONES ÉLECTRIQUES | Y | AUTRE |
| | B | FILS/POTEAUX | D | BÂTIMENTS | F | AUCUN | | |
| TERRAIN SOUS TRAITEMENT 1717 | A | UNI-PLAT | C | ACCIDENTÉ | E | MARÉCAGEUX/EAU | | |
| | B | ONDULÉ | D | MONTAGNEUX | F | ARBRES ABONDANTS | | |
| VOL PAR RAPPORT AU VENT 1718 | A | VENT TRAVERSIER | B | VENT DEBOUT | C | VENT ARRIÈRE | D | CALME |
| PROCÉDURE DE VIRAGE 1719 | A | DÉBUT D'UN VIRAGE CONVENTIONEL | C | DEUXIÈME 1/3 DU VIRAGE | | | | |
| | B | PREMIER 1/3 DU VIRAGE | D | DERNIER 1/3 DU VIRAGE | | | | |

| CONTRÔLE DES RÉCOLTES HEURES DE VOL DU PILOTE 1720 | ALTITUDE - ZONE SOUS TRAITEMENT 1721 | PRODUITS CHIMIQUES UTILISÉS 1722 |
|---|---|---|

REMARQUES:

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

## SURVIVAL DATA

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| SURVIVABILITY 1401 | X A | SURVIVABLE | C | NON SURVIVABLE | POST CRASH ESCAPE 1402 | A | UNHAMPERED | C | NOT APPLICABLE |
| | B | PARTIALLY SURVIVABLE | D | AIRCRAFT MISSING | | X B | WITH DIFFICULTY | D | UNDETERMINED |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| IMPACT DAMAGE-AIRCRAFT WITHOUT PASSENGER CABIN 1403 | A | EXTREME | C | MODERATE | E | NONE | | |
| | B | SEVERE | D | MINOR | | | | |

| IMPACT DAMAGE-AIRCRAFT WITH PASSENGER CABIN | COCKPIT 1404 | | FORWARD CABIN 1405 | | CENTRE CABIN 1406 | | AFT CABIN 1407 | |
|---|---|---|---|---|---|---|---|---|
| | A | EXTREME | X A | EXTREME | A | EXTREME | A | EXTREME |
| | B | SEVERE | B | SEVERE | B | SEVERE | B | SEVERE |
| | X C | MODERATE | C | MODERATE | C | MODERATE | C | MODERATE |
| | D | MINOR | D | MINOR | D | MINOR | D | MINOR |
| | E | NONE | E | NONE | E | NONE | E | NONE |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| SEATING CONFIGURATION 1408 | X A | FORWARD FACING | C | COMBINATION FORWARD & REAR | | | | |
| | B | REAR FACING | D | OTHER | | | | |
| SEAT BELT SIGN 1409 | X C | NOT INSTALLED | A | ON | B | OFF | | |

| SHOULDER HARNESS | PILOT 1410 | | | | CO-PILOT 1411 | | | |
|---|---|---|---|---|---|---|---|---|
| | A | INSTALLED/USED/HELD | C | INSTALLED/NOT USED | A | INSTALLED/USED/HELD | C | INSTALLED/NOT USED |
| | B | INSTALLED/USED/FAILED | X D | NOT INSTALLED | B | INSTALLED/USED/FAILED | D | NOT INSTALLED |

| | | | | |
|---|---|---|---|---|
| EVACUATION ASSISTANCE BY GROUND RESCUE GROUPS 1412 | X A | RENDERED EFFECTIVELY | C | AVAILABLE-UNABLE TO RENDER ASSISTANCE |
| | B | ARRIVED TOO LATE | X | NOT AVAILABLE |

| NUMBER OF SEATS FAILED 1413 | NUMBER OF SEAT BELTS FAILED 1414 | FATALITIES FROM BURNS 1415 | FATALITIES FROM TOXIC FUMES 1416 |
|---|---|---|---|
| ONE | NIL | 0 | 0 |

| MEANS OR METHOD OF EXIT (Select up to 4) 1417 | | | | | | | |
|---|---|---|---|---|---|---|---|
| | X A | MAIN DOOR FORWARD | E | AUXILIARY DOOR AFT | I | COCKPIT WINDOW |
| | B | MAIN DOOR AFT | F | AUXILIARY DOOR OTHER | J | OTHER WINDOW |
| | C | MAIN DOORS FORE & AFT | G | MAIN & AUXILIARY DOORS | K | BREAK IN FUSELAGE |
| | D | AUXILIARY DOORS FORWARD | H | EMERGENCY WINDOW EXITS | L | THROWN CLEAR |

| EVACUATION TIME 1418 | | | | | | | NUMBER OF OCCUPANTS EVACUATED 1419 | NUMBER OF OCCUPANTS NOT EVACUATED 1420 |
|---|---|---|---|---|---|---|---|---|
| | A | 0-30 SEC | D | 91-120 SEC | G | 4-5 MIN | TWO | 0 |
| | B | 31-60 SEC | E | 2-3 MIN | H | OVER 5 MIN | | |
| | C | 61-90 SEC | X F | 3-4 MIN | Z | UNKNOWN | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| CHUTE/SLIDE 1421 | A | AVAILABLE USED EFFECTIVELY | B | AVAILABLE-USED-MALFUNCTIONED | C | AVAILABLE-NOT USED | X D | NOT AVAILABLE |

| ROPE 1422 | | LADDER 1423 | | EMERGENCY EXITS 1424 | | EMERGENCY LIGHTS 1425 | |
|---|---|---|---|---|---|---|---|
| A | AVAILABLE-USED | A | AVAILABLE-USED | A | USED-FUNCTIONED NORMALLY | A | ENERGIZED PROPERLY |
| B | AVAILABLE-NOT USED | B | AVAILABLE-NOT USED | B | NOT USED-FUNCTIONED NORMALLY | B | DID NOT ENERGIZE |
| X C | NOT AVAILABLE | X C | NOT AVAILABLE | C | WOULD NOT OPEN | X C | NOT AVAILABLE |

| | | | | | | |
|---|---|---|---|---|---|---|
| DITCHING-WATER CONDITIONS & AIRCRAFT INTEGRITY 1426 | | OPEN SEA | | CALM SURFACE | | AIRCRAFT BROKE UP |
| | | SHELTERED AREA | | ROUGH SURFACE | | AIRCRAFT REMAINED INTACT |

| | | |
|---|---|---|
| DITCHING-AIRCRAFT SANK/STAYED AFLOAT 1427 | A | SANK IMMEDIATELY (INSUFFICIENT TIME FOR EVACUATION) |
| | B | STAYED AFLOAT-SHORT PERIOD OF TIME (PARTIAL EVACUATION) |
| | C | STAYED AFLOAT-EXTENDED PERIOD (COMPLETE EVACUATION) |
| | D | STAYED AFLOAT-EXTENDED PERIOD AFTER EVACUATION |

NOTES:

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

## DONNÉES CONCERNANT L'INCENDIE

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| L'INCENDIE A DÉBUTÉ 1501/1502 | A | EN VOL | C | PLUS D'UNE MINUTE APRÈS L'IMPACT | E | INDÉTERMINÉ | |
| | B | MOINS DE 1 MINUTE APRÈS L'IMPACT | D | DURANT LE RAVITAILLEMENT EN CARBURANT | Y | AUTRE | |
| INDICES D'INCENDIE 1503 | A | SYSTÈME D'ALERTE | C | VISUEL | E | EXPLOSION | Y AUTRE |
| | B | AUTRES INSTRUMENTS | D | ODEUR | F | COMMUNICATION EXTÉRIEURE | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| DOMMAGES CAUSÉS PAR LE FEU 1504 | D | AUCUN | C | 0-25% | B | 26-50% | B | 51-75% | A 76-100% |

| | | | | |
|---|---|---|---|---|
| FONCTIONNEMENT DU SYSTÈME D'ALERTE DE L'AÉRONEF 1505 | A | A BIEN FONCTIONNÉ | C | NON INSTALLÉ |
| | B | N'A PAS FONCTIONNÉ | D | INCONNU |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 1506 ENDROIT OU L'INCENDIE A DÉBUTÉ | GÉNÉRAL | A | GROUPE PROPULSEUR | D | POSTE DE PILOTAGE | G | EMPENNAGE | J | COMPARTIMENT DES CIRCUITS |
| | | B | SOUTE AUX BAGAGES | E | PUIT DES ROUES | H | TOILETTE | Y | AUTRE |
| | | C | CARLINGUE | F | AILE | I | GROUPE ELECTROGÈNE | | |
| | EXACT | A | CIRCUIT D'OXYGÈNE | D | BOÎTE DE RACCORDEMENT | G | SECTION DE LA TRANSM. | L | TUYAU D'ÉCHAPPEMENT |
| | | B | TABLEAU DE BORD | E | COMPARTIMENT DU GROUPE RÉCHAUFFEUR | H | JATO | M | PNEUS |
| 1507 | | C | COMPARTIMENT DES ACCUMULATEURS | F | SECTION AVIONIQUE | K | FREIN DE ROUES | Y | AUTRE |

| | | | | | | |
|---|---|---|---|---|---|---|
| MATIÈRES COMBUSTIBLES 1508 | A | CARBURANT PRINCIPAL | F | ISOLEMENT ÉLECTRIQUE | M | CARGAISON |
| | B | CARBURANT AUXILIAIRE | G | MATÉRIAUX D'ACOUSTIQUE | N | MATÉRIAUX EXTÉRIEURS |
| | C | LIQUIDE HYDRAULIQUE | H | MÉTAL | P | INDÉTERMINÉ |
| | D | HUILE MOTEUR | K | EXPLOSIFS | Y | AUTRE |
| | E | HUILE TRANSMISSION | L | CAPITONNAGE | | |
| SOURCE DE L'INFLAMMATION 1509 | A | GAZ D'ÉCHAPPEMENT | E | SOUS-SYSTÈMES DE L'AÉRONEF | K | COURT CIRCUIT |
| | B | ÉTINCELLES (FRICTION DÉRAPAGE) | F | OCCUPANTS DE L'AERONEF (EX. CIGARE ALLUMÉ) | L | ÉCLAIRS |
| | C | ÉTINCELLES ÉLECTRIQUES | G | CARGAISON | M | ÉLECTRICITÉ STATIQUE |
| | D | SURFACES BRULANTES (CONDUITS D'ÉCHAPPEMENT) | H | EXPLOSIFS | Y | AUTRE |
| SYSTÈME D'EXTINCTEURS MANUELS 1510 | A | ACTIVITÉ-EFFICACE (DANS L'ENDROIT CHOISI) | C | ACTIVITÉ-DÉFECTUEUX DANS L'ENDROIT CHOISI | E | NON INSTALLÉ |
| | B | ACTIVITÉ-DÉFECTUEUX | D | NON ACTIVITÉ | | |
| DISPOSITIF DE NEUTRALISATION GÉN. 1511 | A | DISPONIBLE, A FONCTIONNÉ EFFICACEMENT | B | DISPONIBLE-INEFFECTIF | C | NON INSTALLÉ |
| SYSTÈME D'EXTINCTEURS/ AGENTS UTILISÉS — ÉQUIPEMENT FIXE 1512 | A | $CO_2$ BIOXYDE DE CARBONE | C | DB DIBROMODI-FLUOROMÉTHANE | E | MB - BROMURE DE MÉTHYLE |
| | B | $CB_2$ CHLOROBROMÉTHANE | D | BT BROMO-FLUOROMÉTHANE | Y | AUTRE |
| ÉQUIPEMENT PORTATIF 1513 | A | $CO_2$ BIOXYDE DE CARBONE | C | SOLUTIONS D'EAU | E | TÉTRACHLORURE DE CARBONE |
| | B | $CB_2$ CHLOROBROMÉTHANE | D | PRODUIT CHIMIQUE SEC | Y | AUTRE |

| CARBURANT ET HUILE À BORD | AU DÉCOLLAGE | À LA PREMIÈRE IRRÉGULARITÉ | AU MOMENT DE L'INCIDENT |
|---|---|---|---|
| CARBURANT Kg | 1514 | 1515 | 1516 |
| HUILE Litres | 1517 | 1518 | 1519 |

| | | | | | | |
|---|---|---|---|---|---|---|
| DONNÉES SUR LA PERTE DE LIQUIDES 1520 | A | BRIS DES CANALISATIONS DE CARBURANT | C | BRIS DES CANALISATIONS HYDRAULIQUES | E | PERTE D'HUILE MOTEUR |
| | B | BRIS DU COMPARTIMENT DE CARBURANT | D | PERTE D'HUILE TRANSMISSION | Y | AUTRE |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| AÉRONEF DOTÉ DE PROTECTION CONTRE L'IMPACT | COMPARTIMENT D'HUILE 1521 | Y | OUI | X | NON | CANAL. DE CARB. 1522 | Y | OUI | X | NON |

| | | | |
|---|---|---|---|
| AMPLEUR DE L'INCENDIE — POUR S'ÉLOIGNER DU FEU LES OCCUPANTS EURENT À PARCOURIR 1523 | _____ Mètres | DISTANCE AU PLUS PROCHES APPAREILS DESTINÉS À COMBATTRE LES INCENDIES 1524 | _____ Km |
| INCENDIE CONTRÔLÉ EFFICACEMENT — TEMPS ÉCOULÉ — DE L'ACCIDENT À L'ALERTE 1525 | _____ Min. | TEMPS ÉCOULÉ — DE L'ACCIDENT AU CONTRÔLE DE L'INCENDIE 1526 | _____ Min. |
| INCENDIE NON CONTRÔLÉ EFFICACEMENT — TEMPS ÉCOULÉ — DE L'ACCIDENT À L'ALERTE 1527 | _____ Min. | TEMPS ÉCOULÉ — DE L'ACCIDENT À L'ARRIVÉE SUR LES LIEUX 1528 | _____ Min. |

| | | | |
|---|---|---|---|
| ÉVIDENCE DE PRODUITS TOXIQUES 1529 | | OUI | X NON |

| | | | | | | |
|---|---|---|---|---|---|---|
| ÉMANATIONS DE GAZ TOXIQUES 1530 | A | HCI CHLORURE D'HYDROGÈNE | E | $NO_2$ BIOXIDE D'AZOTE | K | PHOSGÈNE |
| | B | $SO_2$ BIOXIDE DE SOUFFRE | F | CYANURES | L | FLUORURE D'HYDROGÈNE |
| | C | BENZINE | G | CHLORE | Y | AUTRE |
| | D | HYDROCARBURES NON SATURÉS | H | ARSINE | | |

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

## ANALYSIS OF OCCURRENCE – DESCRIPTION

– WHAT – A DETAILED DESCRIPTION OF THE CIRCUMSTANCES OF THE OCCURRENCE

At approximately 14:15 hours EDT, September 5th, 1976, a DeHavilland model DH-83C (Fox Moth) aircraft, CF-DJB, struck the surface of Lake Ontario in a nosedown, right wing low attitude, in a spin, approximately 30 to 50 feet west of the West island off Ontario Place in the Toronto Harbour. The pilot and one passenger were seriously injured and the aircraft substantially damaged as a result of the accident.

The pilot was participating in the 1976 Canadian International Airshow held at the water front of the Canadian National Exhibition. The aircraft had departed from the Toronto Island Airport and had proceeded in a westerly direction, entering at about the mid stage area of the show, at which time the pilot commenced a planned 360° turn to the right at an altitude of approximately 300 feet above the water surface. As the aircraft turned through approximately 90° of the turn the nose pitched down and the aircraft entered a spin to the right. The aircraft continued to spin with the engine developing high power and struck the water surface while on a north westerly heading and came to rest right side up in the water with the nose and cabin area submerged in approximately 10 to 15 feet of water.

The pilot escaped from the cockpit area of the aircraft on his own and was able to advise the rescue personnel that a passenger was still trapped in the cabin area of the aircraft, at which time a Toronto Harbour Police diver entered the water and was successful on his 3rd dive in freeing the passenger from the wreckage and brought him to the surface where artificial respiration restored the passengers breathing.

The weather reported at time of the accident was cloud 4,000 scattered, visibility 15+ miles, temperature +17°C, and the wind from 320° at 20 gusting 26 knots.

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

## INSTALLATIONS AU SOL

| DISP. | UTILISÉE | DESCRIPTION | | DISP. | UTILISÉE | DESCRIPTION | |
|---|---|---|---|---|---|---|---|
| | | PAR | 1101 | | | ANÉMOMÈTRES | 1113 |
| | | RADAR DE VEILLE | 1102 | | | INDICATEUR DE DIRECTION D'ATTERRISSAGE | 1114 |
| | | RADAR DE VEILLE SECONDAIRE | 1103 | | | BALISAGE LATÉRAL, DE SEUIL DE FIN DE PISTE | 1115 |
| | | ILS – SYSTÈME COMPLET | 1104 | | | BALISAGE DU PROLONGEMENT D'ARRÊT | 1116 |
| | | ILS – TRAJECTOIRE DE DESCENTE SEULEMENT | 1105 | | | BALISAGE D'AXE DE PISTE | 1117 |
| | | ILS – RADIOPHARE D'ALIGNEMENT DE PISTE | 1106 | | | BALISAGE DE ZONE D'IMPACT DE PISTE | 1118 |
| | | VORTAC | 1107 | | | BALISAGE LATÉRAL DE VOIE DE CIRCULATION | 1119 |
| | | VOR/TVOR | 1108 | | | BALISAGE D'AXE DE VOIE DE CIRCULATION | 1120 |
| | | NDB | 1109 | | | BARRES D'ARRÊT | 1121 |
| | | DME | 1110 | | | VLF – STATION AU SOL | 1122 |
| | | SYSTÈME D'ATTERRISSAGE MICRO-ONDE | 1111 | | | VHF/UHF DF | 1123 |
| | | BALISAGE D'APPROCHE | 1112 | | | VASI | 1124 |

| TYPE DE BALISAGE D'APPROCHE 1125 | | | TYPE DE VASIS 1126 | | |
|---|---|---|---|---|---|
| | 1 | SIMPLIFIÉ (SOURCE SIMPLE) | | 2 | VASIS |
| | 2 | SIMPLIFIÉ (BARRETTE) | | 1 | VASIS À 3 BARRES |
| | 3 | PRÉCISION – CAT I CALVERT | | 4 | AVASIS À 3 BARRES |
| | 4 | PRÉCISION – CAT II CALVERT | | 5 | AVASIS |
| | 5 | PRÉCISION – CAT II | | 3 | T-VASIS |
| | 6 | PRÉCISION – CAT III | | 6 | AT-VASIS |
| | Y | AUTRE | | 7 | AUTRE |

| PISTE UTILISÉE | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | A | À VUE | C | CAT-I | E | CAT-IIIA | G | CAT-IIIC |
| | B | INSTRUMENTS | D | CAT-II | F | CAT-IIIB | | |

## COMMUNICATIONS

| | | | | | | |
|---|---|---|---|---|---|---|
| COMMUNICATIONS BILATÉRALES 1128 | A | ÉTABLIES ET SATISFAISANTES | B | ÉTABLIES NON-SATISFAISANTES | X | NON ÉTABLIES |
| DERNIÈRE STATION AU SOL EN CONTACT 1129 | A | TOUR DE CONTRÔLE DE L'AÉROPORT | D | CENTRE D'INFORMATION DE VOL | G | CLUB DE PILOTAGE/UNICOM |
| | B | CONTRÔLE D'APPROCHE | E | SERVICE D'INFORMATION DE VOL | Y | AUTRE |
| | C | CENTRE DE CONTRÔLE RÉGIONAL | F | OPÉRATEUR STATION AU SOL | | |
| DOSSIER DES COMM. ATS 1130 | A | DISPONIBLE | B | PARTIELLEMENT DISPONIBLE | X | NON DISPONIBLE |

| | | | | |
|---|---|---|---|---|
| DOSSIER DES COMMUNICATIONS RT *Choisir 2 au plus* 1131 | A | DISPONIBLE EN FONCTIONNEMENT | D | TRANSCRIPTIONS FAITES |
| | B | DISPONIBLE NON EN FONCTIONNEMENT | F | TRANSCRIPTIONS NON FAITES |
| | C | DISPONIBLE ET EN FONCTIONNEMENT PARTIEL | E | TRANSCRIPTIONS PARTIELLEMENT FAITES |

REMARQUES:

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

s.19(1)

## ANALYSIS OF OCCURRENCE

— **WHY** — DISCUSS THE EFFECT OF THE ENVIRONMENT, THE AIRCRAFT AND THE PERSONNEL INVOLVED ON THE OCCURRENCE.

Examination of the aircraft wreckage did not reveal any evidence of mechanical failure of the aircraft or components, related to the cause of the accident.

The aircraft was being operated within the center of gravity limits and below the authorized maximum allowable gross weight.

C-FDJB had been purchased by Wardair in February 1973 and transported from Kenora, Ontario to Edmonton where the aircraft underwent a complete overhaul at the Wardair maintenance base in Edmonton. The work was completed and the aircraft returned to flying status in July 1976.

Mr. Martin began flying the aircraft on July 17th, 1976. After flying the aircraft locally in the Edmonton area for approximately 7 hours between July 17th and 19th, he departed from Edmonton July 20th and flew the aircraft to Toronto, arriving in Toronto on July 23rd.

After arriving in the Toronto area the aircraft had been flown locally for another 11 hours which included a performance at the Niagara Air Show August 29th, 1976, with Mr. Martin as the pilot. Performance in the Niagara Show was limited to two or three flybys with no maneuvering.

The aircraft was scheduled to perform during the third and fourth days of the Canadian International Air Show, with Mr. Martin as pilot. Maneuvers planned were two, three hundred and sixty degree turns, one left and one right followed by two lazy eights, a stall turn, and a final fly past. Maneuvers were to be carried out at an altitude of approximately 300 feet above the water surface.

According to the pilot the aircraft was performing normally on the day of the accident. The departure from Toronto Island Airport and the short flight to the stage area of the air show was routine until part way through the first three hundred and sixty degree turn to the right when the aircraft suddenly flicked on him and entered a spin to the right. The pilot stated he could not remember much of the spin but did recall he was flying the aircraft at about 60 knots and had banked the aircraft about 35° prior to it entering the spin.

35MM movies of the flight show the angle of bank increasing throughout the turn with right rudder being applied and held on throughout the spin to the right.

Strong, gusty, northwest winds prevailed at the time of the accident, which at the particular point in the turn where the aircraft entered the spin, were causing the aircraft to drift in towards the spectators on the island at Ontario Place, as well as being in a downwind flight condition at approximately 300 feet above the water, giving the pilot the impression he was flying at a higher airspeed than he actually was.

The above mentioned factors probably contributed to the cause of the accident.

In spite of the fact that Mr. Martin is an experienced airline pilot, Maneuvers which he had planned to carry out at low altitude, within a defined area, with strong gusty winds, in an aircraft such as the Fox Moth, would require a pilot experienced in this type of flying and thoroughly familiar with the flight characteristics of the Fox Moth or at least a similar type aircraft.

.....2

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

## RENSEIGNEMENTS MÉTÉOROLOGIQUES

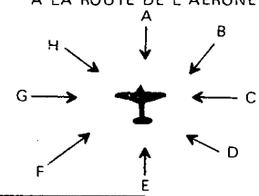
| | | | | | |
|---|---|---|---|---|---|
| RENSEIGNEMENTS MÉTÉO 1001 | T | RENSEIGNEMENTS DISPONIBLES ET FOURNIS | N | RENSEIGNEMENTS NON UTILISÉS | |
| | U | RENSEIGNEMENTS NON DISPONIBLES | Z | NON RAPPORTÉS | |

| | | | | | | |
|---|---|---|---|---|---|---|
| SOURCE DE RENSEIGNEMENTS 1002 | A | AUCUNE | D | SERVICES DE LA COMPAGNIE | G | AUTRE OBSERVATEUR |
| | B | MÉTÉOROLOGISTE RECONNU | E | AUTRE PILOTE | Y | AUTRE |
| | C | PRÉVISIONNISTE RECONNU | F | ÉTUDE PERSONNELLE | | |

| | | | | |
|---|---|---|---|---|
| CONDITIONS MÉTÉO VS PRÉVISIONS 1003 | A | SUBSTANTIELLEMENT LES MÊMES | E | CONSIDÉRABLEMENT PIRES QUE PRÉVUES |
| | C | CONSIDÉRABLEMENT MEILLEURES QUE PRÉVUES | | |

### CONDITIONS ATMOSPHÉRIQUES SUR LES LIEUX DE L'INCIDENT

| | | | | |
|---|---|---|---|---|
| DIRECTION DU VENT 1004 °M | ORIENTATION DU VENT RELATIVE À LA ROUTE DE L'AÉRONEF | HAUTEUR DE LA BASE DES NUAGES 1007 | TEMPÉRATURE 1010 °C | POINT DE ROSÉE 1013 °C |
| VITESSE DU VENT 1005 Noeuds | | VISIBILITÉ 1008 | ALTITUDE-DENSITÉ 1011 Pds | DIFFÉRENCE ENTRE LA TEMPÉRATURE ET LE POINT DE ROSÉE 1014 °C |
| | | RVR 1009 | CALAGE ALTIMÉTRIQUE QNH 1012 | |




CALME 1006

| | | | | | | |
|---|---|---|---|---|---|---|
| ÉTAT DU CIEL 1015 | A | TEMPS CLAIR | E | FRAGMENTÉ/ÉPARS PLUS BAS | I | OBSCURCI |
| | B | NUAGES ÉPARS AU-DESSUS DE 1000P. | G | COUVERT/ÉPARS PLUS BAS | H | PARTIELLEMENT OBSCURCI |
| | C | NUAGES ÉPARS AU-DESSOUS DE 1000 PIEDS | F | COUVERT | | |
| | D | FRAGMENTÉ | | | | |
| PHÉNOMÈNES ADVERSES 1016 | A | POUSSIÈRE | F | FUMÉE | K | PRÉCIPITATION |
| | B | BROUILLARD | G | TEMPÊTE DE POUSSIÈRE | J | AUCUNE |
| | C | BROUILLARD LÉGER | H | TEMPÊTE DE SABLE | Y | AUTRE |
| | E | BROUILLARD GLACIAL | I | TEMPÊTE DE NEIGE | | |
| TYPE DE PRÉCIPITATION Choisir 2 au plus 1017 | C | BRUINE | F | NEIGE | I | ORAGES |
| | D | PLUIE | G | NEIGE/FLOCONS/ GRANULES DE GLACE | L | AUCUNE |
| | E | AVERSES | H | GIBOULÉES | Y | AUTRE |
| | A | GRÊLE | J | BRUINE VERGLACÉE | | |
| | B | GRÉSIL | K | PLUIE VERGLACÉE | | |
| CONDITIONS MÉTÉOROLOGIQUES IMPORTANTES Choisir 3 au plus 1018 | A | TURBULENCE DANS LES NUAGES | H | BASE DE NUAGE VARIABLE | C | TORNADE |
| | B | TURBULENCE DANS L'AIR CLAIR | M | LÉGÈRE PRÉCIPITATION | D | OURAGAN, TYPHON |
| | G | LIGNE DE GRAINS | L | FORTE PRÉCIPITATION | E | ONDE OROGRAPHIQUE |
| | J | VENT VARIABLE | R | ORAGE | S | NON SIGNIFICATIF |
| | I | VENT EN RAFALE | Q | GIVRAGE CONSIDÉRABLE | Y | AUTRE |
| | K | VENT EN RAFALE ET VARIABLE | N | TEMPÉRATURE SOUS 0°C | | |

### CONDITIONS MÉTÉOROLOGIQUES AU MOMENT DE LA PREMIÈRE ANOMALIE DU VOL (S'IL Y A LIEU)

| | | | |
|---|---|---|---|
| ALTITUDE ASL DE L'AÉRONEF 1019 | TEMPÉRATURE 1022 °C | PHÉNOMÈNES ADVERSES 1025 | CONDITIONS MÉTÉOROLOGIQUES IMPORTANTES 1027 |
| ALTITUDE ASL GÉNÉRALE DU TERRAIN 1020 | POINT DE ROSÉE 1023 °C | PRÉCIPITATION 1026 | DEGRÉ DE TURBULENCE 1028 |
| ALTITUDE/SOL DE L'AÉRONEF 1021 | DIFFÉRENCE ENTRE LE POINT DE ROSÉE ET LA TEMPÉRATURE 1024 °C | | |

| | |
|---|---|
| L | LÉGÈRE |
| M | MODÉRÉE |
| F | FORTE |

NOTES:

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*



-WHY- cont.

It is apparent from the 35MM movies that the pilot was increasing the angle of bank throughout the turn and at the same time applying right rudder, when the aircraft stalled and spun to the right. After the aircraft entered the spin, right rudder was held on throughout two rotations of the spin and was still being applied when the aircraft struck the water. The engine was still developing high power at the time of impact.

Mr. Martin was carrying a passenger in the front passenger compartment of the aircraft, however, had not informed the Air Show officials that a passenger would be carried during the show. Only the Pilot-In-Command's name was listed on the Daily Crew and Passenger Listing form for the flight.

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

**ANALYSIS OF OCCURRENCE** – FINDINGS/PREVENTION/SAFETY PROPOSALS

– FINDINGS – LIST THE FINDINGS

1/ The aircraft was performing at low level in an Air Show.

2/ Strong gusty winds prevailed at the time of the show.

3/ The aircraft stalled and entered a spin while the pilot was executing a turn.

4/ The proper technique for spin recovery was not taken by the pilot.

5/ The aircraft continued to spin until it struck the water.

– HOW PREVENTED – DESCRIBE HOW THE OCCURRENCE COULD HAVE BEEN PREVENTED AND THE TASK OR MISSION ACCOMPLISHED

Had the pilot limited the show to a fly past instead of attempting to maneuver the aircraft within the confines of the air show stage, it is highly unlikely that the accident would have occurred.

Attempting to maneuver the aircraft at low level with the strong gusty wind was probably the major contributing factor of the accident.

– SAFETY PROPOSALS – A CONCISE LISTING

Pilots performing in air shows with vintage aircraft should be encouraged to limit their performance to straight and level flybys.

Carrying passengers during air show performances should be discouraged, and should never be on-board unless officials of the air show are aware that they are, particularly rescue personnel.

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

## FONCTIONNEMENT DÉFECTUEUX OU DÉFAILLANCE DE L'AÉRONEF OU DES CIRCUITS

| LIGNE | CIRCUIT | ÉLÉMENT/CIRCUIT | SOUS-CIRCUIT SOUS-ÉLÉMENT | PIÈCES |
|---|---|---|---|---|
| 1 | | | | |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | |
| 6 | | | | |

## DÉTAILS

| | |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| 6 | |

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

## INVESTIGATION

| INVESTIGATED BY | NUMBER OF INVESTIGATORS | | ASSISTANCE FROM DNHW 2103 | ASSISTANCE FROM HQ LAB 2104 | INVESTIGATION BY CORRESPONDENCE 2105 |
|---|---|---|---|---|---|
| | CAI | TI | | | |
| | ONE 2101 | ONE 2102 | YES / NO | YES / NO | PARTIALLY / NO |
| | OTHER ASSISTANCE | | | | 2106 |

| PAGES SUBMITTED | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | C1 | C2 | C3 | C4 |
| | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | | M1 | M2 | M3 | |

| APPENDED DOCUMENTS | | | | | | | |
|---|---|---|---|---|---|---|---|
| INTERVIEWS 2107 | A | FLIGHT CREW | E | MAINTENANCE PERSONNEL | K | PERSONAL PHYSICIAN |
| | B | EYEWITNESS | F | SPOUSE | L | MANAGEMENT |
| | C | INSTRUCTOR/CHECK PILOT | G | PASSENGERS | | |
| | D | CABIN CREW | H | DISPATCH | | |
| REPORTS 2108 | A | MATERIALS LAB | D | MEDICAL | G | CORONER |
| | B | TECHNICAL | E | DCIEM | H | POLICE |
| | C | DATA RECORDER | F | PATHOLOGIST | K | CRIME LAB |
| OPERNL DATA 2109 | A | PERFORMANCE | D | ATS TAPE TRANSCRIPTION | G | CASUALTY LIST |
| | B | WEATHER | E | CVR TAPE TRANSCRIPTION | | |
| | C | PHOTOGRAPHS | F | MAPS & CHARTS | | |

| INVESTIGATION | ELAPSED TIME FROM ACCIDENT TO INVESTIGATOR'S ARRIVAL ON SCENE 2110 | ELAPSED TIME FROM ACCIDENT TO RECEIPT OF NOTIFICATION BY REGION 2111 |
|---|---|---|
| | 0 Hrs | 0 Hrs |

INVESTIGATOR'S SIGNATURES

(IIC)

REGIONAL SUPERINTENDENT'S COMMENTS

REGIONAL SUPT

26 Jan 1977
DATE

NOTES:

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

## RENSEIGNEMENTS SUR L'AÉRONEF

| CONSTRUCTEUR 0800 | MODÈLE 0801 | HEURES TOTALES DE LA CELLULE 0802 Hres | TSO 0803 Hres |
|---|---|---|---|

| POIDS DE L'AÉRONEF 0804 | | | CENTRE DE GRAVITÉ 0805 | | | | |
|---|---|---|---|---|---|---|---|
| | A | IDENTIQUE OU INFÉRIEUR AU POIDS AUTORISÉ | | A | LIMITE AVANT DÉP. | C | DANS LES LIMITES |
| | B | SUPÉRIEUR AU POIDS AUTORISÉ | | B | LIMITE ARRIÈRE DÉPASSÉE | D | LIMITES LATTÉRALES DÉPASSÉES |

| ESTIMATION TOTALE DU POIDS DE L'AÉRONEF 0806/0807 | POIDS DU C DE G | | TOLÉRANCE DU C DE G | |
|---|---|---|---|---|
| | OU _____ POUCES | | _____ % MAC OU _____ PCS À _____ PCS | |
| | _____ % MAC | DERRIÈRE LE POINT DE REPÈRE / DEVANT LE POINT DE REPÈRE | À _____ % MAC | DERRIÈRE LE POINT DE REPÈRE / DEVANT LE POINT DE REPÈRE |

| TYPE DE CARBURANT 0808 | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | A | 80/87 | L | ESSENCE D'AUTOMOBILE | G | JP-3 | J | JP-6 | Y AUTRE |
| | C | 100/130 | E | KÉROSÈNE | H | JP-4 | K | CARBURANT MÉLANGÉ | |
| | D | 115/145 | F | JP-1 | I | JP-5 | Z | INCONNU | |

## RENSEIGNEMENTS SUR LE GROUPE PROPULSEUR ET L'HÉLICE

| TSO HRS | MOTEUR N° 1 0809 | MOTEUR N° 2 0810 | MOTEUR N° 3 0811 | MOTEUR N° 4 0812 | HÉLICE N° 1 0813 | HÉLICE N° 2 0814 | HÉLICE N° 3 0815 | HÉLICE N° 4 0816 |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |

| AÉRONEF ÉQUIPÉ SELON LES NORMES MINIMALES IFR | Y | OUI | X | NON |
|---|---|---|---|---|

| AÉRONEF ÉQUIPÉ POUR LES AP. DE PRÉCISION 0817 | | | | | | |
|---|---|---|---|---|---|---|
| | A | CAT. I | C | CAT. III A | E | CAT. III C |
| | B | CAT. II | D | CAT. III B | | |

| RADAR MÉTÉO DE BORD 0818 | | | | | | |
|---|---|---|---|---|---|---|
| | A | UTILISABLE NON EN FONCTIONNEMENT | C | UTILISATION SATISFAISANTE | E | NON INSTALLÉ |
| | B | INUTILISABLE | D | UTILISATION NON SATISFAISANTE | F | À BORD FONCTIONNEMENT NON RAPPORTÉ |

| SYSTÈME AVERTISSEUR DE DÉCROCHAGE 0819 | | | | | INDICATEUR 0820 | | |
|---|---|---|---|---|---|---|---|
| | A | INDICATEUR INSTALLÉ | D | INDICATEUR & POUSSEUR DE MANCHE INSTALLÉS | | V | VISUEL |
| | C | POUSSEUR DE MANCHE INSTALLÉ | B | INDICATEUR & POUSSEUR DE MANCHE NON INSTALLÉS | | A | SONORE |

## ÉQUIPEMENT DE BORD ET CIRCUITS

| DISP. | UTILISÉ | DESCRIPTION | DISP. | UTILISÉ | DESCRIPTION |
|---|---|---|---|---|---|
| | | COMMUNICATIONS VHF 0821 | | | PILOTE AUTOMATIQUE 0838 |
| | | COMMUNICATIONS HF 0822 | | | FEUX ANTICOLLISION 0839 |
| | | COMMUNICATIONS UHF 0823 | | | OXYGÈNE POUR L'ÉQUIPAGE 0840 |
| | | VOR 0824 | | | OXYGÈNE POUR LES PASSAGERS 0841 |
| | | ADF 0825 | | | SOURCE AUXILIAIRE DE COURANT 0842 |
| | | TACAN 0826 | | | RADAR ALTIMÉTRIQUE 0843 |
| | | DME 0827 | | | AVERTISSEUR DE PROXIMITÉ DU SOL 0844 |
| | | SYSTÈME COMPLET ILS 0828 | | | AVERTISSEUR D'ALTITUDE 0845 |
| | | ALIGNEMENT DE PISTE ILS SEULEMENT 0829 | | | DISPOSITIF ANTICOLLISION 0846 |
| | | TRAJECTOIRE DE DESCENTE ILS SEULEMENT 0830 | | | NAVIGATION DE SURFACE 0847 |
| | | TRANSPONDEUR 0831 | | | NAVIGATION VLF 0848 |
| | | TRANSPONDEUR (MODE C) 0832 | | | MLS 0849 |
| | | MOTEUR ANTIGIVRAGE/DÉGIVRAGE 0833 | | | PRÉSENTATION À HAUTEUR DE L'OEIL 0850 |
| | | DÉGIVREUR D'HÉLICE 0834 | | | NAVIGATION PAR INERTIE 0851 |
| | | CIRCUIT ANTIGIVRAGE/DÉGIVRAGE DE PARE-BRISE 0835 | | | DONNÉES INTÉGRÉES DE VOL 0852 |
| | | CIRCUIT ANTIGIVRAGE/DÉGIVRAGE DE LA CELLULE 0836 | | | DÉTECTION DE TURBULENCE 0853 |
| | | DOUBLES COMMANDES 0837 | | | |

## CONFIGURATION DE L'AÉRONEF À L'IMPACT

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TRAIN D'ATTERRISSAGE 0854 | F | FIXE | U | ÉLEVÉ | T | EN MOUVEMENT | D | BAISSÉ | FLOTTEURS-ROUES AMPHIBIES 0855 | U | ÉLEVÉ | D | BAISSÉ | | |
| VOLETS 0856 | N | AUCUN | U | ÉLEVÉS | P | PARTIELS | D | BAISSÉS | | | | | | | |
| PUISSANCE MOTEUR 0857 | N | AUCUNE | P | PARTIELLE | F | MAXIMALE | R | INERTIE | A | ASSYMÉTRIQUE | | | | | |
| MÉLANGE 0858 | R | RICHE | L | FAIBLE | A | AUTO | C | ÉTOUFFOIR | | | | | | | |
| CHAUFFE-CARBURATEUR 0859 | H | CHAUD | C | FROID | P | PARTIEL | X | NON INSTALLÉ | | | | | | | |
| CHAUFFAGE PAR INDUCTION 0860 | H | CHAUD | C | FROID | P | PARTIEL | X | NON INSTALLÉ | | | | | | | |

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

## CRASHWORTHINESS–SYSTEMS & PROCEDURES

| SYSTEM/ PROCEDURE GENERAL | SYSTEM/PROCEDURE SPECIFIC | NEEDED | ON BOARD OR AVAILABLE | | | USED/ WORN | | | PRODUCED/ CONTRIB. TO INJURIES | | | MINIMIZED/ PREVENTED INJURIES | | | FAILED | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | YES | NO | ? | YES | NO | ? | YES | NO | ? | YES | NO | ? | YES | NO | ? |
| RESTRAINT SYSTEM CREW | LAP BELT 2401/2402 | | X | | | X | | | | X | | X | | | | X | |
| | SHOULDER HARNESS 2403/2404 | | | X | | | | | | | | | | | | | |
| | LAP BELT TIE DOWN STRAP 2405/2406 | | | X | | | | | | | | | | | | | |
| | INERTIA REEL 2407/2408 | | | X | | | | | | | | | | | | | |
| | SHOULDER STRAP GUIDE 2409/2410 | | | X | | | | | | | | | | | | | |
| RESTRAINT SYSTEM PASSENGERS | LAP BELT 2411/2412 | | X | | | X | | | | X | | X | | | | X | |
| | SHOULDER HARNESS 2413/2414 | | | X | | | | | | | | | | | | | |
| | LAP BELT TIE DOWN STRAP 2415/2416 | | | X | | | | | | | | | | | | | |
| | INERTIA REEL 2417/2418 | | | X | | | | | | | | | | | | | |
| | SHOULDER STRAP GUIDE 2419/2420 | | | X | | | | | | | | | | | | | |
| SEATS | SEAT/PILOT 2421/2422 | | X | | | X | | | | X | | | X | | | X | |
| | SEAT/COPILOT 2423/2424 | | | | | | | | | | | | | | | | |
| | SEAT/JUMP 2425/2426 | | | | | | | | | | | | | | | | |
| | SEAT/PASSENGER 2427/2428 | | X | | | X | | | | X | | | X | | X | | |
| IMMEDIATE ENVIRONMENT COCKPIT | DESIGN 2429/2430 | | | | | | | | | | | | | | | | |
| | LOCATION 2431 | | | | | | | | | | | | | | | | |
| | RESTRAINT 2432/2433 | | | | | | | | | | | | | | | | |
| IMMEDIATE ENVIRONMENT CABIN | DESIGN 2434/2435 | | | | | | | | | | | | | | | | |
| | LOCATION 2436 | | | | | | | | | | | | | | | | |
| | RESTRAINT 2437/2438 | | | | | | | | | | | | | | | | |
| CABIN BAGGAGE | LOCATION 2439 | | | | | | | | | | | | | | | | |
| | RESTRAINT 2440/2441 | | | | | | | | | | | | | | | | |
| CARGO | LOCATION 2442 | | | | | | | | | | | | | | | | |
| | RESTRAINT 2443/2444 | | | | | | | | | | | | | | | | |
| EMERGENCY EVACUATION | AIRCRAFT DOORS 2445/2446 | | | | | | | | | | | | | | | | |
| | EMERGENCY EXITS 2447/2448 | | | | | | | | | | | | | | | | |
| | CHUTES 2449/2450 | | | | | | | | | | | | | | | | |
| | ROPES 2451/2452 | | | | | | | | | | | | | | | | |
| | EXIT LIGHTING 2453/2454 | | | | | | | | | | | | | | | | |
| | INTERIOR EMERGENCY LIGHTING 2455/2456 | | | | | | | | | | | | | | | | |
| | SUPERVISION 2457/2458 | | | | | | | | | | | | | | | | |
| | WARNING 2459/2460 | | | | | | | | | | | | | | | | |
| | OTHER 2461/2462 | | | | | | | | | | | | | | | | |
| WATER LANDINGS | LIFE VESTS–ACCESSIBILITY 2463/2464 | | | | | | | | | | | | | | | | |
| | LIFE VESTS–TYPE 2465/2466 | | | | | | | | | | | | | | | | |
| | LIFE RAFTS–ACCESSIBILITY 2467/2468 | | | | | | | | | | | | | | | | |
| | LIFE RAFTS–TYPE 2469/2470 | | | | | | | | | | | | | | | | |

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

## RENSEIGNEMENTS SUR LE PERSONNEL – PILOTE

| PILOTES AUX COMMANDES 0501 | | | | | | |
|---|---|---|---|---|---|---|
| | A | PILOTE COMMANDANT DE BORD | G | INSTRUCTEUR | E | AUCUN |
| | B | CO-PILOTE | D | PILOTE SURVEILLANT | Y | AUTRE |
| | C | ÉLÈVE | F | LES DEUX PILOTES | | |

## PILOTE COMMANDANT DE BORD

| AGE 0502 | SEXE 0503 | | NOM DE FAMILLE 0504 | INITIALES 0505 | NUMÉRO DE LICENCE 0506/0507 | | |
|---|---|---|---|---|---|---|---|
| | H | F | | | | C | CANADIENNE |
| | | | | | | F | ÉTRANGÈRE |

| POSTE OCCUPÉ 0508 | | | | | | |
|---|---|---|---|---|---|---|
| | A | PILOTE | D | NAVIGATEUR | G | AUTRE |
| | B | COMMANDANT ADJOINT | E | POSTE DE REPOS | | |
| | C | MÉCANICIEN DE BORD | F | CABINE DES PASSAGERS | | |

| FONCTION SPÉCIALE 0509 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | A | AUCUNE | C | EXAMINATEUR DE LA CIE. | E | TECHNICIEN | Y | AUTRE |
| | B | INSTRUCTEUR | D | EXAMINATEUR DU MDT | F | ÉLÈVE | | |

| LICENCES DE PILOTE 0510 | | | | | | |
|---|---|---|---|---|---|---|
| | A | ÉLÈVE | D | DE LIGNE | V | GIRAVION PRIVÉ |
| | B | PRIVÉE | T | PLANEUR | W | PROFESSIONNELLE GIRAVION |
| | C | PROFESSIONNEL | U | BALLON LIBRE | X | PROFESSIONNELLE DE 1ère CLASSE ANNOTATION DE GIRAVION |
| | 5 | PROFESSIONNELLE 1ère CLASSE | I | AUCUNE | Y | DE LIGNE, ANNOTATION DE GIRAVION |
| | H | AUTRE | | | | |

| QUALIFICATION DE TYPE 0511 | | | | | | |
|---|---|---|---|---|---|---|
| | Y | OUI | X | NON | DERNIÈRE VÉRIFICATION DE CE TYPE 0512 | SEMAINES |

| QUALIF. DE VOL AUX INSTRUMENTS 0513/0514 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | AVION | | LES DEUX | 1 | CLASSE I | DERNIÈRE VÉRIFICATION DE QUALIFICATION DE VOL AUX INSTRUM. | F VOL |
| | | HÉLICOPTÈRE | | | 2 | CLASSE II | 0515/0516 SEMAINES | S SIMULATEUR |

| QUAL. D'INS. 0517 | | | | | |
|---|---|---|---|---|---|
| | Y | OUI | X | NON | CLASSE 0518 |

| CLASSIFIC. DES QUALIFIC. EN CHOISIR jusqu'à deux 0519 | | | | | | |
|---|---|---|---|---|---|---|
| | A | AVION SE SOL | D | AVION ME MER | H | TYPE D'HÉLICOPTÈRE |
| | B | AVION ME SOL | AC | AVION SE SOL ET MER | Y | AUTRE |
| | C | AVION SE MER | BD | AVION ME SOL ET MER | | |

| ANNOTATIONS 0520 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | N | NUIT | B | BLOC D'ESPACE AÉRIEN | A | ACROBATIES AERIENNES | T | TRSA |

TEMPS DE VOL (À l'heure près – Si inconnu inscrire X)

| | TOUS TYPES | CE TYPE | EN DOUBLE COMMANDE | CE TYPE D'ATTER. | MONOMOTEUR | MULTI-MOTEUR | RÉEL AUX INSTRUMENTS | SIMULÉ AUX INSTRU. | DE NUIT | GIRAVION |
|---|---|---|---|---|---|---|---|---|---|---|
| HEURES TOTALES | 0521 | 0523 | 0525 | 0527 | 0529 | 0531 | 0533 | 0535 | 0537 | 0539 |
| H. DERN. 90 JOURS | 0522 | 0524 | 0526 | 0528 | 0530 | 0532 | 0534 | 0536 | 0538 | 0540 |

| HEURES, DERNIERS 30 JOURS | HEURES, DERNIERS 3 JOURS | HEURES, DERNIERS 24 HEURES | HEURES EN SERVICE AVANT L'INCIDENT | HEURES DE REPOS AVANT LE SERVICE | HEURES EN ÉVEIL DEPUIS LE DERNIER REPOS | ATTERRISSAGE DE CE GENRE, DERNIERS 90 JOURS | HEURES TOTALES AUX INSTRU. DERNIERS 30 JOURS |
|---|---|---|---|---|---|---|---|
| 0541 | 0542 | 0543 | 0544 | 0545 | 0546 | 0547 | 0548 |

| FICHE MÉD. 0549 | | | | | | |
|---|---|---|---|---|---|---|
| | 1 | CERTIFICAT MÉDICAL VALIDE SANS RESTRICTION/LIMITATION | 2 | CERTIFICAT MÉDICAL VALIDE AVEC RESTRICTIONS/LIMITATIONS | 3 | CERTIFICAT MÉDICAL NON VALIDE |

| ÉCOLE DE PILOTAGE | NUMÉRO DE LICENCE C.T.A. | CODE 0550 |
|---|---|---|
| | | |

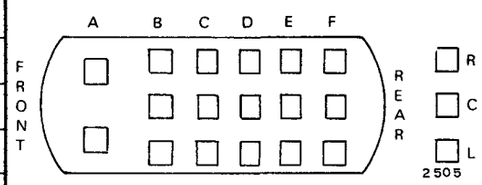
| INSTRUCTEUR PRINCIPAL – NOM 0551/0552 | | | | EN DOUBLE COMMANDE AU COURS DES DERNIERS SIX MOIS | EN DOUBLE COMMANDE AU COURS DE LA DERNIÈRE ANNÉE |
|---|---|---|---|---|---|
| | F | INSTRUCTEUR À PLEIN TEMPS À L'ÉCOLE | | | |
| | P | INSTRUCTEUR À TEMPS PARTIEL À L'ÉCOLE | | | |
| EXAMINATEUR DE VOL D'ESSAI – NOM ET LICENCE 0553/0554 | M | MDT | C | COMPAGNIE | |
| | D | DFTE | | 0555 | 0556 |

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

s.19(1)

## CRASHWORTHINESS–INJURIES

| IDENTIFICATION 2501 | | DEGREE OF INJURY 2502 | | AUTOPSY 2503 | |
|---|---|---|---|---|---|
| X | PILOT | | | | |
| B | CO-PILOT | | | A | PHYSICIAN |
| C | OTHER FLIGHT CREW | F | FATAL | B | PATHOLOGIST |
| D | CABIN CREW | X S | SERIOUS | C | FLIGHT SURGEON |
| E | PASSENGER | M | MINOR | D | OTHER |
| F | PERSON OUTSIDE AIRCRAFT | N | NONE | E | CAM. PRESENT |




ROW _____

2504

| FACING 2506 | |
|---|---|
| F | FRONT |
| S | SIDE |
| R | REAR |

THERE IS SPACE BELOW FOR SPECIFYING UP TO TEN INJURIES FOR THE PERSON COVERED BY THIS PAGE. THE "EIGHTH REVISION, INTERNATIONAL CLASSIFICATION OF DISEASES, SECTION XVII WILL BE USED TO CATEGORIZE ALL INJURIES.

ENTER THE PROPER CODE IN THE SPACE PROVIDED AS WELL AS A NARRATIVE DESCRIPTION OF THE INJURY.

ENTER THE APPROPRIATE CODE FOR THE "EVENT CAUSING INJURY" AT THE RIGHT.

| EVENT CAUSING INJURY | |
|---|---|
| STRUCK INTERIOR OF AIRCRAFT AT IMPACT | A |
| STRUCK BY FLYING OBJECT INSIDE AIRCRAFT | B |
| BURNS ONLY | C |
| BURNS FOLLOWING OTHER INJURIES | D |
| CRUSHED IN WRECKAGE | E |
| CONTACT WITH PROP/INTAKE/EXHAUST | F |
| FELL FROM AIRCRAFT (OR THROWN) | G |
| STRUCK BY AIRCRAFT | H |
| PULLED UNDERWATER | J |
| STRUCK BY MAIN ROTOR | K |
| STRUCK BY TAIL ROTOR | L |
| STRUCK INTERIOR OF AIRCRAFT IN TURBULENCE | M |
| STRUCK BY DISPLACED COMPONENT/STRUCTURE | N |

| | CODE | |
|---|---|---|
| 2507 | 8 2 4 | 2508 |
| 2509 | | 2510 |
| 2511 | | 2512 |
| 2513 | | 2514 |
| 2515 | | 2516 |
| 2517 | | 2518 |
| 2519 | | 2520 |
| 2521 | | 2522 |
| 2523 | | 2524 |
| 2525 | | 2526 |

NOTES:

Document disclosed under the *Access to*
Document divulgué en vertu de la *Loi sur l'accès à l'information*

## VUE EN ÉLÉVATION DU LIEU

FAIRE UN CROQUIS DES PISTES, OBSTACLES, TRAJECTOIRE DE VOL, ETC. INDIQUER LES DISTANCES ET DIMENSIONS IMPORTANTES.

## VUE EN PLAN DU LIEU

FAIRE UN CROQUIS DE LA ZONE D'ATTERRISSAGE, DES OBSTACLES, DE LA TRAJECTOIRE DE L'AÉRONEF, ETC. INDIQUER LES DISTANCES ET DIMENSIONS IMPORTANTES, ET LE VECTEUR VENT.

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

s.19(1)

## CRASHWORTHINESS–INJURIES

| IDENTIFICATION 2501 | | DEGREE OF INJURY 2502 | | AUTOPSY 2503 | |
|---|---|---|---|---|---|
| A | PILOT | | | A | PHYSICIAN |
| B | CO-PILOT | | | B | PATHOLOGIST |
| C | OTHER FLIGHT CREW | F | FATAL | C | FLIGHT SURGEON |
| D | CABIN CREW | X | SERIOUS | D | OTHER |
| X | PASSENGER | M | MINOR | E | CAM. PRESENT |
| F | PERSON OUTSIDE AIRCRAFT | N | NONE | | |

FRONT — A B C D E F — REAR

R
C
L
2505

ROW _____
2504

| FACING 2506 | |
|---|---|
| F | FRONT |
| S | SIDE |
| R | REAR |

THERE IS SPACE BELOW FOR SPECIFYING UP TO TEN INJURIES FOR THE PERSON COVERED BY THIS PAGE. THE "EIGHTH REVISION, INTERNATIONAL CLASSIFICATION OF DISEASES, SECTION XVII WILL BE USED TO CATEGORIZE ALL INJURIES.

ENTER THE PROPER CODE IN THE SPACE PROVIDED AS WELL AS A NARRATIVE DESCRIPTION OF THE INJURY.

ENTER THE APPROPRIATE CODE FOR THE "EVENT CAUSING INJURY" AT THE RIGHT.

| EVENT CAUSING INJURY | |
|---|---|
| STRUCK INTERIOR OF AIRCRAFT AT IMPACT | A |
| STRUCK BY FLYING OBJECT INSIDE AIRCRAFT | B |
| BURNS ONLY | C |
| BURNS FOLLOWING OTHER INJURIES | D |
| CRUSHED IN WRECKAGE | E |
| CONTACT WITH PROP/INTAKE/EXHAUST | F |
| FELL FROM AIRCRAFT (OR THROWN) | G |
| STRUCK BY AIRCRAFT | H |
| PULLED UNDERWATER | J |
| STRUCK BY MAIN ROTOR | K |
| STRUCK BY TAIL ROTOR | L |
| STRUCK INTERIOR OF AIRCRAFT IN TURBULENCE | M |
| STRUCK BY DISPLACED COMPONENT/STRUCTURE | N |

| | CODE | |
|---|---|---|
| 2507 | | 2508 |
| 2509 | | 2510 |
| 2511 | 805 | 2512 |
| 2513 | 869 | 2514 |
| 2515 | 844 ~~929~~ | 2516 |
| 2517 | 845 | 2518 |
| 2519 | 840 | 2520 |
| 2521 | 994 | 2522 |
| 2523 | | 2524 |
| 2525 | | 2526 |

NOTES:

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

## VUE EN ÉLÉVATION DU LIEU

FAIRE UN CROQUIS DES PISTES, OBSTACLES, TRAJECTOIRE DE VOL, ETC. INDIQUER LES DISTANCES ET DIMENSIONS IMPORTANTES.

## VUE EN PLAN DU LIEU

FAIRE UN CROQUIS DE LA ZONE D'ATTERRISSAGE, DES OBSTACLES, DE LA TRAJECTOIRE DE L'AÉRONEF, ETC. INDIQUER LES DISTANCES ET DIMENSIONS IMPORTANTES, ET LE VECTEUR VENT.

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

APPENDIX 1

STATEMENT

s.19(1)

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

MINISTRY OF TRANSPORT
AIRCRAFT ACCIDENT INVESTIGATION DIVISION
ONTARIO REGION

| Aircraft Type | Registration | Date |
|---|---|---|
| DEHAVILLAND FOX MOTH | C-FDJB | September 5th, 1976 |
| Interviewer: S. A. Musson | | Statement date/time |

Statement taken

☐ In long hand ☒ By recorder ☐ Over telephone ☒ Personal presence

## STATEMENT OF WITNESS

Your name GARTH M. MARTIN Age

Address [redacted] Phone

Occupation ATR Pilot - Wardair Aviation Experience ATR

Where were you when the accident happened? Pilot-In-Command of C-FDJB

In your own words, state what you know of the accident.

Q - If you could just start off Garth and tell me pretty well everything you can recall about the flight, from the take-off at the Island and that sort of thing.

A - Well we took off from the Island, right about 10 minutes after 2 o'clock, 'cause I was suppose to be on stage at 2:15, I took off, did a right turn and I held just to the east of the button of runway 3 3. I started my run in to the stage at a minute and 20 seconds prior to 2:15. I was just south of Ontario Place when Boss Control said a sail plane, which was ahead of me, was running a little late and I did a 360 to the left and continued in well outside the, south of Ontario Place. As the sail plane left the stage area and went back to the Island I came in about, a little bit to the west of centre stage in a right turn, a right 3 60, which was going to be followed by a left 3 60, further to the west in front of the crowd and I was about half way around the 3 60 when the airplane flicked to the right and went into a spin. Now I don't really remember anything of the, of the spinning itself nor the impact but I was aware of people at the airplane, which I understand happened very quickly after the airplane was in the water because when they ah came to the airplane, now I don't know whether they were right at the airplane or just close to it, by the time I was aware of what's going on. And ah, my seatbelt had either, I have a bruise on my thigh so my seatbelt either had broken lose somewhat or else I had undone it and stood up because of the water. I think I was probably standing on the seat and ah they were coming to get me and I said don't worry about me get my partner out of the cabin.

Q - It was you that mentioned that?

A - Yes. I think I mentioned that at least 2 or 3 times and pointed down into the, in front of me on the right hand side because the people were on the right hand side of the airplane. I said I'm okay, get my partner out, which they did, and to my knowledge he was in the boat, I saw them doing mouth to mouth resuscitation with him in the boat before I got out of there, the airplane into the rescue boat myself.

Q - How about turbulence? Can you recall was it turbulent at all?

A - There was a gusty wind, this is my views, probably what did me in.

.....2

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*



Q - How about altitude?

A - 300 t, that's above the water.

Q - The other thing too, were you wearing a shoulder harness? Was there a shoulder harness in this aircraft?

A - No shoulder harness in the airplane, just a seatbelt.

Q - We wondered about that because some people had said there was a shoulder harness, and I wondered if it had failed and just got lost in the water.

A - No, just a seatbelt.

Q - So as far as you can recall there was no difficulty with the aircraft, there didn't seem to be any, it was probably routine up until the point where it flicked.

A - Routine, and it completely surprised me because it flicked up to the right, if it flicked to the left I might have had a little chance but it flicked to the right and I knew it had gone to the right I could see water above me.

Q - Do you have any idea what airspeeds you were at, at that particular time?

A - Well I entered it at 75 knots and it seems to me I remember seeing 60 knots in the last, you know, just prior to it...

Q - What does it normally cruise at?

A - It cruises about 75 knots.

Q - 75 knots aye. How about the flights before, were you having any difficulties with the airplane, was there anything, the rigging or anything at all?

A - No, I had rigging difficulties when we first rebuilt the airplane but fixed the trimming and had the airplane re-rigged as well.

Q - Where was that done?

A - I was re-rigging it as I flew eastbound with attachable trim taps then here we ah removed all of those except for the one fixed tap, which is on the rudder, and ah attached trimming devices on them.

Q - Okay, so it was just a matter of the trim taps more than anything else.

A - Yes. And then we got the rigging diagrams and re-rigged the airplane as well and we were able to remove a little bit of the trimming devices we'd put on.

Q - I see. Was that done here in Toronto?

A - Done here in Toronto, at Brampton, yes.

Q - Brampton aye?

A - Yes. As a matter of fact by [redacted] and myself.

Q - How about, were there any fixed trims at all on the ailerons? Have you ever had any fixed trims at all on the ailerons?

A - Not a fixed trim. I had on like a portable one, if you will, you know, the attached ones I had on the flight down from the west.

Q - That wasn't on here at all then?

A - No, that had been replaced by the trimming device under the trailing edge bottom of the right hand aileron.

Q - So you were quite happy with the way it was flying, you hadn't been having any difficulty in as far as rigging....

A - No, I wasn't having any difficulty with it, it flew pretty well hands off at cruising, at cruising speed.

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*



Q - How about your flying history up to this point. I've been through your file now, and you' done alot of heavy aircraft flying and that. Have you done much light airplane flying?

A - Well the ah, the Otter with the reserve not so much the last 2 years.

Q - How long ago would that be?

A - [redacted]

Q - Most of the other stuff's been fairly heavy I guess?

A - Fairly heavy, yes.

Q - Had you ever flown anything like that? Had you flown a Tiger Moth at all?

A - No I hadn't.

Q - So it was you first?

A - Yes.

Q - I guess there's not really much opportunity to be checked out on something like that, I guess you just talk to somebody and go in, that's about all you can do aye?

A - [redacted]

Q - Had you done spins or stalls in this aircraft?

A - Yah, I had done stalls and just a start of a spin.

Q - What speed did it usually stall at?

A - It was stalling about 40 knots, maybe a touch under.

Q - Much the same as any other light airplane sort of thing.

A - Yah.

Q - Did it have a tendency to drop a wing in a stall?

A - If anything, a little bit to the left but not very much.

Q - How about power on stalls. Have you done any power on stalls?

A - No, power off stalls.

Q - Okay. How about the, ah, had you attended the briefing for the airshow that morning?

A - Yes I had.

Q - Was there any part of that briefing that influenced anything that you did at the airshow?

A - No, I don't ah, I'd attended all the briefings for the previous three days in a row.

Q - This was the first day you were scheduled to fly though aye?

A - First day, yes.

Q - So there was nothing at the briefing that you...you were happy with everything the way it was going and this sort of thing, and there was nothing.

A - Yah, I was happy and there was a gusty wind.

Q - Is there a weather briefing available to you before the show?

A - Yes there was a weather briefing at the....

Q - They give you upper winds and surface winds and all that sort of thing.

A - Yes.



.....4

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*



Q - And you had flown it in the Niagara Air Show?

A - The previous weekend, yes.

Q - Did you do basically the same maneuvers?

A - No, we'd had three airplanes in trail formation.

Q - It was more a formation type I guess rather than a solo.

A - Yah, it was sort of in ah 1/4 mile trail, with the three airplanes around a couple of times.

Q - How about here. Was there any opportunity before the airshow to practice the run here?

A - Not to practice on the site, no.

Q - You didn't aye?

A - No.

Q - Had you been through the routine previous?

A - Oh yes, I'd been through the routine a number of times for timing purposes.

Q - Yah, right. But not right on location sort of thing?

A - Not on the site itself, no.

Q - I guess there was no real purpose of Mr. Bennidict being on board other than just for the ride sort of thing.

A - Yes. He's the mechanic that's done most of the work on the Fox Moth so I asked him if he'd like to go for a ride and he wanted to go so there was no reason why he couldn't.

Q - What's the seating arrangement in that, it was damaged so bad we weren't able to tell, how many seats are actually up front in there?

A - There is a, the hammock seat and there is a forward seat, which was not yet installed.

Q - I see. This hammock seat, was it in the centre sort of thing of the cabin?

A - It's right in the area where the door is.

Q - So he'd be sitting in there facing forward I guess aye?

A - Facing forward, yes.

Q - There's no shoulder harness in there either?

A - No, just a lap belt.

Q - How much fuel do you think was on board at the time of the accident?

A - I figure 16 gallons.

Q - Sixteen aye. And that was where it was fueled at Malton?

A - It was fueled at Malton the day before and I had flown half an hour or just slightly more than a half an hour in practice on the Saturday and then when I, and that was from Malton and when I refueled it, just fueled to not quite full cause it always spills over and I have to keep wiping it up, and it's 25 gallons and ah then I had flown from Malton to the Island which involved close to half an hour again when I left on the Sunday at noon. So there'd been an hours flying on the airplane plus taxing and what not as well as the five minutes or so airborne before getting (clearance). So I would say 16 gallons, you know, within a gallon.

Q - Yah, right. The weight and balance as far as what had been figured for the aircraft was well within limits, you weren't having any trouble with....there was some discussion as to whether the ballast should be in there or out.

A - Yes, well what I was hoping to get down to situation with the airplane where I could have a disposable ballast so that I could carry three people.

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*



Q - In other words in order to carry three people in it the way it was you had to take the ball out, I guess, to stay within the limits.

A - Yes.

Q - Or else take some fuel off I guess.

A - Yah, well ah this was it, I really had a restriction to two people and I wanted to get that up to three and then when I didn't fly anybody have a disposable ballast, because we were putting a, just obtained a front seat and we were putting that in or would have been putting that in very shortly.

Q - What were the ah they were going to donate the aircraft to the museum aye and then were you just going to fly it on special occasions sort of thing.

A - No not ah, we weren't really donating it no we were hangaring it with the Historical Society as a convenience to us and it worked out well with there planes as well because the security of the hangars up there at Malton we weren't happy with.

Q - I see.

A - So we felt happier keeping the airplane up there worked out better, but no our plan was to keep the airplane available to the public sort of thing.

Q - I see. And how did you get involved with flying, were you just interested in the airplane and volunteered for it?

A - No, I was asked to do it by the sales department under Mr. Ward.

Q - Okay, I don't think, is there anything else you want to add to the end of the statement?

A - Well I don't really know, are you interested in what I think?

Q - Yes, of course, yah, you were there, closer than I was.

A - I know when I, the wind was north northwest and was gusty and this is what I feel what probably did me in. When I got around to that point in the turn [redacted] I was downwind, you know, then whether I got in a lull or gust quit and got into a lull, bang that was it. But I had no warning at all, it just flicked and flicked it away.

Q - Quite violently then aye?

Original As is

A - Yes.

Q - I guess you don't have any recollection of how much control you had on at that time. Do you have any idea of how much rudder you might have had on?

A - No, I'm not certain of that.

Q - Does it require much rudder control in the turns?

A - Not ah not too much no. I found that the rudder control was more required with changes of speed, you know, at approach speed or a higher speed, you know, if you were dipping down and then that speeds it up a little bit, you require some rudder and consequently on final approach you require a little rudder too because it was set for cruising.

Q - Yah, right. I noticed there was quite a bit of trim on the rudder. I tend to agree with you a bit about the wind because the part I saw when it seemed to get into trouble was definitely downwind at that point and it just seemed to be at that critical point.

A - The winds, as I was mentioning on the phone with you, there was this report of people hearing a crack no snap or anything like that I don't, I don't recall anything like that, I wouldn't have heard it in any event. The only other thing I can mention is ah did hear it from Boss Control later, the airshow committee, or was it Bill McVeen I guess it was mentioned talking to Bill Cole, he got pulled up 50 feet in one, in one wind sheer there and had an occasion too, so, you know, I knew the wind was there and it may have been more than I had anticipated.

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*



Q - I know the other thing I noticed too was that at one point the wind was kind of drifting you o the crowd and I wondered if you could recall, you know, do you recall sort of tightening the turn a little more than you intended to do?

A - No I don't recall any of this. I sort of had a fixed ah in all my practicing in turns and what not I figured I had about a 35° bank turn with the struts ahead of me and everything else.

Q - Okay, that's fine, thankyou.

S. Musson

CERTIFIED CORRECT
S. A. Musson

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

s.19(1)

INTERVIEW WITH MR. J. BENEDIK

PASSENGER ON BOARD CF-DJB

Mr. Benedik was interviewed September 3rd, 1976. He stated he did not remember much about the flight. He could remember arriving at the Island Airport, getting on board CF-DJB, and fastening his seat-belt.

He stated that it had been pre-arranged with Mr. Martin that he would ride as passenger, and that he had been on board the aircraft during the Niagara Air Show.

Mr. Benedik stated he had worked on CF-DJB and that to his knowledge there were no problems with the aircraft.

Dr. Murray Naiberg was present during the interview.

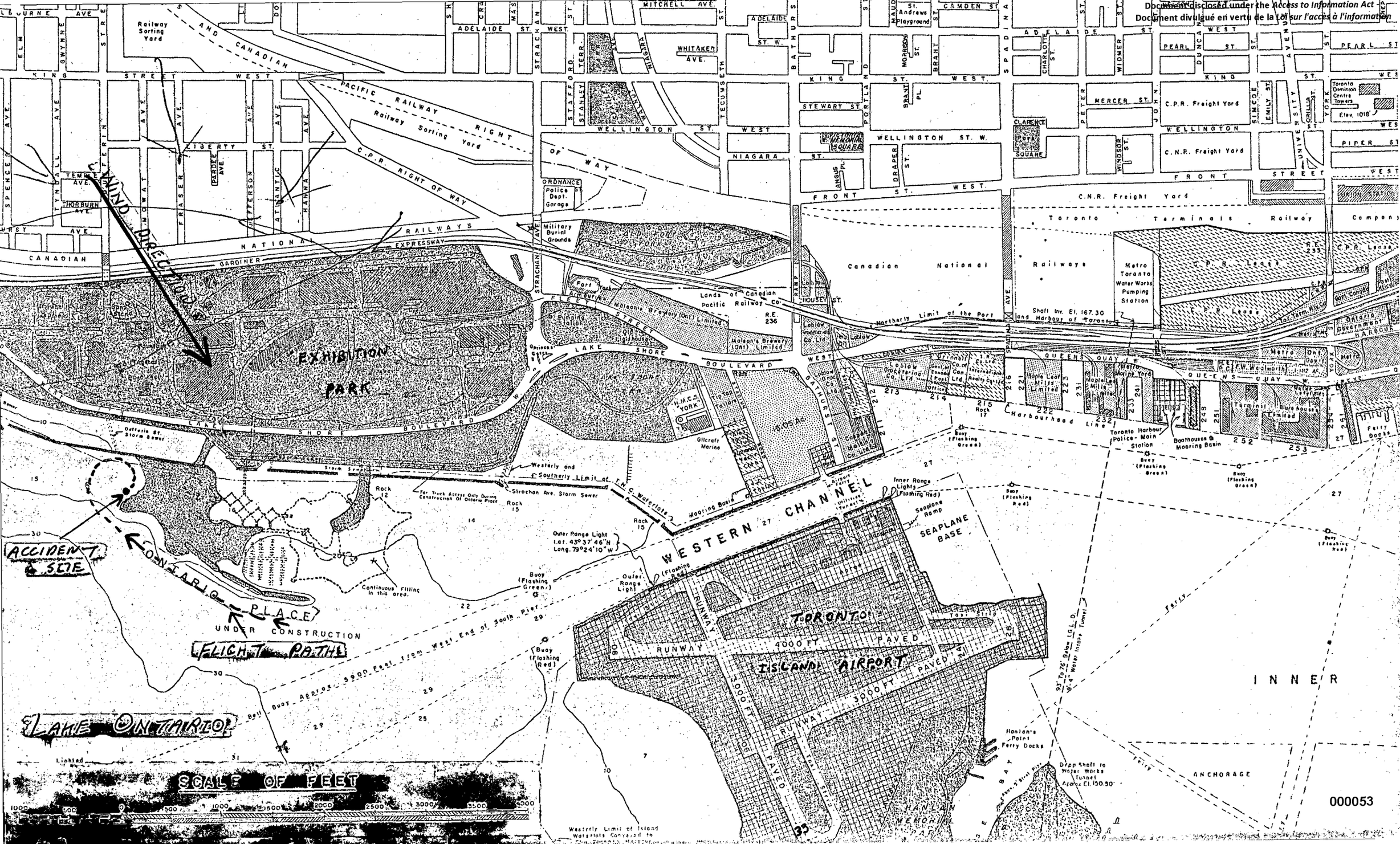
CERTIFIED CORRECT
S. A. Musson

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

APPENDIX 11

MAP

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*



Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

APPENDIX 111

HARBOUR POLICE REPORT

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

s.19(1)

# THE TORONTO HARBOUR COMMISSIONERS

## TORONTO HARBOUR POLICE

A1 AIRCRAFT CRASH - **DROWNING REPORT** - Artificial resuscitation Life restored

Main Station. Date Sunday September 5th 1976

| | |
|---|---|
| 1. (a) Name, (b) sex, (c) age, (d) height and (e) weight of person imperiled. | 1. (a) Benedik, Jiri Jan (George) (b) male [redacted] |
| 2. P.O. address. | 2. [redacted] |
| 3. Day and hour of accident. | 3. 1416 hours, Sun. Sept. 5/76 |
| 4. Distance and direction from station. | 4. 50' west of Ontario Place |
| 5. Was scene of accident visible from station? | 5. No. Wind- 320°, 16Knots to 21 knots |
| 6. Cause of accident. | 6. aircraft crash CNE Air show |
| 7. Temperature of water and atmosphere. | 7. Water 10°c , Air 17°C. |
| 8. Length of time under water. | 8. 4 to 5 minutes |
| 9. By whom taken from water. | 9. Robert Riekstins, T.H.P. |
| 10. Did patient rise to the surface after falling into water? If so, how many times? | 10. No. |
| 11. Did patient breathe when taken from the water? (Also state what other signs of life were apparent, if any). | 11. No. |
| 12. How soon after notification of accident did members of Service arrive on scene? | 12. No. |
| 13. Was patient breathing when taken in charge by members of Service? (Also state what other signs of life were apparent, if any.) | 13. No - none. |
| 14. Were patient's jaws clenched? | 14. [redacted] |
| 15. How soon after artificial respiration was begun did patient show signs of life? | 15. [redacted] |
| 16. What were the first signs of life shown by the patient? | 16. [redacted] |
| 17. What signs of life, if any, were shown by the patient while water was being expelled from the lungs? | 17. Nil. |
| 18. State probable quantity of water expelled or drained through the mouth. | 18. [redacted] |
| 19. Length of time artificial respiration was employed. | 19. [redacted] |
| 20. What means were employed during process of artificial respiration to impart warmth to the extremities? | 20. None. |
| 21. What means were employed to restore circulation? | 21. [redacted] |
| 22. What stimulants, if any, were administered? | 22. None. |
| 23. Result. | 23. Respiration and pulse restored. |

(over)

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

s.19(1)

# CASE HISTORY

At 1415 hours Sunday September 5th 1976 a DeHavilland Fox Moth bi-plane performing at the C.N.E. air show apparently lost control and crash landed in an upright (pan cake) attitude facing in a northwest direction about 30 to 50 feet west of the west island off Ontario Place and came to rest in about 10 to 15 feet of water just northwest of the helicopter launching pad.

At 1416 hours, T.H.P. boats #'s 10, Rescue 1 and 2 outboards responded and on arrival of L/H R. Riekstins & L/G D. Shaw, a person on shore indicated that a person was in the aircraft, which at this time was submerged with only the tail showing above water.

R. Riekstins immediately dove into the water and found the victim strapped into the forward seat and motionless.

On the 3rd dive Riekstins was able to release the seat belt and pull victim from the aircraft and to the surface.

The victim was put aboard the Sunnyside Boston whaler and P/O B. Butler started mouth to nose A/R (due to injuries to victims mouth). Ecternal cardiac massage was started by L/H E. Follert as the victim was being transported to the First Aid station at C.N.E. Aquarama boat ramp.

On arrival at ramp the victim abruptly showed signs of life, breathing laboured but steady and pulse weak but steady.

Victim was transported by Metro ambulance #904 with M.T.P.D. escort.

L/H E. Follert assisted in ambulance and accompanied victim to Toronto Western hospital.

Staff Dr. Wilkinson and staff attended victim at hospital.

Pilot of aircraft who had also sustained injuries was taken to St. Josephs hospital for treatment for [redacted]

Pilot was a Garth Martin [redacted]

Victim was a passenger and aircraft mechanic employed by Wardair.

Aircraft was removed from water at about 2000 hours on Sun Sept 5/76 by Derrick #50 with the assistance of T.H.P. Scuba divers Hales & Kennedy.

At time of this report 1000 hours Sept. 6th 1976 the victim was reported to be in critical condition.

3/Officer R. Carroll *Officer in Charge.*

*Examined and forwarded,* Sun 6th Sept. *19* 76

E. G. Norrey

*Superintendent of Toronto Harbour Police.*

E. G. Norrey.

Document disclosed under the Access to Information Act -
Document divulgué en vertu de la Loi sur l'accès à l'information

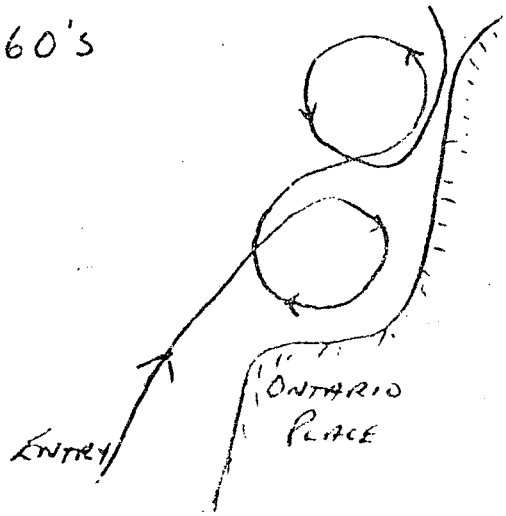
APPENDIX IV

PLANNED MANEUVERS FOR THE AIR SHOW

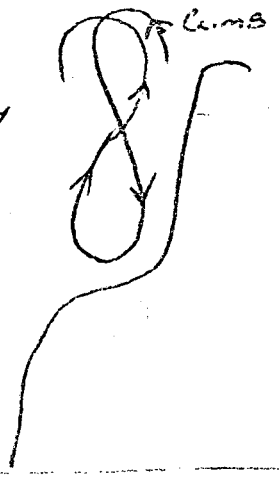
Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

WARDAIR " FOX

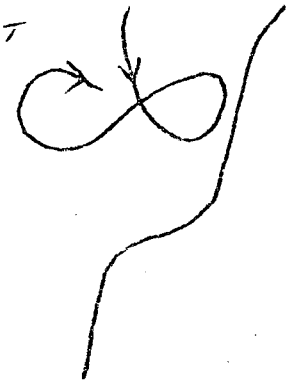
1. TWO 360'S



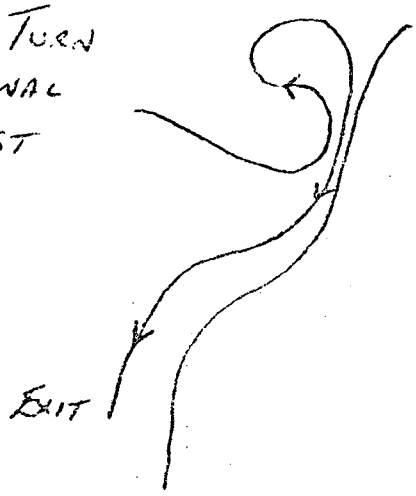

2. LAZY EIGHT
WITH PRACTICALLY
A STALL TURN
AT EACH END




3. LAZY EIGHT
IN OPPOSITE
DIRECTION.



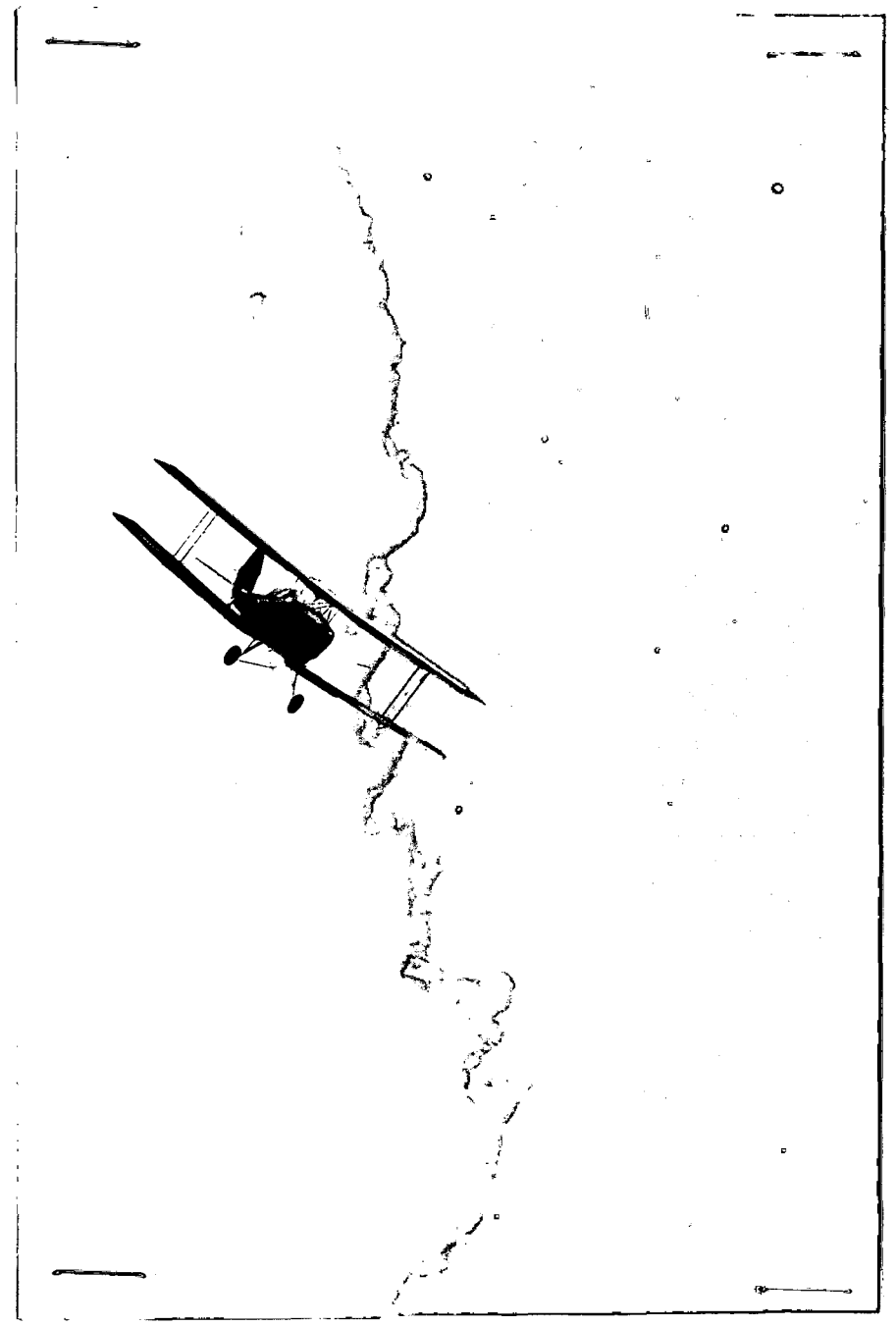
4. STALL TURN
AND FINAL
FLY PAST



Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

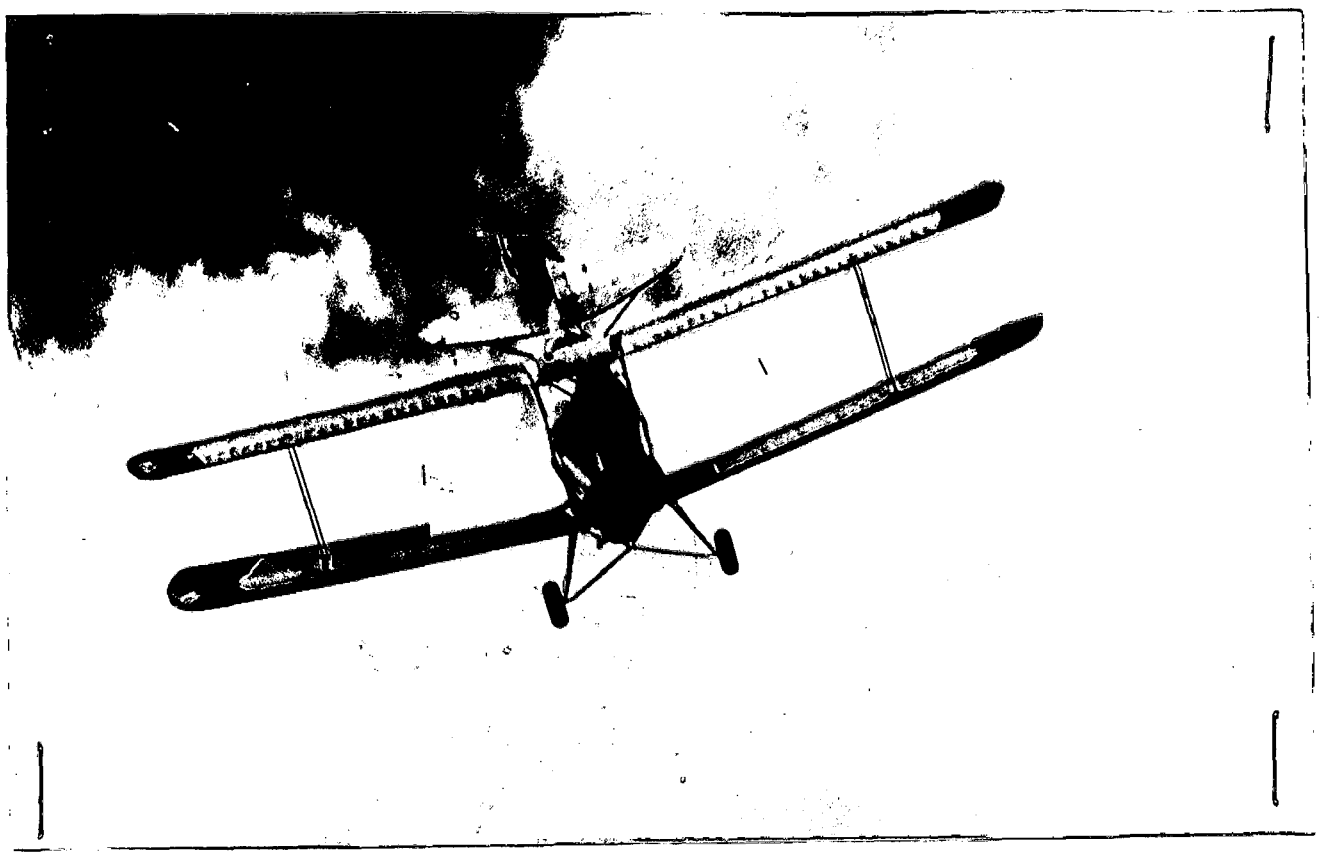
APPENDIX ✓

PHOTOGRAPHS



Document disclosed under the *Access to Information Act*
Document divulgué en vertu de la *Loi sur l'accès à l'information*

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*



Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

Document disclosed under the *Access to Information Act*
Document divulgué en vertu de la *Loi sur l'accès à l'information*

V. K. McPHERSON
W. G. MacSWAIN
S. A. MUSSON
A. J. M[illegible]ELL
R. A. PHILLIPS
J. D. BURTON
B. ASTON
C. M. BATCHELOR
R. D. GOODBRAND
R. BISHOP
S. M. LIU

COPA
"FLIGHT SAFETY IS REALLY A STATE OF MIND"
FLIGHT SAFETY BULLETIN
P.O. BOX 734, STATION B, OTTAWA, CANADA K1P 5S4
THIS LITERATURE MADE POSSIBLE BY VOLUNTARY CONTRIBUTIONS TO THE COPA FLIGHT SAFETY FUND

January 1977 No. 108

Please note

# FLY HIGH

Imagine for a moment that you are about to perform a steep 720° turn for your commercial flight test. Think of all the steps necessary for a satisfactory performance. Complete the maneuver in your mind, roll out to level flight and then let's discuss it. Did you perform the maneuver at a safe altitude? Clear traffic? Where did you look to maintain level flight? Did you use 50 degrees of bank? Were you able to hold the altitude within 100 feet? What would you do if you were losing altitude? Did you add power as the bank increased? The fact that this maneuver is frequently failed on commercial and flight instructor flight tests because of inability to maintain 100 feet altitude plus or minus is not the point of this article. In recent months there has been an alarming number of low flying complaints and accidents resulting from low altitude maneuvers. The majority of these incidents involve pilots who have flown in a manner far beyond their ability. If 200-hour pilots have trouble demonstrating steep turns without losing 100 feet of altitude while watching the nose of the aircraft to maintain proper pitch altitude, how can he be expected to make steep turns at 50 feet above the ground while watching persons or events on the ground. Pipeline patrol pilots must obtain waivers to fly at lower altitude, usually 500 feet AGL. Some of the most proficient pilots in the country who fly aerobatic demonstrations at airshows are required to demonstrate their ability for years before being allowed to perform at altitudes below 500 feet. In spite of this, each week reports are received which indicate inexperienced pilots are operating aircraft within 100 feet of the ground. Some aerodynamics and illusions should be discussed at this point.

When an aircraft is banked, lift must be increased in order to maintain level coordinated flight. Accompanying any increase in lift is the penalty of induced drag. In other words the force we produce when we pull back on the stick is not straight up but rather up and back. The "up" part is lift; the back part is induced drag. Undesirable as it is, it cannot be avoided. The chart shows that induced drag is increased 300% in a 60° banked turn. Unless you have sufficient horsepower to overcome a 300% increase in drag, your airspeed will start to decrease. Now, at a time when the airspeed is decreasing, the stall speed is increasing. An aircraft that normally stalls at 50 MPH will stall at 100 MPH if placed in a 75 degree bank turn. It will stall at 100 MPH in something less than 75 degrees of bank if it sustains heavier "G" forces because of turbulence on rough control handling.

So much for aerodynamics: Now for the illusions. For the sake of this discussion, wind shear and its effects are not being considered. Although the aircraft itself is not affected differently whether flown upwind or downwind, its path over the ground is affected. An aircraft making a 360 degree constant bank turn will not follow a circular path over the ground in anything but calm air. If wind is present, the rate of turn must vary in order to stay in one location, such as a pilot might do to circle his home to "thrill the folks". If he is operating at a low altitude, the ground becomes one of the pilot's main references as he attempts to maintain a perfect circle, and less and less time is spent looking for pitch information or traffic. As he turns from an upwind direction to a downwind direction, three things happen that could affect his judgment.

1. His groundspeed increases, developing a false sense of security since he thinks his airspeed has increased. 2. Because of the aircraft's drift into the center of the circle, the rate of bank may be increased in order to see the point of interest. The steeper bank tightens the turn and . . . 3. The most disturbing element is the illusion that the aircraft is in a severe slip. If the illusion is accepted, the pilot will correct the slip automatically by applying bottom rudder which tends to cause further overbanking which he compensates for by opposite aileron. This can progressively deteriorate until a stall/spin configuration is reached at too low an altitude to recover. This is not just a theory. It has happened all too frequently in traffic patterns when a turn from a left downwind to final takes place at a low altitude with a left crosswind on final.

Records of the earliest flights by the Wright Bros. describe an incident near Dayton, Ohio, where the brothers were preparing to demonstrate a roundtrip flight for the U.S. Army. Wilbur was flying the new craft in a circular path when it seemed to develop severe instability — the ground seemed to rush up to meet him. Shaken, he landed to discuss the problem with Orville who had watched the flight which appeared normal. They decided to fly the same course again with a piece of string tied in front of the pilot in the same way sailplane pilots do today in order to obtain first hand slip skid information. The flight proved the stability of the aircraft and unleashed the problem of the "downwind turn". This article was not designed to help you fly safely close to the ground. Its sole purpose is to convince you to see Canada from a safe altitude. Buzzing, hedge hopping, low altitude maneuvers by inexperienced pilots are dangerous and stupid. Flying loses supporters each day because of inconsiderate low flights. Don't add to this problem — don't become a statistic.

## STATIC ELECTRICITY IN CLOTHING

Recently, a pilot received first- and second-degree burns when his underclothes were ignited by static electricity. He was preflighting a Twin Bonanza which had just been refueled and moved into the hangar because of cold weather. The fuel expanded as the temperature increased. When the pilot opened the fuel cap during his inspection, fuel gushed out, soaking his arm and legs. The pilot went immediately to the locker room and removed his Nomex flight suit. Static electricity ignited the fumes as he started to remove his winter underwear.

In another incident, a fuel tanker operator received second- and third-degree burns when the fuel he was recirculating was ignited by static electricity. He was wearing a cotton uniform and a nylon jacket.

Outer clothing builds a charge not only by absorbing part of the body charge but also by rubbing against the body and underwear. When the charged clothes are removed, the electrical tension or voltage increases to a danger point. If the clothes are wet with fuel, the danger is even greater. Fuel-soaked clothes can burst into flames as they are removed. Sparks can also be generated by worn footwear. Soles so worn that nails are exposed present a serious danger since fuel spills in refueling areas are common and fuel vapors near the ground ignite easily.

Recent tests by the Air Force indicate that the buildup of static electricity does not differ greatly by uniform type. A blend or synthetic uniform is no more dangerous than a pure cotton uniform. The tests do show that it is possible to exceed 2,650 volts when the uniform is removed. Theoretically, 2,650 volts can ignite gasoline-air mixtures (vapor). Other variables such as temperature and humidity may affect the static buildup, but regardless of this, the tests indicate there is a potential danger and it differs little with uniforms or mixes of uniforms.

If fuel gets on your clothes, leave the refueling area immediately and deluge or thoroughly soak the clothes before you take them off. If there is not enough water at the site to soak the clothes thoroughly, ground yourself to a piece of grounded equipment by taking hold of it before you take off the fuel-soaked clothes.

*Flying is for those who are willing to be just a little more careful*

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

Interview with Mr. J. Benedick - CF-DSB
Passenger on board CF-DSB

Mr. Benedick was interviewed Sept 3 1976
He stated he did not remember much about the flight
He could remember arriving at the Island airport, ~~and~~ getting on board CF-DSB., and fastening his seat belt.
He stated that it had been pre-arranged ~~they~~ with Mr. Martin that he would ride as passenger, and that he had been on board the aircraft during the Niagara air show.
Mr. Benedick stated he had worked on CF-DSB and that to his knowledge there were no problems with the aircraft.

[redacted]

Dr. Murray Rosberg was present during the interview.

s.19(1)

Steve

[redacted]ment disclos[redacted]es
[redacted]t divulgué en vertu de [redacted] Loi sur l'acc[redacted]

s.19(1)

JI[redacted] BENEDIC

[redacted]

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

CFB Tor. - 6336200 (401)



1330 - 1430 - 8000'
1330 · 1345 - 150

1976

CANADIAN INTERNATIONAL AIR SHOW

FLIGHT SCHEDULE

7500' - 5 mi.

September 3, 4, 5, 6

FULL Show Rev # 4 Date: 31 Aug 76 WX: CIG 7500 Vis 5 NM

| # | EVENT | A/C TYPE & NO | ARPT | DURATION On Stage | DURATION Time | DURATION Off Stage | REMARKS |
|---|---|---|---|---|---|---|---|
| 1 | Canadian Forces<br>Call signs | CF 104 (2)<br>21 PS | TR | 1330:00 | 7:00 | 1337:00 | Fri-Sat-Sun Only<br>Hold if req'd 089/15<br>"5T" Tacan<br>Alt as req'd |
| 1A | US Air Force Thunderbirds | T38 Talon (5) | TR | 1330:00 | 12:00 | 1342:00 | Mon Only<br>Hold if req'd 089/15<br>"5T" Tacan<br>Alt as req'd |
| 2 | US Air Force | B-52 | RME | 1337:00 | 5:00 | 1342:00 | Fri Only<br>Hold if req'd 089/15<br>"5T" Tacan<br>Alt as req'd |
| 2A | Helicopter Demo | Bell Long Ranger | TZ | 1337:00 | 5:00 | 1342:00 | Sat-Sun Only |
| 3 | Quebec Gov't Air Service | CL 215 (2)<br>Smokey 1+2 | TZ | 1342:00 | 5:00 | 1347:00 | Hold east of TZ if req'd |
| 4 | US Navy | P-3 Orion | ZD | 1347:00 | 4:00 | 1351:00 | Fri-~~Sun~~ Mon Only<br>Hold if req'd 089/15<br>"5T" Tacan<br>Alt as req'd |
| 4A | Helicopter Demo | Hughes 500 | TZ | 1347:00 | 4:00 | 1351:00 | Sat-Mon Only |
| 5 | Descenders Parateam | Cessna 180<br>6 jumpers (3+3)<br>2 aircraft | TZ | 1351:00 | 5:00 | 1356:00<br>to 1325 | Streamer drop prior to show - Hold in position at jump alt |

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*


1976

CANADIAN INTERNATIONAL AIR SHOW

FLIGHT SCHEDULE

September 3, 4, 5, 6

FULL Show Rev # 4 Date: 31 Aug 76 WX: CIG 7500 Vis 5 NM

| # | EVENT | A/C TYPE & NO | ARPT | DURATION On Stage | DURATION Time | DURATION Off Stage | REMARKS |
|---|---|---|---|---|---|---|---|
| 6 | Ed Mahler | PJ-295 PJ. | TZ | 1356:00 | 8:00 | 1404:00 | |
| 7 | US Air Force | F-15 Eagle Eagle | TR | 1404:00 | 6:00 | 1410:00 | Hold if req'd 089/15 "5T" Tacan Alt as req'd |
| 8 | Oscar Boesch<br>Peter Ober | ASW Sailplane<br>Cessna 172 | TZ | 1410:00 | 5:00 | 1415:00 | Tow-by during CL 215 Hold in position at release altitude (3,000 ft) |
| 9 | US Army Silver Eagles | Hughes 500 (7) silver | ZD TZ | 1415:00 | 15:00 | 1430:00 | Fri-Sat Only Form up and hold Gibralter Point |
| 9A | Garth Martin | Wardair Fox Moth | TZ | 1415:00 | 4:00 | 1419:00 | Sun-Mon Only |
| 9B | Parade of Helicopters | Various | TZ | 1419:00 | 6:00 | 1425:00 | Sun-Mon Only |
| 9C | Canadian Warplane Heritage | Harvards (4) | TZ | 1425:00 | 5:00 | 1430:00 | Sun-Mon Only Form up and hold east of TZ |
| 10 | Frank Tallman | Grumman Duck Duck | TZ | 1430:00 | 8:00 | 1438:00 | |
| 11 | Canadian Forces Skyhawks | Otter 2+2+5 | TZ | 1438:00 | 8:00 | 1446:00 | 7500' Streamer drop during Ed Mahler - Hold in position at jump alt (8,000 ft) |

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*


1976

CANADIAN INTERNATIONAL AIR SHOW

FLIGHT SCHEDULE

September 3, 4, 5, 6

FULL Show Rev # 4 Date: 31 Aug 76 WX: CIG 7500 Vis 5 NM

| # | EVENT | A/C TYPE & NO | ARPT | DURATION On Stage | Time | Off Stage | REMARKS |
|---|---|---|---|---|---|---|---|
| 12 | Canadian Forces Air Reserve | Otters (3) Otters<br>Tracker<br>Dakota<br>Twin Otter | TZ ~~ZD~~ | 1446:00 | 4:00 | 1450:00 | Form up and hold east of TZ |
| 13 | Gerry Younger | Pitts Special | TZ | 1450:00 | 8:00 | 1458:00 | |
| 14 | Jerry Billing | Spitfire Spit.<br>Mark IX | ~~ZD~~ | 1458:00 | 5:00 | 1503:00 | Hold east of TZ if req'd |
| 15 | US Air Force | SR 71 Blackbird | Beale YZ | 1503:00 | 5:00 | 1508:00 | Fri-Mon Only<br>Hold if req'd 089/15 "5T" Tacan<br>Alt as req'd |
| 15A | Canadian Forces JATO Demo | C-130 Hercules | ZD | 1503:00 | 5:00 | 1508:00 | Sat-Sun Only<br>Hold if req'd 089/15 "5T" Tacan<br>Alt as req'd |
| 16 | WW II Warbirds | Mitchell<br>Corsair<br>Mustang<br>Firefly<br>Lightning | TZ | 1508:00 | 8:00 | 1516:00 | Form up and hold east of TZ |
| 17 | Canadian Forces | CF 5 (5) Pogo | TR | 1516:00 | 5:00 | 1521:00 | Hold if req'd 089/15 "5T" Tacan<br>Alt as req'd |
| 18 | Canadian Reds<br>Rod Ellis<br>Bill Cowan | Pitts Special (2) | TZ | 1521:00 | 10:00 | 1531:00 | Form up and hold east of TZ |
| 19 | Royal Air Force | Vulcan Vulcan | TR | 1531:00 | 6:00 | 1537:00 | Hold if req'd 000070 5<br>"5T" Tacan<br>Alt as req'd |

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*


1976

CANADIAN INTERNATIONAL AIR SHOW

FLIGHT SCHEDULE

September 3, 4, 5, 6

FULL Show Rev # 4 Date: 31 Aug 76 WX: CIG 7500 Vis 5 NM

| # | EVENT | A/C TYPE & NO | ARPT | DURATION On Stage | Time | Off Stage | REMARKS |
|---|---|---|---|---|---|---|---|
| 20 | de Havilland Demo | Dash 7 | TZ ZD | 1537:00 | 4:00 | 1541:00 Scarborough spit | Fri-Sat Only Hold east of TZ as req'd |
| 21 | Joe Hughes Steve Trevor | Super Stearman | TZ | 1541:00 | 8:00 | 1549:00 | Fri Only |
| 22 | Canadian Forces Snowbirds | Tutors (9) | SN | | | | Hold if req'd 170/10 "5T" Tacan Alt as req'd |
| | | | | 1549:00 | 23:00 | 1612:00 | Fri |
| | | | | 1541:00 | 23:00 | 1604:00 | Sat |
| | | | | 1537:00 | 23:00 | 1600:00 | Sun, Mon |

NOTES:

#1 Canadian Warplane Heritage Harvards will be providing pre-show fly-bys along the waterfront outside breakwater.

#2 Back-up segments if required will be provided by:

- Canadian Warplane Heritage Harvards
- Canadian Forces' Rescue Helicopter
- Civil Helicopters

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*



1976

CANADIAN INTERNATIONAL AIR SHOW

FLIGHT SCHEDULE

September 3, 4, 5. 6

LOW Show Rev # 4 Date: 31 Aug 76 WX:CIG 1500 Vis 3 NM

Note:

The Flight Schedule for the LOW and FULL Show are essentially the same. The difference being that some routines in high performance aircraft and para demonstrations will be modified or replaced to accommodate the reduced ceiling. Stage times will remain the same.

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*



1976

CANADIAN INTERNATIONAL AIR SHOW

FLIGHT SCHEDULE

September 3, 4, 5. 6

FLAT Show Rev # 4 Date: 31 Aug 76 WX:CIG 2500 Vis 3 NM

Note:

The Flight Schedule for the FLAT Show and FULL Show are essentially the same. The difference being that some manoeuvres in high performance aircraft may be limited.

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*



1976

CANADIAN INTERNATIONAL AIR SHOW

FLIGHT SCHEDULE

September 3, 4, 5, 6

LIMITED VIS Show Rev # 4 Date: 31 Aug 76 WX: CIG Unlimited Vis 2 NM

| # | EVENT | A/C TYPE & NO | ARPT | DURATION | | | REMARKS |
|---|---|---|---|---|---|---|---|
| | | | | On Stage | Time | Off Stage | |
| 1 | Canadian Reds<br>Rod Ellis<br>Bill Cowan | Pitts Special (2) | TZ | 1330:00 | 10:00 | 1340:00 | Form up and hold east of TZ |
| 2 | Helicopter Demo | Bell Long Ranger | TZ | 1340:30 | 5:00 | 1345:30 | |
| 3 | Descenders Parateam | Cessna 180 | TZ | 1346:00 | 5:00 | 1351:00 | Streamer drop prior to show - Hold in position at jump alt |
| 4 | Ed Mahler | PJ-295 | TZ | 1351:30 | 10:00 | 1401:30 | |
| 5 | Quebec Gov't Air Service | CL 215 (2) | TZ | 1402:00 | 7:00 | 1409:00 | Form up and hold east of TZ if req'd |
| 6 | Oscar Boesch<br>Peter Ober | ASW Sailplane<br>Cessna 172 | TZ | 1409:30 | 5:00 | 1414:30 | Nil tow-by<br>Hold in position at release alt (3000 ft) |
| 7 | Gerry Younger | Pitts Special | TZ | 1415:00 | 10:00 | 1425:00 | |
| 8 | Canadian Warplane Heritage | Harvards (4) | TZ | 1425:30 | 7:00 | 1432:30 | Form up and hold east of TZ |
| 9 | Canadian Forces Skyhawks | Otter/Huey | TZ | 1433:00 | 8:00 | 1441:00 | Streamer drop during Sailplane |
| 10 | Frank Tallman | Grumman Duck | TZ | 1441:30 | 10:00 | 1451:30 | |

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*



1976

CANADIAN INTERNATIONAL AIR SHOW

FLIGHT SCHEDULE

September 3, 4, 5, 6

LIMITED VIS Show Rev # 4 Date: 31 Aug 76 WX: CIG 7500 Vis 2 NM

| # | EVENT | A/C TYPE & NO | ARPT | DURATION | | | REMARKS |
|---|---|---|---|---|---|---|---|
| | | | | On Stage | Time | Off Stage | |
| 11 | Jerry Billing | Spitfire Mark IX | TZ | 1452:00 | 5:00 | 1457:00 | |
| 12 | Garth Martin | Wardair Fox Moth | TZ | 1457:30 | 4:00 | 1501:30 | |
| 13 | de Havilland Demo | Dash 7 | ZD TZ | 1502:00 | 4:00 | 1506:00 | Fri-Sat Only Hold east of TZ as req'd |
| 13A | Canadian Forces Helicopter Demo | Voyageur Huey | TZ | 1502:00 | 4:00 | 1506:00 | Sun-Mon Only |
| 14 | Joe Hughes Steve Trevor | Super Stearman | TZ | 1506:30 | 10:00 | 1516:30 | Fri Only |
| 15 | WW II Warbirds | Mitchell Corsair Mustang Firefly Lightning | TZ | 1517:00 | 10:00 | 1527:00 | Fri Form up and hold east of TZ |
| | | | | 1506:30 | 10:00 | 1516:30 | Sat-Sun-Mon Form up and hold east of TZ |
| 16 | US Army Silver Eagles | Hughes 500 (7) | ZD TZ | 1527:30 | 15:00 | 1542:30 | Fri Form up and hold Gibralter Point |
| | | | | 1517:00 | 15:00 | 1532:00 | Sat Form up and hold Gibralter Point |

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

ANNEX "C" to
MEDICAL SUPPORT
FOR CIAS 1976

# DAILY CREW AND PASSENGER LISTING

C O N F I D E N T I A L

FLIGHT MANIFEST DATE OF FLIGHT: _____

| | NAME (FULL) | S.I.N. | DOB | EMERGENCY NOTIFICATION |
|---|---|---|---|---|
| CAPTAIN: | | | | |
| | | | | |
| | | | | |
| AIR CREW: | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| PASSENGERS: | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

NOTE: This form is for confidential medical use only and under normal circumstances will be destroyed at the end of the day's flight operation.

C O N F I D E N T I A L

(When Completed)

Document disclosed under the Access to Information Act
Document divulgué en vertu de la Loi sur l'accès à l'information

CFI

LEROY COOK

# To Spin or Not to Spin!

THERE WAS A time, only a couple of decades ago, when pre-solo student pilots were given training in spins before being allowed to wing it on their own. The theory was that by introducing the concept of spins early in the game, student pilots would respect stalls and what could happen if things were allowed to get out of hand. And, if a spin were to develop accidentally, they would at least have a rudimentary knowledge of how to break out and recover.

This notion paralyzes many people in the flight training business today, who are aware of the apprehension most students have of simple, straight-ahead stalls, let alone a full-blown spin. There is little overall enthusiasm for spin training, despite the "let's bring them back" urging of old-time aviators.

To understand the need for early-on spin training back in the '40s, we must remember the vast differences between flying then and now. The basic light training aircraft was a two-place tail-dragger, fabric-covered, 65 horsepower, no starter, no radio, no stall warner, very few instruments. The emphasis was placed on *flying* this sometimes obstinate beast, not holding a 25° bank angle on instruments or communicating with Stage III radar. It hasn't been so long ago that airplanes were not as safe and easy to fly, especially at slow speeds, due to design compromises that gave more leeway to performance rather than safety. By comparison, today's aircraft are like filter-tip cigarettes; the flavor's gone, but at least they're safer. After all, in the late '30s and '40s it was more or less expected that light sporting airplanes would be used for such aerobatics as they might be capable of loops, snap-rolls, spins, hammerheads and the like. No wonder then, that the desirability of spin training persisted on into the 1950s.

In addition, the concept of flight training was much more "open" in those days, with little or no supervision by instructors after solo. Since the light no-electrical trainer would be used primarily for 70-mph cruising in a 200-mile radius of home, as soon as the student mastered enough of flying to take it around by himself he had just about seen it all. With the admonition not carry any passengers, he was free to "build time" pretty much as he chose toward the 40 hours needed to take a private checkride. Thus, spin training was considered necessary as part of pre-solo instruction, in order to prevent the untimely loss of an unsupervised student during this time-building period. Also, a spin demonstration was part of the private checkride.

There came the day every student expected and dreaded, when his instructor came out of the line shack carrying two parachutes and announced that this was the day he was to learn about spins. Cramped into a Cub with the bulk of an unfamiliar chute, he climbed the airplane laboriously to an extra couple of thousand feet of altitude, where the instructor kicked the bird over into a "tailspin." Then, after counting a turn or two, recovery would be made by jabbing opposite rudder and forward stick, and the student was free to try it himself, if his lunch survived the first go-round. Being familiar with Cub-style stalls and their vigorous recovery technique, most students quickly learned to enter and recover from spins, and initial spin training was not as formidable a task as it might seem today.

In the evolution of flight training, practical instruction has taken the place of teaching simple control of the airplane to the end that today's students are expected to learn extensive cross-country navigation procedures using radio aids, as well as the rudiments of communication with various ATC agencies. Basic instrument proficiency must be developed, and specialized operations beyond normal flying have to be covered. There is little or no "time building" any more, just a jam-packed program without any let-up which most students are lucky to complete in 50 hours. After solo, the student has little more freedom than before, having only the right to be dispatched by a CFI to practice specific operations on his own.

To the credit of the designers of both pilots and airplane, accidental spins don't happen very often, though they re still enough of a problem to be bothersome. Aircraft are now certificated under specified limitations, which more often than not include "All acrobatics, including spins, prohibited." Such utility category aircraft that are approved for spins are designed with just enough control travel to permit an adept pilot to do the maneuver, not enough to penetrate deeper into the stall. In many cases, a blast of throttle is needed at entry to provide enough yaw to initiate the spin.

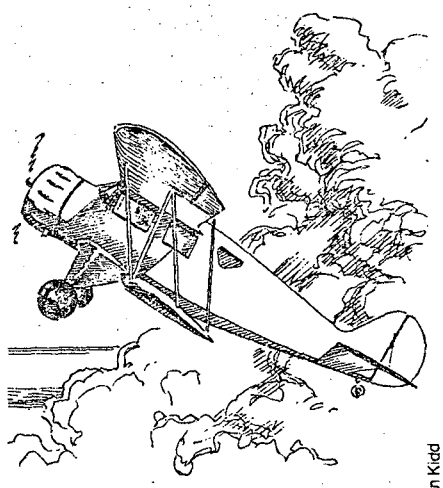


Illustration: Stephen Kidd

Most FBOs do not want their aircraft spun, even when it is within the airplane's limitations, due to the wear and tear on the attitude and directional gyros. These instruments have gimbal stops that are reached in the extreme attitudes of spins, and tumbling of the gyros can result, requiring some minutes of straight and level flight to erect the gyro once more. While today's newly-manufactured gyros withstand much more punishment than the old war-surplus jobs used up through the mid-'60s, they still have limits and can be damaged by prolonged aerobatics. Gyro damage, of course, was seldom a problem in J-3 Cubs.

Spins are not required for any FAA flight training, other than that given for Flight Instructor, Airplane, and even then a logbook entry showing spin instruction given by a CFI may be accepted, without spins being demonstrated on the checkride. Small wonder, then, that many instructors dislike the thought of spins, having only been lightly introduced to them about as much as a pre-solo student of the '40s. With the industry's reluctance to scare any prospective students away, spins are seldom mentioned outside the ground training manual. The FAA has taken a harder line on spins in recent years, encouraging instructors to do as they see fit, as long as the airplane is certificated for spins, though there is little sentiment for actually putting spins back in the curriculum.

Today, we teach how not to spin, by detecting a stall as it develops and recovering into straight and level flight. In a Cessna 150 most students will experience a power-on stall that gets away from them, and the need for rudder use is rather graphically brought home, as the wing goes vertical, the windshield fills with trees, and all the aileron in the world does no good. In 15 years, I have had only one student actually enter a full spin, requiring my assistance to break. When a stall goes awry, I usually just let the student spiral on down, until he answers my pleas for opposite rudder and gets it out by himself. Then we have a little lecture. . . . . .

Often, however, a student expresses an interest in learning about these fearsome maneuvers which he has heard described in story and song, and asks me if I will do him one. Do him one, heck, I'll make him do one! After all, we've been teach-



000077

Document disclosed under the Access to Information Act
Document divulgué en vertu de la Loi sur l'accès à l'information

inc[illegible]pins all along, it only takes a li[illegible]ore effort to perform a spin. In [illegible]cases, a one-turn spin suffices for familiarization, since precision spins of three turns or more are actually an acrobatic maneuver, not a training item.

The spin itself, of course, is simply a stall in which the aircraft is rotating about the vertical, or yaw, axis. It is yaw that initiates the spin, either accidentally, such as with an uncoordinated, ball-out-of-center entry to the stall, or a deliberate tromp on the rudder as the stall breaks. Avoiding spins is easy; at the moment of stall the ailerons should be neutral and the ball nearly centered. This should produce, in modern aircraft, a mild enough stall that a recovery can be made long before any spin-tendency of the aircraft can take hold. Antagonize the airplane with cross-control at the moment of the stall, however, and you'd better look out.

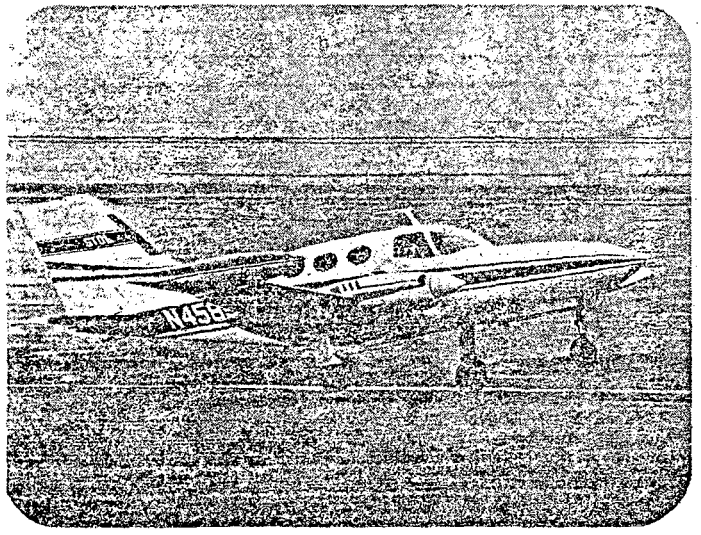
As long as the stall is maintained, the spin will continue, but most spin-approved light airplanes will recover quickly, assuming loading is within proper C.G. limits. Entry is accomplished through a simple power-off stall, applying and holding full rudder in the direction of the desired spin (usually to the left) as the stall breaks. As the pilot holds the yoke back to maintain the stall, the airplane will probably drop one wing over into a steep bank; during this incipient phase, lasting perhaps a half-turn, the airplane is giving you one last chance to back out, as it is actually in a steep descending turn, rather than a true spin. Ailerons should be kept neutral and the nose will continue to drop into what looks to be a vertical nose-down position despite full-up elevator. The rate of turn suddenly accelerates as the nose stabilizes into the spin position, and the windshield fills with whirling section lines.

The Cessna 150 actually spins in a 70° nose-down attitude, although it looks worse, and takes about two seconds per turn, losing 250-300 feet per turn. If you multiply cut that rate of descent, you will see why prompt recovery is vital, and why 3000 feet AGL is little enough as an entry altitude. Count the turns aloud and begin recovery about a quarter-turn before the desired stopping point. Don't be gentle kick and hold full opposite rudder, followed by a vigorous shove forward on the stick. The throttle should have been at idle, if it wasn't pull it back before starting the recovery. Since the recovery attitude will be nearly vertical and the airplane is now free to accelerate, care must be taken to pull out of the dive rapidly but smoothly, to avoid undue build-up of airspeed and stress on the airplane. During the spin the airplane is stalled and there is minimal G-load, but the pull-out from the recovery will probably place three G's on the airplane, even if done smoothly.

Experimentation in modern airplanes will lead you to believe that recovery can be accomplished by merely relaxing rudder pressure and maintaining full back stick to pull out quickly. Don't let this become a habit; there may come the day such technique won't work, and it is better to practice using the standard NACA recovery outlined above rather than short-cutting. Not all airplanes and all loadings react the same. Don't be a test pilot — perform spins only in airplanes specifically designed for them, with loading well within limits. If you experience an increasing G-load while entering or during a spin, roll out and recover immediately, since you are not in a spin, but a diving spiral, which can put much more damaging stress on the airplane if allowed to continue.

By all means, have a knowledgeable instructor go through spins with you, don't attempt them the first time without guidance. Parachutes no longer are required if the spins are done for training purposes. Spins can be just another maneuver when thoroughly understood by the pilot, and having mastered them gives one further confidence of having full control in all situations, however extreme. While no longer a pre-solo hazard to a student's composure, they still are useful tools of learning.

ROBERTSON EQUIPPED 400'S DELIVER



- Shorter Takeoffs & Landings
- Slower Liftoffs & Approaches
- Faster High-Altitude Climb Rates
- Longer Life for Brakes, Wheels, Tires & Structure
- Greater Productivity
- Safety — Safety — Safety

Call toll-free
(800) 426-7692

Robertson Aircraft Corporation
839 W. Perimeter Road, Renton, WA 98055

I currently own
or intend to buy _____
(Make & Model of Aircraft)

Please send me:
☐ Brochure for Robertson 400-Series A/C
☐ Bulletin — "How To Save Time & Money With Robertson"

Name _____
Street _____
City _____ State _____ Zip _____
Phone (Home) _____ (Office) _____

"THE EXTRA MARGIN OF SAFETY"
ROBERTSON AIRCRAFT CORPORATION
Headquarters: Renton Municipal Airport, Renton, WA 98055
(206) 228-5000 Cable: RSTOL
Dedicated to the betterment of general aviation.

J.H. MCPHERSON
S.A. MUSSO
A.J. MCDONELL
R.A. PHILLIPS
~~J.P. ANDONEY~~
J.D. BURTON
R.D. GOODBRAND
C.M. BATCHELOR
B. ASTON

Document disclosed under the *Access to Information Act*
Document divulgué en vertu de la *Loi sur l'accès à l'information*

COPA

"FLIGHT SAFETY IS REALLY A STATE OF MIND"

# FLIGHT SAFETY BULLETIN

P.O. BOX 734, STATION B, OTTAWA, CANADA K1P 5S4
THIS LITERATURE MADE POSSIBLE BY VOLUNTARY CONTRIBUTIONS TO THE COPA FLIGHT SAFETY FUND

December 1976 No. 107

## TIPS ON THE USE OF AILERONS AND RUDDER

Recent stall/spin accidents indicate improper use of rudders. Through co-ordinated use of rudder and ailerons, involvement in this type of accident can be greatly diminished.

The slip stream helps the rudder maintain its effectiveness even at slower speeds when much of the effectiveness of the ailerons has been lost. The rudder, therefore, is the tool for coordinated control as the aircraft approaches, enters, and recovers from a stall. In the "olden days", students were taught from the beginning that approaches to and recoveries from stalls were done with the rudder only, while keeping the ailerons in neutral position. This changed more than a decade ago when the FAA flight test guide started allowing the use of ailerons in these situations. This came about because modern aircraft generally have less elevator travel and do not stall as completely. Also, well designed ailerons are still effective at lower speeds. It was never intended, however, to omit using the rudder in stalls and recoveries therefrom.

To have the proper insight for flight control, pilots need to understand lift and drag properties of ailerons. When ailerons are streamlined (neutral), both wings generally display the same characteristics (Figure A).

Figure A

Rolling the aircraft, however, to the left for example, the left aileron comes up and the right one goes down. (Figure B)

Figure B

Attempting to raise a wing by applying down aileron creates more lift on that wing, by increasing the camber (curvature) of the wing. The increase in camber also increases the drag on the wing with the down aileron. If this increase in drag is not corrected by aileron design or proper application of rudder, the aircraft will yaw toward the wing with the down aileron (adverse yaw). This yawing action will cause a decrease in the speed of the wing in relation to the other wing. When operating near stall speeds, this yawing action, with the difference in speed of the two wings, can result in an earlier stall on the wing with the down aileron. This early stall on one wing will greatly increase the probability of a spin.

The above is not difficult to demonstrate. We can, on most single-engine, propeller-driven aircraft, easily maintain directional control in a straight-ahead, power stall with the rudder alone. On the other hand, if you put your feet on the floor and attempt to use only ailerons to maintain heading and/or the wings level through the same stall, you will have a much less responsive aircraft and, at least some of them, will spin toward the lower aileron as the stall occurs. This proves that below certain speeds ailerons become ineffective. A demonstration like the above should convince most pilots that proper use of rudder would help prevent stall/spin accidents. Rudders and ailerons should be used together for coordinated flight, and while modern aircraft do respond to ailerons alone, omitting the rudder can spell disaster at slow speeds. The often forgotten training maneuver of delayed stall recovery, using rudder alone to maintain heading and level wings as the nose of the aircraft passes through the horizon, was an excellent one. It is no longer used since it is not a required flight maneuver, but it is a good demonstration and confidence building maneuver.

A pilot who flies through a stall or slow flight regime without using rudder at all, fighting for control, slamming the ailerons from stop to stop, is not in full control of the aircraft. Unfortunately, this is seen with increasing frequency. As pilots, we should make an effort to be on the lookout for this mistake and start using the rudder anytime the ailerons are being deflected. Ailerons and rudder work together for co-ordinated flight, and the habit must be built with conscious effort if we are to remain masters of our aircraft throughout the speed envelope.

"KNOW YOUR AILERONS BUT DON'T FORGET THE RUDDER!"

### SAFETY MEANS FLYING HIGH

Pilots pay high insurance premiums because the odds are not good enough, yet so many fly low where the odds are poorest. From a VFR general aviation viewpoint the factors listed below are affected by altitude.

1. Traffic (collision exposure) is less at higher altitudes.
2. Visibility for "see and be seen" concept improves with altitude, notably so around 8,500 feet.
3. Air contaminants (salt air, auto pollution, factory smoke, etc.) corrode aircraft, affect engine and instrument performance and personal well being. The first 1,500 feet should be avoided.
4. The higher you are, the smoother the air; resulting in more accurate instrument and navigation flying, less airframe stress and better pilot performance.
5. Communication range improves with altitude. Try calling your FBO on 123.0 a hundred out, once at 1,000 feet and again at 10,000 feet. The number of people who will hear you on 121.5 is square when you double your altitude.
6. Noise imposed on the people lessens with altitude, especially the first several thousand feet. Above 7,000 feet the public won't know you are up there.
7. Breathing air does not become a factor until above 6,000 feet and shorter flights with healthy people can safely be made at 10,000.

*Flying is for those who are willing to be just a little more careful*

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

TZ1 — SEPT. 5/76 19:002

40 Ø 15+ 17/05 320/20+26

30.02 cu 3

MEMO

VAR - 8° W

N 51 00

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

| | | | |
|---|---|---|---|
| A/C | 1458 | — | = 15132.0 |
| OIL 3 gal. | 27 | −28 | = −756.0 |
| FUEL 16 gal. | 115.2 | 11 | = 1267.2 |
| PILOT | 183 | 71.6 | = 13102.8 |
| PASS | 141 | 19 | = 2679 |
| BRIEF CASE | 10 | −12.6 | = −126.0 |
| PORT. RADIO | 10 | 70 | = 700.0 |
| TOOL KIT | 10 | −12.6 | = −126.0 |
| | 1954.2 | | 31872.8 |

C of G = +16.30

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

5 *

YORK UNIVER

HEEL & FINCH

- EXCALIBER - NEWSPAPER

BILL WILLSON

CENTRAL SQUARE

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

Bill Wilson

C.A.T.C.A - ONE

CANADIAN AIR TRAFFIC CONTROL

ASS

25, STONE; CRT

WESTON ONT

M3N - 1R1

PH 638-3963

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

D513

MAG SWITCHES — BOTH ON.
TRIM — MIN RANGE
SEAT BELT — NO FAILURE.
~~[illegible]~~ SHOULDER HARNESS ?? — FAILURE
CONTROL STICK — JAMMED FORWARD
& TO THE RIGHT.
ALT — 30.04

AIRSPEED INDICATOR — 0
BANK & TURN
OIL PRESS — 0
RPM — 2475
COMPASS

DH-83C
SER# FM 28

PASS SEAT BELT — UNDONE NO FAILURE
PILOT SEAT BELT — UNDONE — NO FAILURE

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

- ST JOSEPH -

JOHN MILLER.
WARRAIN OPPS.

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

CF- DSB

~~1442 - 72~~ - 4 SENT. :30 PRACTICE

1442 - 72 5/SENT :30

360-

Document disclosed under the Access to Information Act -
Document divulgué en vertu de la Loi sur l'accès à l'informatio

## PRE-FLIGHT (COMMENCE AT PORT SIDE OF COCKPIT)

BRAKES - SET
MAGS - OFF
FUEL - OFF
ELEV. TRIM - FULL AFT
FIRE EXT. - SECURE
FORWARD CABIN - SECURITY CHECK + SHIP'S PAPERS
VENTURI
PORT MAINPLANES
PORT AILERON
PORT UNDERCARRIAGE
AIRSPEED INDICATOR
ENGINE - OIL QUANTITY + CAP SECURE (LOCK PIN FORWARD)
- COWLINGS
- OIL LEAKS
- PROPELLOR
- EXHAUST
- OIL FILTER TURNED ONE REV. (FIRST FLIGHT OF DAY)
PROP. AREA - CLEAR
PROP - FULL THROUGH 4 BLADES (FIRST FLIGHT OF DAY)
FUEL - QUANTITY AND CAP SECURE, VENT CLEAR
STARBOARD UNDERCARRIAGE
STARBOARD MAIN PLANES
PITOT HEAD
STARBOARD AILERON
STARBOARD SIDE - CONTROL WIRES AND FUSELAGE UNDERSIDE
VHF ANTENNA
ELT ANTENNA
TAIL UNIT - CONTROL SURFACES
- POSITION OF ELEV. TRIM
- TAIL WHEEL
PORT SIDE - CONTROL WIRES AND FUSELAGE UNDERSIDE

## BEFORE START

FUEL COCK - ON
MIXTURE - RICH
THROTTLE - FULL + FREE MOVEMENT, FRICTION - SET FOR START
ALTIMETER - SET TO FIELD ELEVATION
CARB HEAT - ON
RADIO - SECURE
ELEV. TRIM - FULL MOVEMENT + SET TO NORMAL
CONTROLS - FULL + PROPER MOVEMENT
HARNESS - SET

## STARTING

PRIME - WITH TICKLER
MAGS - ON (ONLY STARBOARD MAG IF HAND SWINGING)
ELECTRIC STARTER - ON UNTIL FIRING
HAND SWINGING - LEFT HAND TRACTOR
OIL PRESSURE - MINIMUM 30 PSI WITHIN 30 SECS.
NORMAL 40-45 PSI

ENGINE MISS-START - MAGS OFF
THROTTLE FULL OPEN
PULL PROP THROUGH BACKWARDS 6-8 BLADES

## AFTER START

CARB HEAT - COLD
RPM - 800-1000 WARMUP
- 1000-1200 NORMAL
OIL - TEMP. + PRESSURE
RADIO - ON
ALTIMETER - SET
GROUND EQUIP. - ALL CLEAR

## TAXIING

BRAKES
NEEDLE + BALL

## RUN UP

MAGS - CHECK FOR LIVE MAG
RPM - 1600 (HOLD CONTROL COLUMN BACK)
MAG CHECK - MAX DROP 100 RPM
OIL PRESSURE - 30-60 PSI
THROTTLE CLOSED - CHECK SLOW RUNNING
NORMAL IDLE - 1200 RPM

## BEFORE TAKEOFF

NOTE: NATURAL SWING OF THE AIRCRAFT IS TO THE RIGHT

TRIM
THROTTLE - FRICTION SET
MIXTURE - RICH
FUEL - ON + SUFFICIENT
OIL - PRESSURE + TEMPERATURE
HARNESS - SECURE
CANOPY - CLOSED / OPEN

## BEFORE LANDING

MIXTURE - RICH
CARB HEAT - OFF NORMALLY
FUEL - CONTENTS
HARNESS - SECURE
TRIM - SET FOR LANDING
THROTTLE - FRICTION SET

## SHUTDOWN

BRAKES - SET
RPM - 800 FOR AT LEAST ONE MINUTE FOR COOLING
MAGS - CHECK FOR LIVE MAG
MAGS - OFF
THROTTLE - OPEN SLOWLY TO FULL THROTTLE, THEN THROTTLE CLOSED
FUEL - OFF
RADIO - OFF
CHOCKS - IN PLACE
CONTROLS - LOCK WITH HARNESS IF REQUIRED

# WARDAIR "FOX MOTH" CHECKLIST

COMPILED AND APPROVED
17 JULY 76

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

CF - DJB

all wing fittings OK
all strut fittings OK
all cables checked for continuity

Canopy & windscreen OK

fuselage buckled up at nose
buckled down aft of

gravity fuel line separated where
gone on impact, athermo-fuel
lines intact to carb

all linkages hooked up except
carb heat disconnected at valve
(cable?)

pilots seat buckled forward
& twisted. seat belt OK.

key may slot gone on crankshaft
indication of power at impact.

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

September 21, 1976

# C-FDJB WEIGHT AND BALANCE CALCULATIONS FOR C.N.E. AIR SHOW FLIGHT 5 SEPTEMBER. 1976

## Bases

1. Weight and Balance Report of July 6, 1976.

2. Information from Garth M. Martin obtained by telephone September 17, 1976 as to configuration, fuel, cargo, passenger, etc.

## Calculations

| | | Weight (lb.) | Arm (in.) | Moment (in.-lb.) |
|---|---|---|---|---|
| 1. | Aircraft empty weight including: | 1458 | 10.38 | 15134 |
| | hammock seat<br>pilot's cushion<br>glove compartment<br>complete upholstery<br>metal propeller<br>canopy top<br>fire extinguisher<br>starter installation<br>ballast | | | |
| 2. | Portable radio | 10 | 70 | 700 |
| 3. | Pilot | 170 | 71.6 | 12172 |
| 4. | Fuel main tank (estimated 16 gal.) | 120 | 11 | 1320 |
| 5. | Oil (estimated 3 gal.) | 25 | -28 | -700 |
| 6. | One passenger aft | 170 | 19 | 3230 |
| 7. | Brief case forward | 10 | -12.6 | -126 |
| 8. | Tool kit forward | 10 | -12.6 | -126 |
| | TOTALS | 1973 | | 31604 |

Centre of gravity is 16.0 inches aft of datum.

If fuel at 4. above were reduced to 10 gallons, c. of g. would be 16.1 inches aft of datum.

Operational c. of g. limits are:

| | | |
|---|---|---|
| Forward | 12."0 | aft of datum |
| Aft | 17."75 | aft of datum |

A. W. Breck

A. W. Breck

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

September 21, 1976

s.19(1)

# FACT SHEET

## GARTH M. MARTIN

| | |
|---|---|
| YEAR EMPLOYED: | [redacted] |
| POSITION: | Pilot - Boeing 747 Captain |
| EMPLOYER: | Wardair Canada (1975) Ltd.<br>6299 Airport Road,<br>Mississauga, Ontario |
| LICENCE: | [redacted] |
| FLYING HOURS: | [redacted] |
| AGE: | [redacted] |

Document disclosed under the Access to Information Act - Document divulgué en vertu de la Loi sur l'accès à l'information

# Successful Search Finds Another Fox Moth to Carry Ward's Colors

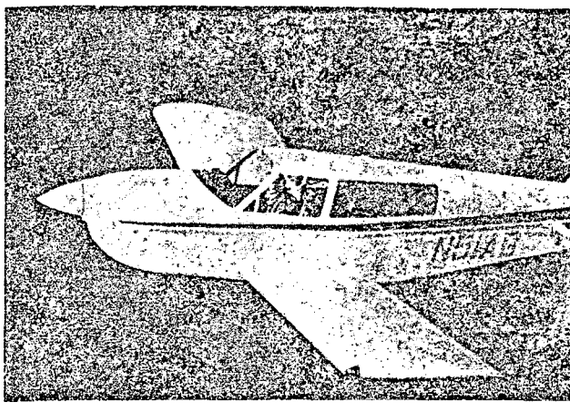
MISSISSAUGA, ONT. — A replacement has been found for the Wardair Fox Moth — CF-DJB — that crashed during the Canadian International Air Show at Toronto early in September.

Wardair 747 Captain Garth Martin of Mississauga, who was flying the Fox Moth when it crashed, located the replacement aircraft at an aircraft restoration firm in Newburyport, Mass., after a wide ranging search that began shortly after he was released from hospital following treatment for the relatively minor injuries he suffered in the crash.

George Benedik, an engineer who was riding with Martin and is now recovering from serious injuries suffered when the aircraft came down into Lake Ontario at the CNE waterfront, is one of three men who will rebuild the replacement Fox Moth, which arrived in Canada as a basket case, though complete in all essential parts. Working with Mr. Benedik will be Andy Obergfell and Dave Cameron.

The new Wardair Fox Moth is Serial No. 7, built in 1946 and one of 53 produced by de Havilland Canada as a stop-gap bushplane to meet the immediate postwar requirements of Canadian bush operators for new equipment. Max Ward, founder and now president of world ranging Wardair Canada Ltd. began his commercial aviation career with a single Fox Moth.

In addition to the 53 produced postwar by de Havilland Canada, the parent company in England produced 98 Fox Moths before WW II.



Anderson-Greenwood Aries T-250 will be produced Alexandria, Minn. facility and marketed under Bella

## Toronto Harbour Policeman Honored for Rescue of Fox Moth Crash Survivor

TORONTO — The Toronto Harbour Commissioners' Award of Merit has been presented to a Toronto Harbour policeman — Robert Riekstins — who risked his life to rescue seriously injured George Benedik, trapped in the cabin of the Wardair Fox Moth which crashed into Lake Ontario during the Canadian International Air Show, Sept. 5.

The medal, presented during a recent meeting of the Board of Harbour Commissioners, bears the inscription: "Leading Hand Robert Riekstins for heroism and dedication to duty."

Riekstins, 27, who first joined the harbour police as a summer lifeguard in 1965, was a member of the police patrol boat teams keeping the harbour free of traffic during the air show. His was the first boat at the scene of the crash, and when pilot Garth Martin, who had managed to climb atop the floating fuselage, told him there was a man trapped in the submerged plane, Riekstins took off his boots and coat and dove into the water.

Riekstins rescued Benedik on his third dive. "I don't know how long the whole operation took," he said. "I had lost all track of time because my only concern was for the man trapped in the plane. I was just happy to get him out alive."

**Robert Riekstins receives award from Commissioner Karl Jaffray.**

The award to Robert Riekstins marked only the second time the THC Award of Merit medal has been presented. It was struck in 1973 to honor those individuals whose outstanding feats of heroism or dedicated service on the Toronto waterfront merit special consideration.

### Airtex Distributor

FORT ERIE, ONT. — Falls Aviation Ltd. has been appointed exclusive Canadian representative for Airtex Products, Fallsington, Pa., manufacturer of aircraft interiors for the general aviation replacement market. Falls Aviation advises that the Airtex line also includes Ceconite and cotton re-cover envelopes, aircraft fabrics, tapes and Randolph finishes.

## *Ailing Bellanca Gets $250,000 Injection from Anderson*

ALEXANDRIA, MINN. — Bellanca Aircraft Corporation's considerable success in the lightplane market with its popular Champion and Viking lines has not often in recent years been reflected by a healthy balance sheet. The company's continuing financial problems have engendered repeated power struggles at the boardroom level.

Latest development is that management of the Bellanca's Alexandria manufacturing facilities is being taken over through Mar. 31, 1977, by Anderson-Greenwood Aviation Corp., a company whose name is hardly an aviation household word but which nevertheless has aviation associations dating back to 1947.

Anderson-Greenwood Aviation, a recently activated wholly owned subsidiary of Anderson, Greenwood and Co., Houston, Texas, has, simultaneously with the execution of the new management agreement, advanced approximately $250,000 to Bellanca to cover various operating costs. Announcement of the agreement said that additional advances under the agreement were subject to certain conditions which it was expected would be met by Bellanca "in the near future."

The management agreement follws closely an announcement of an agreement in principle whereby Bellanca will manufacture and market the Aries T-250, a high performance general aviation aircraft designed and developed by Anderson, Greenwood and Co. Implementation of the agreement is subject to the execution and delivery of definitive agreement as well as certain other conditions including the successful raising of outside financing amounting to approximately $3 million. Manufacture of the Aries T-250, if agreement is reached, would not start until early next year.

Anderson, Greenwood & Co. was formed in 1947 and later in the same year introduced the Anderson Greenwood 14, a two place midwing cantilever pusher monoplane. The all-metal lightplane had a steerable tricycle gear and two vertical fins and rudders mounted on twin booms. Only a few of the attra
Since that time,
maintained unbr
branches of th
through the desig
related equipmer
contracts with the

## BREEZY

• From Page Two

the sunlit puffs of vapour, was a different reality to that of the world below, and with it a solitude beyond description. In this solitude, Claude and I shared a unique communion. For a brief few moments he and I and our craft were one, bonded together in a purpose, which if accomplished successfully, would allow him a full five seconds of freedom from when he left Breezy until his prachute opened and returned security and safety to him.

Claude freed himself from his straps and knelt forward, one arm around my shoulders, and the other gesticulating wildly in the wind as the Punch and Judy routine began again.

The jump run had begun.

Now it was up to Breezy and me to make and maintain minor course corrections until our companion was gone. Satisfied with our position, Claude patted me and held his thumb up: "I'M GOING TO JUMP NOW!"

"HAVE A GOOD ONE!"

He crouched by the seat, sprang forward, and Breezy bounded upward freed of his weight. He sailed past in front of us, arms and legs spread-eagled. Then as though nature had seen his defiance and had commanded gravity to once more take hold of him, he descended below and to the right. As the seconds stretched on, Claude dwindled in size, until after I was sure some-

# CLASSIFIED

## SERVICES


**INSTRUMENT**
**Repair • Overhaul**
**Exchange**
WRIGHT INSTRUMENTS LIMITED
2762 SLOUGH STREET
MISSISSAUGA, ONT. L4T 1G3
Tel. (416) 677-7151 Telex 06-988506

TITLE SEARCHES
FAA RECORDINGS
Airman Records Information. Quick accurate reports. Competitive rates. Reports wired or phoned, if requested. Airmail confirmation.
AIRCRAFT TITLE CORPORATION
1411 Classen Boulevard
Oklahoma City, Okla. 74106, (405) 685-7960

AEROFLITE SHEET METAL
Stuart Puckering
Box 125, Collingwood, Ont., (705) 445-6050
STRUCTURAL REPAIRS TO ALL TYPES OF AIRCRAFT, FLOATS & SKIS
Specializing in Amphibians
Salvage pick-up anywhere

MAINTENANCE
Inspections — Repairs — C of A's
We're long on experience, but short on overhead. Ask for Peter or Bev.
GARRISON AVIATION LTD.
Midland Airport, Ont. (705) 526-8451


## TRAINING


LAKE AMPHIBIAN
Check-outs
and Rentals
COLLINGWOOD AIR
Box 246, Collingwood, Ont. L9Y 3Z5
(705) 445-1616, -1619

**WHY WASTE TIME**
On Ground Training?
Come and see us.
TIM AND DEBBIE Mc LAUGHLIN
(416) 679-4191

**KINGSTON AIR SERVICES**
Norman Rogers Airport, Kingston, Ontario
(613) 389-9000
CESSNA PILOT CENTRE
Fast efficient training — no waiting — Instructors and aircraft available — Private, Commercial, Instructor, Multi & Instrument — Accommodation on site, $10 per week — Block time rentals.

INTERNATIONAL GROUND SCHOOLS
Leavens Hangar, Toronto Intl. Airport
Commercial, Instrument & Instructor
Ground Briefing
Results guaranteed
For information contact Charles Rampulla at (416) 677-7549 or (416) 279-2254

COMMERCIAL HELICOPTER PILOT TRAINING ON BELL 47 and JET RANGER
Contact Antony Verrico


## SE


AIRCRAI
Wichita-Toronto
$130 — all inclusi
ATPL-Pilot.
Call George (416

AIRC
PILOT WATC
Guaranteed S
KARL H. S
RR 1, Ke
(4

RADIO
Update your avion
prices — call or
tham for down-t
operators welcome
funds handled.
dealer.
LECTRON RA
Waterloo-Wel
Tel:
Approved

WESTC
Comp
All F
Oshawa
Oshawa
Phon

TI
for
D
Kingsto

T

H
PILO

000091

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

[redacted]

HomR - [redacted] / [redacted]

8 mm MOVIE

s.19(1)

CF - DJ13

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

| SEP | | 1976 | | | | SEPT |
|---|---|---|---|---|---|---|
| DIM SUN | LUN MON | MAR TUE | MER WED | JEU THU | VEN FRI | SAM SAT |
| .... | .... | .... | 1 | 2 | 3 | 4 |
| 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| 19 | 20 | 21 | 22 | 23 | 24 | 25 |
| 26 | 27 | 28 | 29 | 30 | .... | .... |
| .... | .... | .... | .... | .... | .... | .... |

| DIM SUN | LUN MON | MAR TUE | MER WED | JEU THU | VEN FRI | SAM SAT |
|---|---|---|---|---|---|---|
| .... | .... | .... | .... | .... | 1 | 2 |
| 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| 17 | 18 | 19 | 20 | 21 | 22 | 23 |
| 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| 31 | .... | .... | .... | .... | .... | .... |

| NOV | 19 | | | | NOV |
|---|---|---|---|---|---|
| DIM SUN | LUN MON | MAR TUE | | VEN FRI | SAM SAT |
| .... | 1 | 2 | 3 | 4 | 5 | 6 |
| 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| 21 | 22 | 23 | 24 | 25 | 26 | 27 |
| 28 | 29 | 30 | .... | .... | .... | .... |
| .... | .... | .... | .... | .... | .... | .... |

# OCT 15 OCT

VENDREDI — **1976** — FRIDAY

8:00
8:30
9:00 Call HEN RIEN — PM
9:30
10:00
10:30
11:00
11:30
12:00
12:30
1:00 ~~AUG~~ —
1:30
2:00 AUG - NOV
2:30
3:00
3:30
4:00
4:30
5:00

6289

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

DEPARTMENT OF TRANSPORT
AIRCRAFT ACCIDENT INVESTIGATION DIVISION

*MINISTÈRE DES TRANSPORTS*
*DIVISION DES ENQUÊTES SUR LES ACCIDENTS*

# DISPOSITION OF AIRCRAFT WRECKAGE

# *ENLÈVEMENT DUNE L'ÉPAVE D'AÉRONEF*

| Accident Report No. — *Rapport d'accident n°* | |
|---|---|
| Job Number (CAIE) — *N° de travail (CAIE)* | |

| Aircraft Make and Model — *Marque et modèle de l'aéronef* | Registration — *Immatriculation* | Serial No. — *N° de série* |
|---|---|---|
| FOX MOTH | CF-DJB | s.19(1) |

| Registered Owner or Representative *Propriétaire enregistré ou représentant* | Address — *Adresse* |
|---|---|
| TO *À* ▶ | NEW HAIRE |

THIS IS NOTIFICATION THAT THE AIRCRAFT WRECKAGE IS DISPOSED OF, AS FOLLOWS- *L'ÉPAVE DE L'AÉRONEF CONCERNÉ FERA L'OBJET DES MESURES PRÉCISÉES CI-APRÈS*

☐ THE AIRCRAFT IN ITS ENTIRETY IS RELEASED TO THE REGISTERED OWNER OR HIS AUTHORIZED REPRESENTATIVE.
*L'AÉRONEF DOIT ÊTRE INTÉGRALEMENT RESTITUÉ À SON PROPRIÉTAIRE ENREGISTRÉ OU À SON REPRÉSENTANT QUALIFIÉ.*

☐ SOME PORTIONS OR COMPONENTS OF THE AIRCRAFT HAVE BEEN RETAINED FOR THE TECHNICAL INVESTIGATION. THESE PORTIONS OR COMPONENTS ARE LISTED BELOW. - *CERTAINS ÉLÉMENTS OU COMPOSANTS DE L'AÉRONEF ONT ÉTÉ RETENUS POUR LES BESOINS DE L'ENQUÊTE TECHNIQUE. CES ÉLÉMENTS OU COMPOSANTS SONT ÉNUMÉRÉS CI-DESSOUS.*

S. Munro
Investigator-in-charge — *Enquêteur responsable*

▶ YOUR ATTENTION IS DRAWN TO THE AIRCRAFT ACCIDENT INVESTIGATION PROVISIONS OF THE AIR REGULATIONS — *VOIR DISPOSITIONS DU RÈGLEMENT DE L'AIR SUR LES ENQUÊTES D'ACCIDENT D'AVIATION* ◀

| Part Number *N° de pièce* | Serial Number *N° de série* | Description | Since Overhaul *Depuis revision* | Since New *Depuis neuf* |
|---|---|---|---|---|
| 8 | mo. | MOVIE OF CRASH. | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| RETURNED | — | OCT. 28/76. — | K. Hare | |

AFTER THE TECHNICAL INVESTIGATION THE ITEMS LISTED ABOVE WILL EITHER BE RETURNED OR SCRAPPED
*APRÈS L'ENQUÊTE TECHNIQUE LES ÉLÉMENTS ÉNUMÉRÉS CI-DESSUS SERONT RESTITUÉS OU MIS AU REBUT*

IF APPLICABLE PLEASE 'X' YOUR DISPOSAL INSTRUCTIONS ON THE BLUE COPY AND MAIL THIS COPY TO:
*VEUILLEZ S'IL Y A LIEU FAIRE CONNAÎTRE VOS INSTRUCTIONS CONCERNANT LES MESURES DONT L'AÉRONEF DOIT FAIRE L'OBJET EN BIFFANT LA CASE CORRESPONDANTE SUR L'EXEMPLAIRE BLEU ET QUI SERA ADRESSÉ À:*

☒ RETURN
*RESTITUTION*

☐ SCRAP
*REBUT*

Owner or Representative — *Propriétaire ou représentant*

SEPT. 20/76.
Date

▶ IF "RETURN" GIVE SHIPPING ADDRESS
*EN CAS DE RESTITUTION INDIQUER L'ADRESSE DU DESTINATAIRE* ◀

AS ABOVE.
OR
CALL -



23-0025 (8-73)

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

001654

RECEIVED
OCT 19 1976
AIRCRAFT ACCIDENT
INVESTIGATION
ONTARIO REGION

TO:

Transport Canada.
Aircraft Accident Investigation.
7TH Floor,
Toronto-Dominion Center
Toronto 111, Ontario.

60102
FDJB

Dear Mr Musson.

Regarding the Photo's of the For Moth at the Canadian International Air Show (C.N.E.).

5-11x12 AT 4:75 each $23.75
3- 5x7 AT 2.00 each $6.00
TOTAL 8 prints to the amount of $29.75.

Yes the $29.75 did come out of my poket.

| COST / RESP. | ACTIVITY |
|---|---|
| 412 104 | 0000 |
| WARRANT | ENCUMBRANCE |
| 0000 | 4154 |
| LINE OBJECT | ORDER |
| 4808 | A-7633-TZ |

I CERTIFY THAT THE TOTAL AMOUNT SPECIFIED IS A PROPER CHARGE TO MY CENTRE. 19/10/76

APPROVED COST / RESP. MGR.

YOURS TRULY

WILLIAM (BILL) WILSON.

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

60102

To:

Transport Canada

Aircraft Accident Investigation

7Th Floor

Toronto-Dominion Center

Toronto 111, Ontario.

From:

William Wilson

Editor C.A.T.C.A.-ONE

25, Strong Crt.

Downsview. Ontario.

M3N-1P1

29/Sept/1976

Dear Mr Musson.

This is for the Photo's of the Fox Moth in the Canadian International Air Show ( C.N.E. ).

5 - 11x12 at 4:75 each - 23:75

3 - 5x7 at 2:00 each - 6:00

6 print's to the amount of 29:75.

Sincerely Yours
C.A.T.C.A.-ONE

Wm ( Bill) Wilson
EDITOR

We discussed cost prior to you supplying these and you stated there would not be any. We don't want you to be out-of-pocket. Does the above represent your true cost?

Please advise.

S. Musson.

S. A. Musson

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

**EDDIE BLACK'S LIMITED** HEAD OFFICE: 10 DYAS ROAD, DON MILLS, ONT.

# BLACK'S CAMERAS

PRINT CLEARLY

NAME: Transport Canada

NO. STREET: P.O. Box M.T.D Centre

POST OFFICE: Toronto, Ont.

DATE: Oct. 14 76

| | | |
|---|---|---|
| 3 | Photofinishing | 12.50 |
| | | 12.50 |
| | | 12.50 |

REMARKS

| | |
|---|---|
| SUB TOTAL | 37.50 |
| TAX | ~~0~~ |
| TOTAL | 37.50 |

PAYMENT RECEIVED: CASH / CHEQUE / CHARGEX — CHARGEX NUMBER

LESS PAYMENT REC'D: ~~0~~

☐ C.O.D. ☑ CHARGE — THIS IS YOUR ONLY INVOICE

BALANCE: 37.50

DELIVERY: take

CUSTOMER SIGNATURE: S. Munn.

SOLD BY: CONNIE

STORE: 1223 021

269066

RETAIN THIS SALES SLIP – IT IS YOUR ONLY RECORD OF PURCHASE AND MUST BE PRESENTED SHOULD WARRANTY SERVICE BE REQUIRED. EXCHANGE OR REFUND MAY BE MADE ONLY WITHIN FIFTEEN DAYS.

REDI-SET BUSINESS FORMS

Copy novice

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

# Paterson, Lane and MacDougall

## Barristers & Solicitors

Box 411
Commerce Court North
Toronto, Ontario M5L 1G3

416-360-8414
Telex: 06-23163

---

Eric M. Lane

000098

---

Document disclosed under the Access to Information Act
Document divulgué en vertu de la Loi sur l'accès à l'information

# Hugh Whittington Intercom

## 747 to Moth

FLYING A BOEING 747 across countries and oceans is commonplace; so is a pleasant crosscountry flight by lightplane. Hardly worth a yawn. But flying a tired and out-of-rig de Havilland Fox Moth from Edmonton to Toronto, burning — or throwing — far more oil than gasoline, with true air speeds creeping up on 85 mph and bucking abnormal easterly winds all the way, is something else. *That* is an adventure. And, as Capt. Garth Martin, a Wardair Canada Ltd. 747 pilot succinctly put it, "That trip turned me into a bush pilot in five days."

Now, 747 captains do not, under normal circumstances, concern themselves with such mundane things as changing spark plugs, bending trim tabs, losing propeller spinners in flight, or topping off the tanks, oil and avgas. Nor is their only means of navigation a well-creased VFR map, their only link with the ground a portable Genave Alpha 100 communications transceiver. So in some quarters it will be said that Capt. Martin has joined the *real* world of flying, where the ingenuity of the pilot is often solely responsible for getting the damn airplane off the ground.

So, gentlemen and ladies, welcome Capt. Martin to your group, for yea and verily he has passed your test. With honors.

Max Ward, one of Canada's few honest-to-goodness heroes, first set up shop as Polaris Charter Co. at Yellowknife in 1946, and the company's sole asset was a de Havilland Fox Moth, purchased from the late Phil Garratt for $2,000 down, $716 a month. Twenty-seven years later, when Ward travelled to Seattle to collect the keys for his first Boeing 747 — C-FDJC, the "Phil Garratt" — a Fox Moth was there, too, sitting proudly beside the aeronautical giant. Max had bought the Moth from Jack Edwards, of Kenora, Ont. Max said then the Moth would be restored to flying condition at his Edmonton shops. Three years later, it has been and that's the airplane — C-FDJB — that Capt. Martin flew to Toronto in July. It has been donated to the Ontario Aviation Historical Society, which will keep it in flying condition and display it at air shows to keep alive another little segment of Canada's long flying heritage.

When Garth Martin set out from Edmonton, his Fox Moth time totalled about 1.5 hours, most of which were consumed in the circuit. The newly-overhauled Gipsy engine was running rough, the airplane was so badly out of rig that almost full rudder pressure was required to keep it aiming straight and already Martin was beginning to have second thoughts.

Finally, after some more tinkering, the engine began to sound a little healthier, and the airplane began to fly just a little straighter without so much rudder pressure.

"It took eight changes of the trim tab on the way east to get it okay, but now it flies hands off," Martin said.

After take-off from Edmonton, Martin flew the highway south to Calgary, landing there minutes ahead of a Wardair 747 in from London. "I kind of waited for him, and led him into the ramp," Martin laughed.

On the leg from Calgary to Swift Current, he met the headwinds that would plague him the rest of the way.

"Between Edmonton and Calgary, I passed some cars and some passed me," he said. "Enroute to Swift Current, they all passed me."

With Regina 15 minutes behind, the engine began to run rough again. "The right side door was partly open, and I didn't know if the roughness was caused by the engine or the door. So I went back to Regina, landed, got out and closed the door. I fired up — the mags checked okay — and did a circuit. The problem had been the door."

Nearing Virden, Man., the oil pressure began to drop. Martin again checked the mags, and the pressure jumped up again, so he continued.

"Then when I was on approach into Brandon, the oil pressure dropped right off," he said. "Nobody told me that when you put the nose down the oil can't get from the tank so the pressure drops."

At Brandon he discovered that the prop spinner was missing. "We parted company somewhere over the Prairies."

Winnipeg was next, then Thunder Bay, with an overnight stop at Kenora to see Jack Edwards, from whom the Moth had been purchased.

"You meet really nice people with an old airplane," Martin mused. "I only had an Esso credit card and the dealer at Kenora sold Shell. He said he'd bill the company because it would be nice

(Continued on page 58)

**Canadian Aviation**

Published monthly by
MACLEAN-HUNTER LTD.
Publisher
**Charles Turner**
Editor
**Hugh Whittington**
Editorial/Advertising Assistant
**Melanie Wojick**
Contributing Editors
**Neil A. Macdougall**
**John Gellner**
**Capt. J. R. Desmarais**
**Capt. J. D. Gallagher**
Creative Director
**Roger Fountain**
Sales Promotion Manager
**Brian Gordon**
Production Supervisor
**Mary Kelly**
Circulation Manager
**J. C. Henry**

Executive, Editorial
and Circulation Offices 481 University Avenue
Toronto, Ont. M5W 1A7 Telephone (416) 595-1811
**Donald F. Hunter**/Chairman
**Donald G. Campbell**/President
**R. W. Robertson**/Vice-President,
Business Publications Division
**Ben Inwood**/Group Publisher

ADVERTISING HEADQUARTERS
481 University Avenue Toronto, Ont. M5W 1A7
Telephone (416) 595-1811
Charles T. Turner/W. R. Poutney

ADVERTISING SALES OFFICES
**Montreal**
625 President Kennedy Ave. (514) 845-5141
Anna Trolio
**Edmonton**
Professional Building 10830 Jasper Ave.
Room 902 (403) 422-8668 Glyn Murphy
**Vancouver**
#890, 777 Hornby St. (604) 683-8254 T. H. Wylie
**Decatur, Ga. 30032**
Media Representatives, Inc.,
4319 Covington Highway, Suite 309D
(404) 284-7072-73
**London W1X 2AE, Eng.**
30 Old Burlington St. 437-0644 Julian Primett
**Los Angeles, Calif. 90057**
Jobson, Jordan, Harrison and Schulz, Inc.
1901 West 8th St.
**San Francisco, Calif. 94104**
Jobson, Jordan, Harrison and Schulz, Inc.
Suite 712-715, 57 Post St.

**CONTRIBUTIONS**
Material for publication in Canadian Aviation is invited from authors, pilots, instructors, engineers, etc. However, the editors assume no responsibility for return or safety of art-work, photographs, or manuscripts.

Subscription rates: Canada, 1 year $10; 2 years $18; 3 years $22. U.S. and Britain, $12 yearly; elsewhere $25 yearly. Single copy price $1, Directory Issue: $2.50.

Subscription address: Box 9100, Station "A", Toronto, Ont. M5W 1V5.

All rights reserved. The contents of this publication may not be reproduced either in whole or in part without written consent of the editors.

Copyright 1976 Maclean-Hunter Ltd.

Member Canadian Business Press
Member Canadian Circulation Audit Board
Second class mail registration number: 0983
ISSN 0008-2953

**Return postage guaranteed.**
**Post Office returns to this address:**
**Canadian Aviation**
**481 University Ave.**
**Toronto, Ontario M5W 1A7**


000099
SEPT 197_

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

*Capt. Garth Martin and Max Ward at Toronto*

## Hugh Whittington

*(Continued from page 6)*

to get a cheque from Wardair. He said he'd photocopy it and hang the photocopy on the wall."

From Thunder Bay, he had to turn south into the U.S. to get around some weather and later landed at International Falls, Minn. After take-off from there, the engine began to run rough again, developing only 2,000 rpm instead of 2,400. Martin went back to International Falls, ran some checks, took off, had the same problem, and returned again.

A representative of the FBO arrived on the scene, warned Martin that complaints about the low-flying Moth had been received from some of the locals, and offered to help. "I told him the problem, and what he did was to smear wax crayon on each exhaust stack," Martin said. "I fired up, let it run a little while, and shut down. Sure enough, the wax was still on the one stack, so I had a cool cylinder."

Changing the plug didn't help, and that is when one of the "really nice people" one meets with an old airplane came on the scene.

"One of the local old-timers came up to me and said, 'Sounds to me like she's runnin' on three.' I said, 'Yep . . . guess so.' The old-timer took out a plug, looked at the gap and said, 'You got about fifteen thou here; y'need 25 thou.' I said, 'Yep.' The old-timer took out his jacknife and opened the gap a bit. We replaced the plug, started the engine, and away I went.

"That's what I mean when I say I became a bush pilot in five days."

Next layover was at Sault Ste. Marie, Ont., where Martin met Al Coggan, aviation manager and chief pilot for Algoma Steel Corp. "He's the world's greatest Fox Moth bug. He knows more about Fox Moths than de Havilland."

It was from Coggan's wealth of information on Fox Moths that Martin learned more about the airplane he was flying. He learned that DHC had built 53 Fox Moths in the immediate post-war period; one was being rebuilt in the U.S., some were in India and Pakistan, two were in New Zealand and two more were in bits and pieces at Lac du Bonnet, Man.

"Coggan is building a Fox Moth, as a matter of fact," Martin said. "Max, you only just beat Coggan to that Moth you bought."

Next stop was Wiarton, Ont., for fuel. Despite the headwinds, Martin had the timing just right; take-off from Wiarton right after refuelling would put him at Toronto International Airport, where a reception committee was waiting, at 4 p.m. local time.

"But the engine wouldn't start," he said. "We did everything, but it just wouldn't start. Finally, for no reason at all, it started."

At one minute to four, the reception committee standing outside the cavernous Air Canada maintenance hangar at Toronto saw a Fox Moth pass by a few hundred feet off the ground, the pilot waving at the crowd. Five minutes later, the Moth was once again parked beside Wardair 747, C-FDJC, the "Phil Garratt."

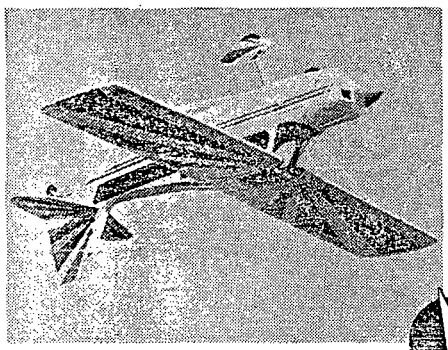
ONE OF THE WELL-WISHERS on hand to greet the arrival of the Fox Moth was Bill McVean. Bill is a pilot, popular Toronto radio personality and air show commentator, who was horribly injured when the replica Nieuport 17 he was flying crashed during an air show at North Bay, Ont.

Bill wasn't expected to recover, let alone fly again, when first taken to the hospital. Later it was said that he would never walk without the aid of a cane.

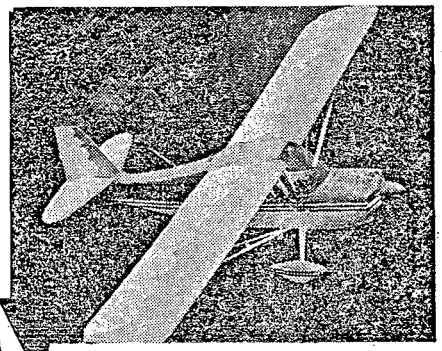
But after more than a year of rehabilitation during which he showed great courage and spirit, McVean not only walks without a cane, but he has flown again.

"I went up in a 172 with an instructor and told him not to sit there and not do anything unless I was going to get us killed," Bill said. "I wanted to find out if I had any hang-ups about flying. There were none."

And like thousands of other Canadian pilots, he was impatiently awaiting for an end to the work-to-rule campaign by the Civil Aviation Inspectors, so he could get his licence back.

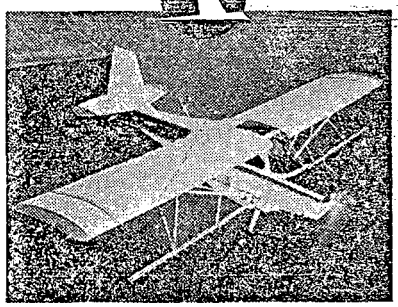



DECATHLON



CITABRIA

BELLANCA - for ABSOLUTE VERSATILITY!



BELLANCA - UNMATCHED in VALUE!

SCOUT

YOUR FINEST, LOWEST COST, MOST VERSATILE SINGLE!

CITABRIA - ideal choice for flight schools primary trainers. Aerobatic. Tough. Stable. Takes skis or floats, too.

DECATHLON - designed for aerobatics. Capable of competition-beating performance. For all-climate, year-round use.

SCOUT - multi-purpose single. Use whole aft section for cargo. Spray. Patroller. Glider Tow Plane. Takes skis or floats, too.

CALL THESE CANADIAN BELLANCA DISTRIBUTORS FOR INFORMATION, PRICES

WESTERN CANADA DISTRIBUTOR:
PEACOCK AIRCRAFT
Lease & Overhaul Ltd.
P.O. Box 9, Site 16
Springbank Airport
R.R. 2, Calgary, Alberta T2P 2G5
Tel.: (403) 288-1333

EASTERN CANADA DISTRIBUTOR:
BUTTONVILLE AIRPORT
Buttonville, P.O., Ontario
Tel.: (416) 297-2900
Telex: 06-219844
LEGGAT AIRCRAFT LIMITED


000100

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

P. O. Box 7
Toronto-Dominion Centre
King Street West
TORONTO, Ontario M5K 1A5

September 15th, 1976

5002-060102

Paterson, Land and MacDougall
P. O. Box 411
Commerce Court North
TORONTO, Ontario M5L 1G3

ATTN: MR. A. WILLIAM BRECK

Dear Sir:

As per a letter received from Wardair Canada Limited, Toronto International Airport dated September 13th, 1976, we are hereby releasing the following to your firm:

Aircraft Journey Log
Aircraft Weight and Balance Report
Technical Logs
Additional Work Sheets

Picked up by Mr. Breck September 15th, 1976.

Yours truly,

S. McPherson

V. H. McPherson
Regional Superintendent
Accident Investigation

SM/rb

Received
Alex. Breck
Sep 15/76.

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

5002 - 86A/82

001580

WARDAIR Canada LTD

P.O. Box 26,
Toronto International Airport,
Toronto AMF, Ontario.
L5P 1A2

September 13, 1976

RECEIVED
SEP 15 1976
AIRCRAFT ACCIDENT
INVESTIGATION
ONTARIO

Ministry of Transport,
Aircraft Accident Investigation Division,
7 King Street West,
Toronto Dominion Centre,
P.O. Box 7,
Toronto, Ontario.

Attention: Mr. Steve Musson - Aircraft Accident Investigation Division

Dear Sirs:

Re: C-FDJB - Fox Moth - owned by Wardair Canada (1975) Ltd.

This letter will serve as your authority to release all documents supplied by our Toronto Maintenance Department and removed from the aircraft wreckage which entailed:

Aircraft Journey Log
Aircraft Weight and Balance Report
Technical Logs
Additional Work Sheets

These documents are to be released to the law firm of:

Paterson, Lane and MacDougall,
P.O. Box 411,
Commerce Court North,
Toronto, Ontario.
M5L 1G3

to the attention of: Mr. A. William Breck

Yours very truly,

WARDAIR CANADA (1975) LTD.,

C. D. McNiven

C. D. McNiven,
Superintendent Base/Line Maintenance,
Eastern Region.

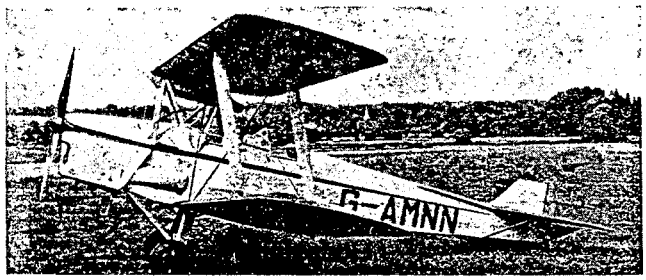
CDM/gh

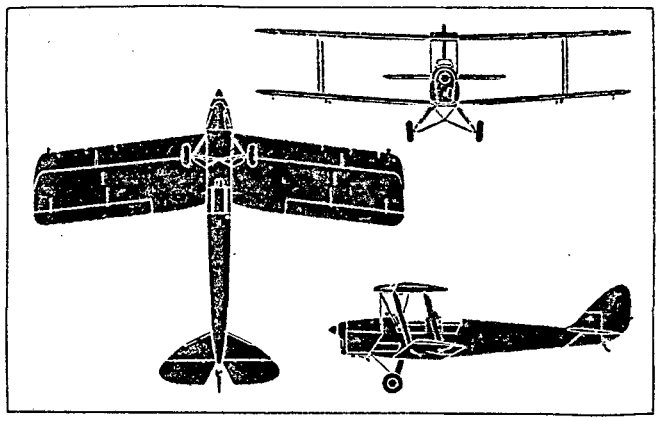
cc. Mr. A. W. Breck
Mr. T. L. Spalding

Document disclosed under the Access to Information Act -
Document divulgué en vertu de la Loi sur l'accès à l'information

## DE HAVILLAND D.H.82 TIGER MOTH

Flown for the first time on October 26, 1931, the Tiger Moth was derived from the ultimate development of the D.H.60 Moth and was known initially as the D.H.60T Tiger Moth. The initial model, the D.H.82, was powered by a 120 h.p. Gipsy III engine, but the D.H.82A which appeared in 1937 received the more powerful Gipsy Major. More than 1,000 Tiger Moths had been delivered before W.W.II, and subsequently 4,005 were built in the U.K. for the R.A.F., 1,747 were built in Canada (the majority of these being D.H.82Cs with enclosed cockpits), 1,085 were built in Australia, and 345 were built in New Zealand. At the time of closing for press a total of 383 Tiger Moths was registered in Europe, 136 of these in the United Kingdom, 312 were registered in Australasia, and sixty-one in Canada. A number have been converted as four-seat cabin biplanes as the Jackaroo (see page 178).

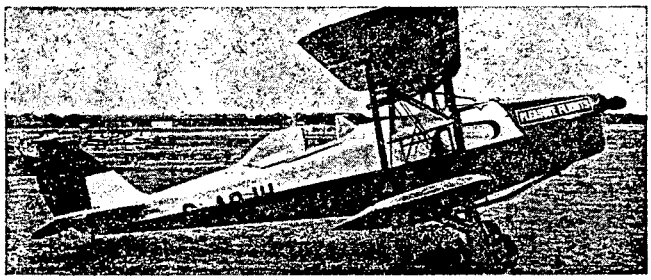


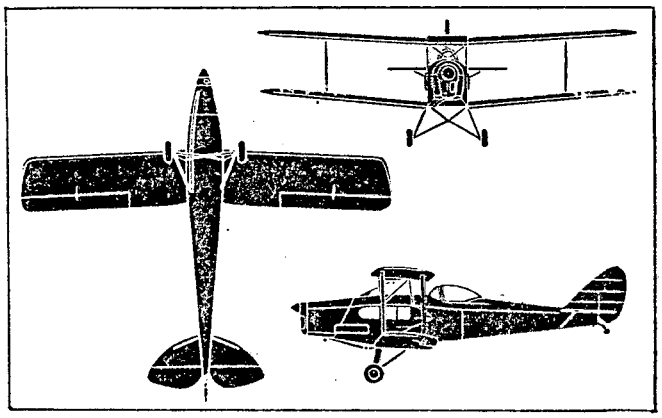



**Power Plant:** *One 130 h.p. de Havilland Gipsy Major I four-cylinder air-cooled engine.* **Performance:** *Max. speed, 109 m.p.h. at sea level; cruising, 90 m.p.h.; initial climb, 673 ft./min.; service ceiling, 13,600 ft.; range, 285 mls.* **Weights:** *Empty, 1,115 lb.; loaded, 1,825 lb.* **Dimensions:** *Span, 29 ft. 4 in.; length, 23 ft. 11 in.; height, 8 ft. 9½ in.; wing area, 239 sq. ft.*

## DE HAVILLAND D.H.83 FOX MOTH

Accommodating four passengers in an enclosed cabin with the pilot in an open cockpit aft, the D.H.83 Fox Moth was flown for the first time on January 29, 1932, and standard Tiger Moth mainplanes, tail unit undercarriage and engine mounting were employed, wooden construction being used throughout. A total of ninety-eight Fox Moths was built prior to the Second World War, and in 1946, a production line was established by de Havilland Aircraft of Canada for a version of the Fox Moth designated D.H.83C. This employed war surplus D.H.82C Tiger Moth components, was powered by a 145 h.p. Gipsy Major IC in place of the 130 h.p. Gipsy Major, carried a maximum of three passengers, had a strengthened cabin area and enlarged door to facilitate freight loading, and introduced a sliding cockpit canopy. A total of fifty-two was built. Two Fox Moths are registered in the U.K., eight in Canada, three in Australia and three in New Zealand.



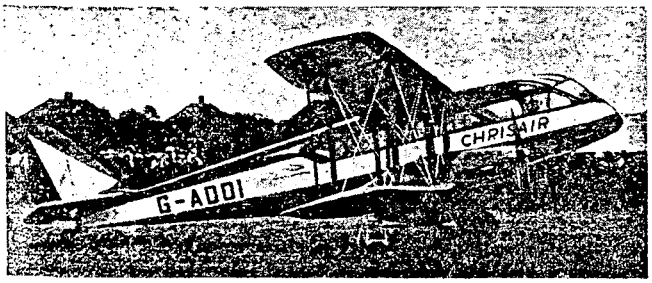


**Power Plant:** *One 130 h.p. de Havilland Gipsy Major four-cylinder air-cooled engine.* **Performance:** *Max. speed, 123 m.p.h.; cruising, 105 m.p.h.; initial climb, 605 ft./min.; service ceiling, 15,000 ft.; range at econ. cruising, 415 mls.* **Weights:** *Empty, 1,100 lb.; loaded, 2,070 lb.* **Dimensions:** *Span, 30 ft. 10¼ in.; length, 25 ft. 9 in.; height, 8 ft. 9½ in.; wing area, 261.5 sq. ft.*

## DE HAVILLAND D.H.84 DRAGON

The D.H.84 Dragon six-passenger two-bay biplane was flown for the first time on November 24, 1932, and production continued until 1937 by which time a total of 115 had been produced. From the sixty-seventh aircraft individually framed windows and faired undercarriage struts were introduced to result in the Dragon II, and eighty-seven aircraft similar to the Dragon I were built by de Havilland in Australia as radio and navigational trainers in 1942-43. Seven Australian-built Dragons are currently registered in Australia and another in New Zealand, and two pre-war Dragons are registered in the United Kingdom, one of these being illustrated below.

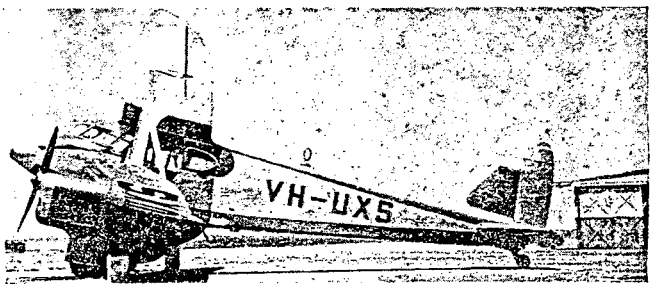
**Power Plants:** *Two 130 h.p. de Havilland Gipsy Major I four-cylinder air-cooled engines.* **Performance:** *Max. speed, 134 m.p.h.; cruising, 114 m.p.h.; initial climb, 565 ft./min.; service ceiling, 14,500 ft.; range, 545 mls.* **Weights:** *Empty, 2,336 lb.; loaded, 4,500 lb.* **Dimensions:** *Span, 47 ft. 4 in.; length, 34 ft. 6 in.; height, 10 ft. 1 in.; wing area, 376 sq. ft.*




## DE HAVILLAND D.H.90 DRAGONFLY

The Dragonfly five-seat light transport biplane flew for the first time on August 12, 1935, and the prototype was followed by sixty-six production examples, the last of which was delivered in 1938. Of these three remain, one being registered in South Africa, one in Australia (illustrated below), and one in the United Kingdom pending sale in the U.S.A. The Dragonfly is of wooden construction throughout with a monocoque fuselage. Heavy duty spars built into the lower wing centre section have permitted the elimination of all struts and wires from the inner wing bay. The undercarriage units are of cantilever type, and dual controls are provided.

**Power Plants:** *Two 130 h.p. de Havilland Gipsy Major I four-cylinder air-cooled engines.* **Performance:** *Max. speed, 144 m.p.h.; cruising, 125 m.p.h.; initial climb, 730 ft./min.; ceiling, 18,100 ft.; range, 900 mls.* **Weights:** *Empty, 2,487 lb.; loaded, 4,000 lb.* **Dimensions:** *Span, 43 ft. 0 in.; length, 31 ft. 8 in.; height, 9 ft. 2 in.; wing area, 256 sq. ft.*





000103

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

# Wardair Canada

**WARDAIR "FOX MOTH" C-FDJB**

## SPECIFICATIONS OF THE FOX MOTH

| | |
|---|---|
| Wing Span | 30 Feet 10 inches |
| Length | 25 Feet 9 inches |
| Height | 8 Feet 5 inches |
| Empty Weight | 1458 Pounds |
| Maximum Weight | 2100 Pounds (Land)<br>2300 Pounds (Sea)<br>2100 Pounds (Ski) |
| Passenger Capacity | 3 Passengers |
| Cargo Capacity | 530 Pounds |
| Engine Power | 140 Horsepower |
| Fuel Capacity | 25 Gallons |
| Maximum Range | 375 Miles |
| Speed | 85 M.P.H. |

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

The DeHavilland Fox Moth first flew in 1932, a short three months after the first flight of the famous "Tiger Moth". DeHavilland Aircraft in England produced the Fox Moth as a derivative of the Tiger Moth to fill the need for a light utility aircraft that could lift three passengers or five to six-hundred pounds of freight from the turf airfields of the time.

During the 1930's, ninety-eight Fox Moths were produced in England. Production costs were kept to a minimum by using the existing and proven components of the Tiger Moth. The wings, tail section, under carriage, engine and propeller were the same and only the wider fuselage of the Fox Moth and its fuel system were new.

After World War II, DeHavilland Aircraft of Canada in Toronto commenced production of the Canadian version of the Fox Moth. At this time there was a requirement for such an aircraft in the expanding bush flying operations of Canada's Northland. The Fox Moth came complete with wheels, skis and floats. DeHavilland was able to utilize many war surplus components from its' Tiger Moth production and in all, manufactured fifty-three Fox Moths in the late 1940's.

In 1946, Max Ward acquired one of these Fox Moths, CF-DJC, and commenced his charter operations at Yellowknife, Northwest Territories. This one-plane, one-man operation subsequently grew to become Canada's largest charter airline, Wardair. The registration letters of this first Fox Moth, now C-FDJB, fly proudly on one of Wardair's Boeing 747's.

Five years ago, Wardair acquired one of the last remaining Fox Moths, C-FDJB, and has completely restored the aircraft to its present flying condition. Of the one-hundred and fifty-one Fox Moths originally produced, only six are known to have survived, two in England, one under restoration in the United States and two in New Zealand. C-FDJB is the sole surviving Fox Moth in Canada.

Wardair is proud to present the Fox Moth as a salute to Canada's flying heritage.

The Fox Moth is being flown by Captain Garth Martin of Toronto, who regularly pilots one of Wardair's Boeing 747's.

Document disclosed under the Access
Document divulgué en vertu de la Loi sur

Metro Police 8:10 9/9/76

s.19(1)

[redacted] - 8 MM ← "all of flt. on film"

1 hr

wrong telephone # could not locate gm. [redacted]

Stu.

11 DIVISON

967-2407

Document disclosed under the *Access to Information Act*
Document divulgué en vertu de la *Loi sur l'accès à l'information*

Original As is

# PUSLINCH LAKE WATER SKI CLUB

## BULLETIN

Puslinch Lake Ski Show which was held on Sat. June 26/76, was rained out and postponed to Sunday June 27th at 2;30 p.m. This turned out to be a super day with great weather and water conditions.

The show was a big success all around with a large crowd that seemed overwhelmed by the feats of our skiers.

A special thank you, to all who worked hard, to make our first Show of the season a success.

A social was held on Sunday June 27th, on the lawn of the McArthur family, after the ski show. An estimated 35 to 40 members attended. Thanks to Irene Dennis and Claudine Hodgson for making this social possible.

The Disabled Clinic was a big success and a note of [illegible] those who spent many hours to make

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

DEPARTMENT OF TRANSPORT
AIR SERVICES BRANCH
OTTAWA, CANADA

A 3 ISSUE 1
DH FOX MOTH 83C
June 21, 1952

# AIRCRAFT TYPE APPROVAL

**Manufacturer:** The de Havilland Aircraft of Canada Limited,
Postal Station "L",
Toronto, Canada.

**Model DH 83C:** Normal Category.

**Engine:** DH Gipsy Major 1C.

**Fuel:** 77 minimum octane aviation gasoline.

**Engine Limits:** Normal B.H.P. 130 at 2100 r.p.m.
Max. B.H.P. 140 at 2400 r.p.m.

**C.G. Range:** 12 inches to 17.75 inches aft of L.E. of lower wing.

**Maximum Weights:**

| | | |
|---|---|---|
| Landplane | - | 2150 lbs. |
| Skiplane | - | 2100 lbs. |
| Seaplane | - | 2300 lbs. with item 3(a) installed. |
| do | - | 2100 lbs. with item 3(b) installed |
| do | - | 2050 lbs. with item 3(c) installed. |

**Number of Seats:** Four, including crew.

**Approval Basis:** A.P. 1208.

**Equipment:**

1. Fixed pitch metal propeller
   Fairey Reid to Drawing No. 94103A/X1.

2. (a) Ski Installation, Consolidated Mining and Smelting Co. Ltd. Drawings 24A/7 and 24A/8.
   Main Ski, Elliott Bros. A-11
   Main Pedestal, DHC W104.

   (b) Ski Installation, DHC Drawing 83006
   Main Ski, Elliott Bros. E10½
   Main Pedestal, DHC W104T.

3. (a) Float Installation, DHC Drawing No. 83005 and Edo Drawing No. 44-S-121A using Edo 44-2425 floats.

   (b) Float Installation, Edo Drawing L-3224 using Edo L floats.

   (c) Float Installation, Fairchild Drawing 0130-D/A using Fairchild P½ floats.

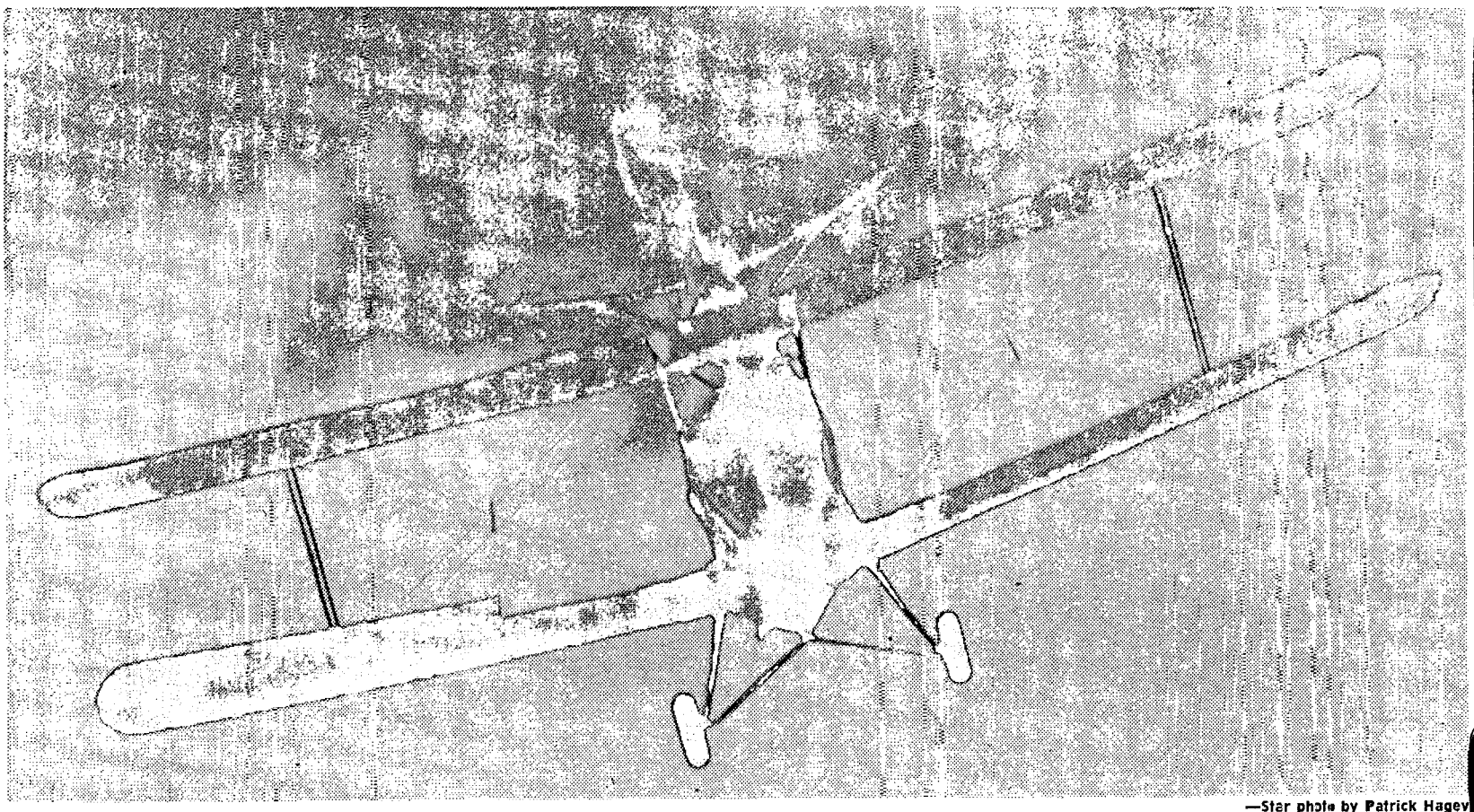
(H.S. Rees),
Chief Aeronautical Engineer,
Department of Transport.

Document disclosed under the Access to Information Act -
Document divulgué en vertu de la Loi sur l'accès à l'information

The Toronto Star

Holiday edition

on.-Fri. 478,383; Sat. 754,360 Monday, September 6, 1976—52 pages Monday-Friday 15c; Saturday 35c; Home delivery $1



—Star photo by Patrick Hagey

JUST BEFORE CRASHING into Lake Ontario at the CNE air show yesterday and narrowly missing hundreds of spectators, Fox Moth biplane banks over waterfront. One of 53 produced in Canada after World War II, it was only one left and had been obtained by Wardair five years ago and restored. This type was among first used when company was established. The crash left it a complete write-off.

# Air crash horrifies thousands at CNE

By DALE BRAZAO
Star staff writer

A 30-year-old Fox Moth biplane with two men aboard crashed into Lake Ontario at the Canadian National Exhibition air show yesterday, narrowly missing hundreds of spectators.

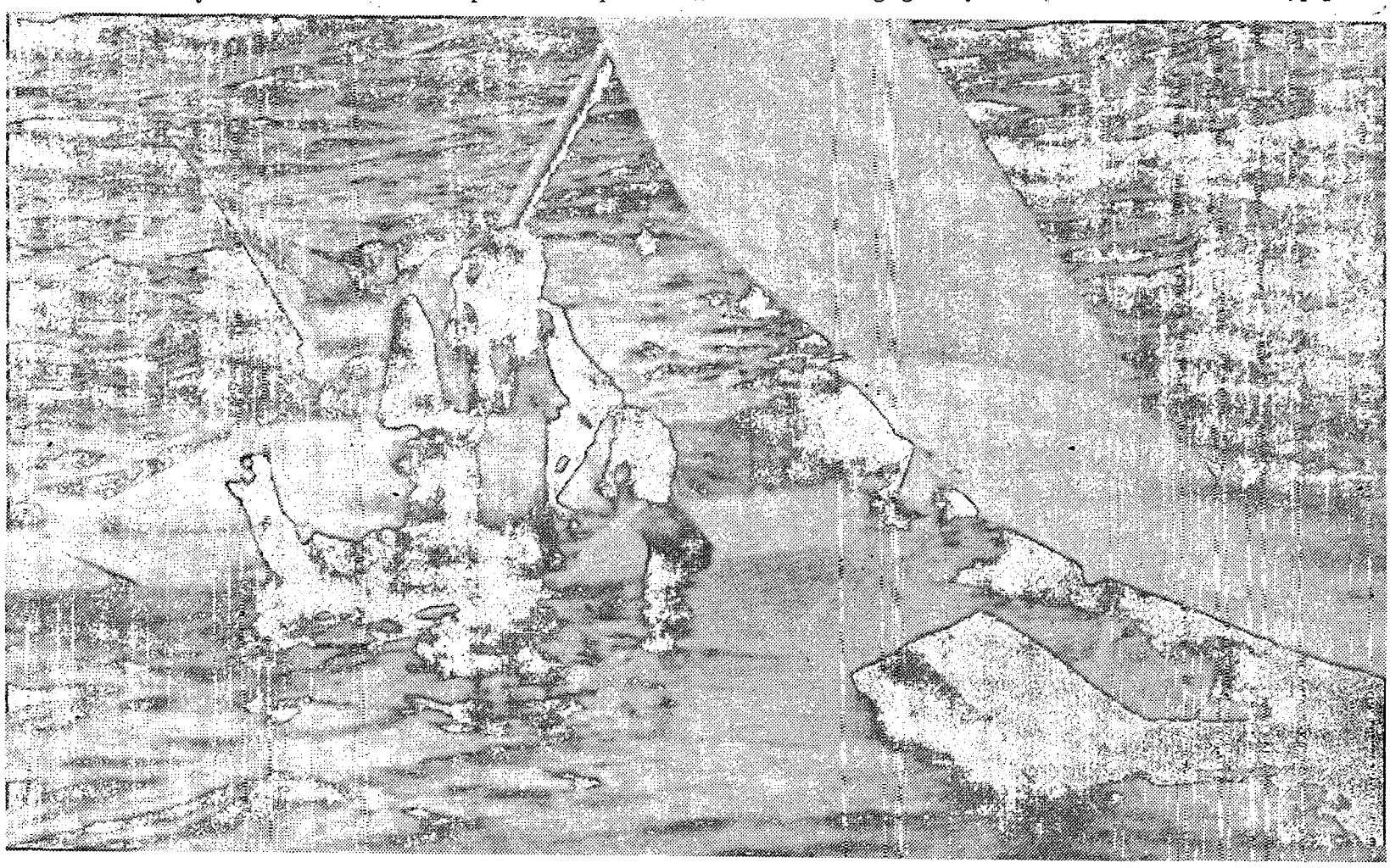
Wardair pilot Garth Martin, 42, of Mississauga, dazed and bleeding about the mouth and face, emerged almost immediately from the rear cockpit. He sat on the fuselage as the nose of the plane sank slowly in 15 feet of water.

His passenger, Wardair mechanic George Benedik, 35, of Berry Rd., was pulled unconscious from the front cockpit.

Rescue personnel massaged Benedik's heart after being unable to perform mouth-to-mouth resuscitation because of the amount of blood coming out of his mouth. "He was hemorrhaging badly inside," an ambulance attendant said.

Benedik was in critical condition at Toronto Western Hospital. Martin, a pilot for 21 years who usually flies one of Wardair's Boe-

See HORRIFIED, page A3



—Star photo by Fred Guthrie

DAZED AND BLEEDING, Wardair pilot Garth Martin (in flying helmet), 42, is helped by unidentified swimmers. His passenger, Wardair mechanic George Benedik, 35, was pulled unconscious moments later from front cockpit. It was suspected engine failure caused accident. Witnesses said plane appeared to go out of contro000109 a climbing left turn and plunged sideways into water near On[illegible]ce.

Document disclosed under the Access to Information Act
Document divulgué en vertu de la Loi sur l'accès à l'information

# Horrified crowds at CNE watch as plane crashes

Continued from page 1

ing 747's was in satisfactory condition at St. Joseph's Hospital with a number of cuts on his face.

The vintage biplane, the only one in Canada, took off from Toronto Island Airport around 2.20 p.m.

It was near centre stage at the CNE waterfront when it appeared to go out of control during a climbing left turn and plunged sideways into the water, 100 feet off the West Island of Ontario Place.

Among the estimated 50,000 people who saw the crash was Star reporter Pat Brennan.

He said it appeared the biplane stalled in midair. "My first reaction was that he was awful low to be pulling a stunt like that," said Brennan adding that a few other planes had stalled their engines on purpose as part of their show.

"A lot of the people around me were convinced it was part of the program. It was so well staged — they thought."

Brennan said a number of people near the crash scene ran back screaming. A few seconds later three men swam out from the West Island at Ontario Place to the plane to help the pilot.

Ross Brewitt of Rexdale said when he saw the plane begin to make the turn, he had "the eerie feeling something was wrong."

"When I first saw this guy, I said to myself, 'That's no trick,'" he said. "It was sickening, because there was nothing we could do except watch."

Toronto Harbor Police credited speedy action by one of their officers in saving the life of the passenger, after the plane crashed and began sinking.

Harbor policeman Robert Rickstins said he was on the scene with the rescue boat within a minute, but it took him another minute to find the passenger.

"The pilot told me he was all right, and said there was someone trapped below," Rickstins said. "I had to dive three times before I was able to undo his seatbelt and drag him out."

A spokesman for the air show could not explain why Benedik, who was not on the flight schedule, was on board, but added that the biplane was a three-seater and said "the pilot probably just took him along for the ride."

A press release put out by the Canadian International Air Show said engine failure was suspected to be the cause of the accident. Martin, the pilot, refused to comment on the accident.

CNE assistant general manager Howard Tate, said the rest of the air show went off as scheduled and said there was no reason to cancel today's show to begin at 1.30 p.m.

The federal Transport Ministry is investigating the accident, Tate said.

The pilot's wife, Shaune Martin, said in an interview she was sure "that whatever happened was mechanical because my husband is a perfectionist.

"He's a man who enjoys his life," she said, "I mean he's there too, so anyone who flies with him is going to be as safe as he is."

She and her two children had been up on the Fox Moth and found it to be fun, Mrs. Martin said.

The Moth was one of 53 produced in Canada after World War II. It was obtained by Wardair five years ago, and after being completely refurbished, the Moth took to the skies in July.

Martin flew the aircraft (top speed 85 m.p.h.) from Edmonton to Toronto in five days. It was to perform for the second time today.

The crash was the fourth since the air shows started in 1954 and the first in 10 years.

The last mishap occurred in 1966 when a U.S. Navy pilot was killed when his jet crashed off the Island Airport.

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

HOLLOWAY
AIR
MARKETING

Weekdays: (519) 824-7000
Evenings & Weekends: (519) 824-8356

RECEIVED
SEP 13 1976
AIRCRAFT ACCIDENT
INVESTIGATION
ONTARIO REGION

001568

19 Clarke Street, East,
Guelph, Ontario N1H 1S6,
September 8, 1976.

Mr. Steve Musson,
Aircraft Accident Investigation Branch,
Ministry of Transport,
7th Floor,
Toronto Dominion Center,
Toronto 111, Ontario.

Dear Steve:

Enclosed please find a sketch of Garth Martin's flight sequence that you requested. I hope it is of some assistance.

If I can be of any further help to you in the future, please do not hesitate to contact me.

Yours sincerely,

Stuart

Stuart W. Holloway.

SWH:wlr

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

HOLLOWAY
AIR
MARKETING

Weekdays: (519) 824-7000
Evenings & Weekends: (519) 824-8356

19 Clarke Street, East,
Guelph, Ontario N1H 1S6,
September 8, 1976.

Mr. Steve Musson,
Aircraft Accident Investigation Branch,
Ministry of Transport,
7th Floor,
Toronto Dominion Center,
Toronto 111, Ontario.

Dear Steve:

Enclosed please find a sketch of Garth Martin's flight sequence that you requested. I hope it is of some assistance.

If I can be of any further help to you in the future, please do not hesitate to contact me.

Yours sincerely,

Stuart W. Holloway.

SWH:wlr

Document disclosed under the Access to Information Act -
Document divulgué en vertu de la Loi sur l'accès à l'information

CANADIAN INTERNATIONAL AIR SHOW

CANADIAN INTERNATIONAL AIR SHOW EXECUTIVE
KEN R. ALLEN
Chairman
GARY W. McMAHON
Deputy Chairman
ARTHUR SCRIVEN
Director, Ground Operations
RUSS BOWDERY
P. R. and Publicity
GERRY R. SPRACKLIN
Director, Air Operations
ARTHUR G. JONES
Director, Airports and Aircraft Facilities
TREVOR MOORES
Official Show Commentator
HOWARD C. TATE
CANADIAN NATIONAL EXHIBITION

001581

RECEIVED
SEP 15 1976
AIRCRAFT ACC...
INVESTIG...
ONTARIO ...

September 14, 1976

Mr. James A. Cochrane
6124 - 149th Avenue
Edmonton, Alberta
T5A 1V8

Dear Mr. Cochrane:

I have forwarded your pictures of the accident involving the Fox Moth along with a copy of your letter to:

Mr. V. McPherson
Regional Superintendent
Aircraft Accident Investigation
Ministry of Transport
P.O. Box 7
Toronto Dominion Centre
Toronto, Ontario
M5K 1A5

We appreciate your consideration in this matter.

Yours very truly,

J. Kirby

J. A. Kirby (Mrs.)
Executive Secretary

cc: Mr. V. McPherson

EXECUTIVE OFFICES, QUEEN ELIZABETH BUILDING, EXHIBITION PLACE, TORONTO, ONT. M6K 3C3 (416) 366-7551
A FEATURE OF THE CANADIAN NATIONAL EXHIBITION
CHARTER MEMBER — INTERNATIONAL COUNCIL OF AIR SHOWS

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

9 Sept 76

Dear Mr. Allan.

I was talking to Russ Bowdry today at the Commonwealth Wartime pilot's get together and told him of these pictures, offering a set for possible use in the investigation, so he suggested your name.

I was covering the event for the armed forces Skyhawks and managed the grab theses. The first one is rather unique and may be of some help.

They are personally owned photographs and I would appreciate it if they were not used commercially without my approval...I am planning on a couple of differnt releases with them....Any further requests can be directed to me in Edmonton, either at the DND Information Office ,Alberta region, CFB Edmonton or at my home (phone 478-1256)

Sincerely,

James A. Cochrane
6124-149 Ave.,
Edmonton, Alberta
T5A 1V8

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

Government of Canada / Gouvernement du Canada

**MEMORANDUM** **NOTE DE SERVICE**

TO / A: O C A I

FROM / DE: Steve Musson

SECURITY-CLASSIFICATION - *DE SÉCURITÉ*:

OUR FILE–N/RÉFÉRENCE: 5002-Ø60102

YOUR FILE–V/RÉFÉRENCE:

DATE: September 13th, 1976

SUBJECT / OBJET: AIRCRAFT ACCIDENT - C.N.E. WATER FRONT

On Sunday September 5th, 1976, at 14:16 EDT, a De Havilland model DH-83C (Fox Moth) aircraft C-FDJB was involved in an accident while being flown at the Canadian International Air Show, C.N.E. Water Front. The aircraft came to rest approximately 50-75 feet off shore.

The undersigned was present and in fact witnessed the accident.

Immediately following the accident, rescue boats and personnel converged on the scene in the water. Air Show officials on foot and with walkie talkie radio's arrived along the shoreline. I immediately identified myself to one of the officials, who inturn communicated with "BOSS CONTROL" by walkie talkie that I was on the scene. "BOSS CONTROL" requested that I proceed to their location, where I spoke with Mr. Ken Allen, Chairman of the air show. He advised that their intentions were to continue with the show as soon as it was safe to do so. I advised him there would be no problem from our Air Investigation procedure stand point, provided the crash scene was secured and personnel kept away from the wreckage.

The shoreline was roped off in the area of the accident scene and security was maintained by the Ontario Provincial Police.

The air show resumed and I remained at "BOSS CONTROL" where I was in full view of the accident scene, and had access to a telephone.

During the remaining portion of the air show, Wardair was contacted and arrangements to remove the wreckage from the water after the show were made.

The aircraft was removed from the water at approximately 22:00 hours that same evening while I was present, and was transported to a hanger at Toronto Island Airport, where it was placed under secure cover and our investigation continued Monday, September 6th, 1976.

From an accident investigation stand point, our system of notification functioned normal.

S. Musson.

Steve Musson
Aircraft Accident Investigator

Document disclosed under the Access to Information Act -
Document divulgué en vertu de la Loi sur l'accès à l'information

MR. NORRE / TORONTO POLICE

[redacted] 863-2256

WATER FRONT BETWEEN YORK & SPADIA

SPADINA

EAST

Document disclosed under the *Access to Information Act*
Document divulgué en vertu de la *Loi sur l'accès à l'information*

DEPARTMENT OF TRANSPORT

# ROUTE SLIP

*MINISTERE DES TRANSPORTS*

# *BORDEREAU D'ACHEMINEMENT*

| TO: *A:* Name - *Nom* | Routing Symbol Symbole d'acheminement | Date |
|---|---|---|
| | | ☐ Comment *Observations* |
| | | ☐ For your information *Pour votre gouverne* |
| | | ☐ Per our conversation *Selon notre conversation* |
| | | ☐ Approval *Approbation* |
| | | ☐ Discuss with me *Discuter avec moi* |
| | | ☐ Take appropriate action *Prendre les mesures appropriées* |

REMARKS:
*REMARQUES:*

| FROM: *DE:* | Routing Symbol *Symbole d'acheminement* |
|---|---|
| | |

02-0091
1-66

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

671 - 1207

[redacted]

671 - 1319

[redacted]

826 - 7939
GARTH MARTIN HM.

[redacted]

6299
AIRPORT RD.

[redacted]

[redacted]

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

| AOÛT 1976 AUG | | | | | | | DIM SUN | LUN MON | MAR TUE | MER WED | JEU THU | VEN FRI | SAM SAT | OCT 1976 OCT | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIM SUN | LUN MON | MAR TUE | MER WED | JEU THU | VEN FRI | SAM SAT | .... | .... | .... | 1 | 2 | 3 | 4 | DIM SUN | LUN MON | MAR TUE | MER WED | JEU THU | VEN FRI | SAM SAT |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | .... | .... | .... | .... | .... | 1 | 2 |
| 8 | 9 | 10 | 11 | 12 | 13 | 14 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 15 | 16 | 17 | 18 | 19 | 20 | 21 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| 22 | 23 | 24 | 25 | 26 | 27 | 28 | 26 | 27 | 28 | 29 | 30 | .... | .... | 17 | 18 | 19 | 20 | 21 | 22 | 23 |
| 29 | 30 | 31 | .... | ... | .... | .... | | | | | | | | 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| .... | .... | .... | .... | .... | .... | .... | | | | | | | | 31 | .... | .... | .... | .... | .... | .... |

# SEP 11-12 SEPT 1976

SAM-DIM

SAT - SUN

8:00
8:30
9:00
9:30
10:00
10:30
11:00
11:30
12:00
12:30
1:00
1:30
2:00
2:30
3:00
3:30
4:00
4:30
5:00

6255

6256

SEP 11 SEPT
255 111

SEP 12 SEPT
256

Document disclosed under the Acc
Document divulgué en vertu de la Loi sur l'

Government of Canada / Gouvernement du Canada

**MEMORANDUM** **NOTE DE SERVICE**

| | |
|---|---|
| TO / A | A S I OTTAWA |
| FROM / DE | O C A I TORONTO |
| SUBJECT / OBJET | ACCIDENT: DE HAVILLAND DH-83C, C-FDJB TORONTO (C.N.E. WATER FRONT) ONTARIO SEPTEMBER 5TH, 1976 |

| | |
|---|---|
| SECURITY-CLASSIFICATION - DE SÉCURITÉ | |
| OUR FILE–N/RÉFÉRENCE | 5002-Ø60102 |
| YOUR FILE–V/RÉFÉRENCE | |
| DATE | September 10th, 1976 |

Enclosed are pages 1 and 2 of Form 23-0059 pertaining to the above mentioned aircraft accident.

V. H. McPherson
Regional Superintendent
Accident Investigation

Enclosure

SAM/rb

Document disclosed under the Access to Information Act -
Document divulgué en vertu de la Loi sur l'accès à l'information

~~HOPO~~ STRONGEN A
FACH

438-7341

BLACK & WHITE

1080 KINGSTON
RD

KINGSTON RD
&
VICTORIA.
NIE / CCR

APT - 810

Document disclosed under the *Access to Information Act* - Renseignements divulgués en vertu de la *Loi sur l'accès à l'information*

| JUIL 1976 JULY | | | | | | |
|---|---|---|---|---|---|---|
| DIM SUN | LUN MON | MAR TUE | MER WED | JEU THU | VEN FRI | SAM SAT |
| .... | .... | .... | .... | 1 | 2 | 3 |
| 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 |
| 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| .... | .... | .... | .... | .... | .... | .... |

| DIM SUN | LUN MON | MAR TUE | MER WED | JEU THU | VEN FRI | SAM SAT |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| 15 | 16 | 17 | 18 | 19 | 20 | 21 |
| 22 | 23 | 24 | 25 | 26 | 27 | 28 |
| 29 | 30 | 31 | .... | .... | .... | .... |

| SEP 1976 SEPT | | | | | | |
|---|---|---|---|---|---|---|
| DIM SUN | LUN MON | | MER WED | JEU THU | VEN FRI | SAM SAT |
| .... | .... | | 1 | 2 | 3 | 4 |
| 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| 19 | 20 | 21 | 22 | 23 | 24 | 25 |
| 26 | 27 | 28 | 29 | 30 | .... | .... |
| .... | .... | .... | .... | .... | .... | .... |

# AOÛT 20 AUG

VENDREDI **1976** FRIDAY

8:00
8:30 DENYING CLAIM
9:00
9:30 - PARKED CAR - KING CITY
10:00
10:30 RIEG
11:00
11:30
12:00 MRS. HEMANN
12:30
1:00 STATE FARM
1:30
2:00 2916 76.01
2:30
3:00
3:30
4:00
4:30
5:00

6233

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

SEPT. 5

14:16 Z

NO ELT SIGNAL
RECEIVED - TZ TWR.

121.5

Original As is

Document disclosed under the *Access to Information Act* - Document divulgué en vertu de la *Loi sur l'accès à l'information*

| AOÛT 1976 AUG | | | | | | |
|---|---|---|---|---|---|---|
| DIM SUN | LUN MON | MAR TUE | MER WED | JEU THU | VEN FRI | SAM SAT |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| 15 | 16 | 17 | 18 | 19 | 20 | 21 |
| 22 | 23 | 24 | 25 | 26 | 27 | 28 |
| 29 | 30 | 31 | .... | .... | .... | .... |
| .... | .... | .... | .... | .... | .... | .... |

| DIM SUN | LUN MON | MAR TUE | MER WED | JEU THU | VEN FRI | SAM SAT |
|---|---|---|---|---|---|---|
| .... | .... | .... | 1 | 2 | 3 | 4 |
| 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| 19 | 20 | 21 | 22 | 23 | 24 | 25 |
| 26 | 27 | 28 | 29 | 30 | .... | .... |

| OCT 1976 OCT | | | | | | |
|---|---|---|---|---|---|---|
| DIM SUN | LUN MON | MAR TUE | [redacted] | JEU THU | VEN FRI | SAM SAT |
| .... | .... | .... | [redacted] | .... | 1 | 2 |
| 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| 17 | 18 | 19 | 20 | 21 | 22 | 23 |
| 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| 31 | .... | .... | .... | .... | .... | .... |

# SEP 7 SEPT 1976

MARDI — TUESDAY

8:00
8:30 SB. Queen dir.
9:00
9:30 IFR - RIDE
10:00 [redacted]
10:30
11:00 PAN a CAMERA.
11:30
12:00
12:30 [redacted]
1:00
1:30
2:00
2:30
3:00
3:30
4:00
4:30
5:00

6251

000124

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

M.R. ALLEN
CHAIRMAN
AIR SHOW

s.19(1)

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

KEN REID

868-2523 OFFICE

[redacted] - HUME.

8 m.
MOVIE

will call when movie is ready.

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

s.19(1)

[redacted] & MR MUSIE

OFF.

will Carl when he elections novie.

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

IAPT. Mr McDONALD

MEZO

Document disclosed under the Access to Information Act - Original Access
Document divulgué en vertu de la Loi sur l'accès à l'information

# 1st show in 10 years man helps rescue pilot

A man visiting the Canadian National Exhibition air show for the first time in 10 years suddenly found himself part of the show's most dramatic moment Sunday — the rescue of two airmen from their Fox Moth biplane which crashed into Lake Ontario before thousands of horrified spectators.

"I had just finished jostling for half an hour for a good place to see the show," Bernie Schaeffer said. "It was the first time I'd been to the airshow in 10 years and I was really looking forward to it.

"Suddenly the plane hit the water and the next minute so did I. I don't even remember running into the lake but suddenly I was swimming towards the sinking plane."

Schaeffer was one of two men who helped Harbor Police rescue pilot Garth Martin, 42, of Mississauga and his passenger, mechanic helped comfort pilot Martin before the Harbor Police arrived.

"He (Martin) was on his knees on the plane," Schaeffer said. "The nose of the aircraft was under water. We kept telling him, 'It's all right, everything's okay' but it took a few minutes before he realized anyone was with him.

"Suddenly he said, 'Where's my partner?' and we freaked out. We didn't realize there was a second man."

Schaeffer said he started pulling debris off the plane and then the police arrived. A Harbor Police diver went under three times before he freed Benedik from his seatbelt and brought him to safety.

Benedik was loaded unconscious on to a waiting boat, but, Schaeffer said: "He sort of came to before we touched land — sort of groaning."

Schaeffer, 27, said his rescue attempt wasn't heroism, "just an instant response. I didn't even realize what I was doing until I got wet."

A federal transport department spokesman said an investigation of the crash is under way. Investigators have examined the plane, which showed no evidence of structural defects, but were still waiting to talk with the pilot.

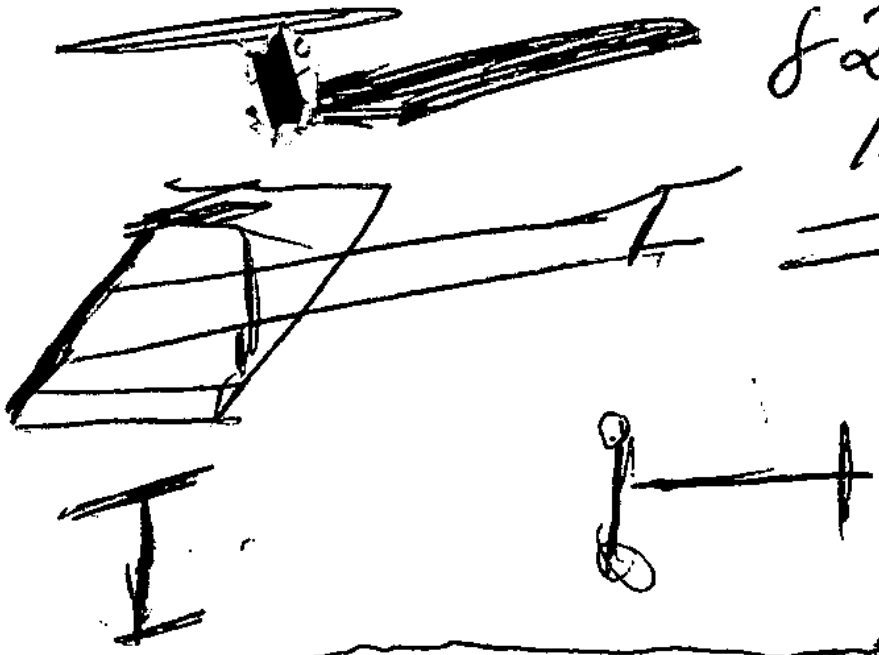
Yesterday, Martin was having trouble talking through a swollen mouth but, otherwise, he said, he feels okay.

Document disclosed under the *Access to Information Act*
Document divulgué en vertu de la *Loi sur l'accès à l'information*

ERIK

CLARK

826-1420
BUSS



SOUTH EAST
MAIN CRANSTAND
100°
flipped the line
1/2 turn

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

| JUIL 1976 JULY | | | | | | |
|---|---|---|---|---|---|---|
| DIM SUN | LUN MON | MAR TUE | MER WED | JEU THU | VEN FRI | SAM SAT |
| .... | .... | .... | .... | 1 | 2 | 3 |
| 4 | 5 | [redacted] | 7 | 8 | 9 | 10 |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 |
| 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| .... | .... | .... | .... | .... | .... | .... |

| DIM SUN | LUN MON | MAR TUE | MER WED | JEU THU | VEN FRI | SAM SAT |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| 15 | 16 | 17 | 18 | 19 | 20 | 21 |
| 22 | 23 | 24 | 25 | 26 | 27 | 28 |
| 29 | 30 | 31 | .... | .... | .... | .... |

| SEP 1976 SEPT | | | | | | |
|---|---|---|---|---|---|---|
| DIM SUN | LUN MON | MAR TUE | MER WED | JEU THU | VEN FRI | SAM SAT |
| .... | .... | .... | 1 | 2 | 3 | 4 |
| 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| 19 | 20 | 21 | 22 | 23 | 24 | 25 |
| 26 | 27 | 28 | 29 | 30 | .... | .... |
| .... | .... | .... | .... | .... | .... | .... |

# AOÛT 13 AUG
## 1976

VENDREDI — FRIDAY

8:00
8:30
9:00
9:30
10:00
10:30
11:00

000131

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

s.19(1)

[redacted]

SIDE A after music — . TAPE

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

DR. CARROL — WAD AIR CO. DOCTOR

791 - 2165 OFFICE.

Document disclosed under the Access to Information Act
Document divulgué en vertu de la Loi sur l'accès à l'information

HOLLOWAY
AIR
MARKETING

YE OLDE SCOTT FARM
RR#5 GUELPH
N1H 6J2

Guelph

**STUART W. HOLLOWAY**

**COMMUNICATIONS CONSULTANTS**
**MEDIA PROJECT PLANNERS**
**AIRSHOW SPECIALISTS**

D 59000134 00

H

[519] 824-8356

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

PLAN FOR
SHOW.

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

GERRY R. SPRACKLIN
AIR DIRECTOR

CANADIAN
INTERNATIONAL
AIR SHOW

274-8977

000136

Executive Offices, Queen Elizabeth Building, Exhibi
Toronto, Ontario, Canada M6K 3C3. Telephone (416) 366-7551

Bill Wilson
C.A.T.C.A.-ONE
638-3967

35 MM
STILL PICTURE

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

CHUCK

MOT.

BISS CONDL.

THOMAS

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

US COAST GUARD

s.19(1)

8 MM MOVIE

Document disclosed under the *Access to Information Act* -
Document divulgué sous la Loi sur l'accès à l'information

| AOÛT 1976 AUG | | | | | | |
|---|---|---|---|---|---|---|
| DIM SUN | LUN MON | MAR TUE | MER WED | JEU THU | VEN FRI | SAM SAT |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| 15 | 16 | 17 | 18 | 19 | 20 | 21 |
| 22 | 23 | 24 | 25 | 26 | 27 | 28 |
| 29 | 30 | 31 | .... | ... | .... | .... |
| .... | .... | .... | .... | .... | .... | .... |

| DIM SUN | LUN MON | MAR TUE | MER WED | JEU THU | VEN FRI | SAM SAT |
|---|---|---|---|---|---|---|
| .... | .... | .... | 1 | 2 | 3 | 4 |
| 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| 19 | 20 | 21 | 22 | 23 | 24 | 25 |
| 26 | 27 | 28 | 29 | 30 | .... | .... |

| OCT 1976 OCT | | | | | | |
|---|---|---|---|---|---|---|
| DIM SUN | LUN MON | MAR TUE | MER WED | JEU THU | VEN FRI | SAM SAT |
| .... | .... | .... | .... | .... | 1 | 2 |
| 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| 17 | 18 | 19 | 20 | 21 | 22 | 23 |
| 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| 31 | .... | .... | .... | .... | .... | .... |

# SEP 3 SEPT
## 1976

VENDREDI — FRIDAY

| | |
|---|---|
| 8:00 | |
| 8:30 | BEAVER – AL SCULLY. |
| 9:00 | |
| 9:30 | |
| 10:00 | |
| 10:30 | |
| 11:00 | |
| 11:30 | |
| 12:00 | |
| 12:30 | |
| 1:00 | |
| 1:30 | |
| 2:00 | |
| 2:30 | |
| 3:00 | |
| 3:30 | |
| 4:00 | |
| 4:30 | |
| 5:00 | |

6247

...ess to Inform...
...de la Loi sur l'accès à...

s.19(1)

US COAST GUARD

8 mm FILM

Document disclosed under the Access to Information Act
Document divulgué en vertu de la *Loi sur l'accès à l'information*

[redacted]

Sgt MEPSTER
WINNIPEG

MIKE RALIGA/LEGER
OPS MAN.
671-1207

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

C. D. (DAN) McNIVEN
SUPERINTENDENT
MAINTENANCE
EASTERN REGION

WARDAIR CANADA (1975) LTD.
P.O. BOX 26
TORONTO A.M.F. ONTARIO L4V 1N3
OFFICE PHONE 676-3764
RES. PHONE GEORGETOWN
TELEX 06-968642
SITA - YYZMMWD

000143

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

# SKYCHARTER

TORONTO INTERNATIONAL AIRPORT, P.O. BOX 130, MALTON, ONT.
TELEPHONE (416) 677-6901
AIR-GROUND-RADIO
129.75 MHz

WILLIAM (BILL) TATE

FILE M 000144

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

*Skycharter flying equipment for your safety and comfort our twin engine and Jet aircraft are equipped to airline standards and maintained for all weather operations by government licensed technicians.*

*All charter flight operations are flown — by two professional pilots under Department of Transport Instrument Flight Rules and Controls. Insurance substantially exceeds the Canadian Air Transport Requirements.*

Document disclosed under the Access to Information Act -
Document divulgué en vertu de la Loi sur l'accès à l'information

GEO NEPEAN

633-7310
786-7787

DAN

LIGHT ON CONTROLS

ELEVATOR JAB

+70 EMPTY

TAKEN OUT AT.

DEHAULAN

LEFT DOWNSTAIR
WITHOUT

WED.
WED.
1ST

Document disclosed under the *Access to Information Act* - Document divulgué en vertu de la *Loi sur l'accès à l'information*

| JUIL 1976 JULY | | | | | | |
|---|---|---|---|---|---|---|
| DIM SUN | LUN MON | MAR TUE | MER WED | JEU THU | VEN FRI | SAM SAT |
| .... | .... | .... | .... | 1 | 2 | 3 |
| 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 |
| 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| .... | .... | .... | .... | .... | .... | .... |

| DIM SUN | LUN MON | MAR TUE | MER WED | JEU THU | VEN FRI | SAM SAT |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| 15 | 16 | 17 | 18 | 19 | 20 | 21 |
| 22 | 23 | 24 | 25 | 26 | 27 | 28 |
| 29 | 30 | 31 | .... | .... | .... | .... |

| SEP 1976 SEPT | | | | | | |
|---|---|---|---|---|---|---|
| DIM SUN | LUN MON | MAR TUE | MER WED | JEU THU | VEN FRI | SAM SAT |
| .... | .... | .... | 1 | 2 | 3 | 4 |
| 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| 19 | 20 | 21 | 22 | 23 | 24 | 25 |
| 26 | 27 | 28 | 29 | 30 | .... | .... |
| .... | .... | .... | .... | .... | .... | .... |

# AOÛT 21-22 AUG
## 1976

SAM-DIM

SAT - SUN

8:00
8:30
9:00
9:30
10:00
10:30
11:00
11:30
12:00
12:30
1:00
1:30
2:00
2:30
3:00
3:30
4:00
4:30
5:00

6234

6235

AOÛT 21 AUG
234 132

AOÛT 22 AUG
235

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

s.19(1)

[redacted] U2 -

DOUGLAS

200 FEET

SUPER 8" FILM.

=

REN HAIRE

[redacted]

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

| JUIL 1976 JULY | | | | | | |
|---|---|---|---|---|---|---|
| DIM SUN | LUN MON | MAR TUE | MER WED | JEU THU | VEN FRI | SAM SAT |
| .... | .... | .... | .... | 1 | 2 | 3 |
| 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 |
| 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| .... | .... | .... | .... | .... | .... | .... |

| DIM SUN | LUN MON | MAR TUE | MER WED | JEU THU | VEN FRI | SAM SAT |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| 15 | 16 | 17 | 18 | 19 | 20 | 21 |
| 22 | 23 | 24 | 25 | 26 | 27 | 28 |
| 29 | 30 | 31 | .... | .... | .... | .... |

| SEP 1976 SEPT | | | | | | |
|---|---|---|---|---|---|---|
| DIM SUN | LUN MON | MAR TUE | MER WED | JEU THU | VEN FRI | SAM SAT |
| .... | .... | .... | [redacted] | 2 | 3 | 4 |
| 5 | 6 | 7 | [redacted] | 9 | 10 | 11 |
| 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| 19 | 20 | 21 | 22 | 23 | 24 | 25 |
| 26 | 27 | 28 | 29 | 30 | .... | .... |
| .... | .... | .... | .... | .... | .... | .... |

# AOÛT 14-15 AUG
## 1976

SAM-DIM

SAT - SUN

8:00
8:30
9:00
9:30
10:00
10:30
11:00
11:30
12:00
12:30
1:00
1:30
2:00
2:30
3:00
3:30
4:00
4:30
5:00

6227

6228

AOÛT 14 AUG
227 139

AOÛT 15 AUG
228

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

DEPARTMENT OF TRANSPORT
AIRCRAFT ACCIDENT INVESTIGATION DIVISION

*MINISTÈRE DES TRANSPORTS*
*DIVISION DES ENQUÊTES SUR LES ACCIDENTS*

# DISPOSITION OF AIRCRAFT WRECKAGE

# *ENLÈVEMENT DUNE L'ÉPAVE D'AÉRONEF*

| Accident Report No. – *Rapport d'accident n°* | |
|---|---|
| Job Number (CAIE) – *N° de travail (CAIE)* | |

| Aircraft Make and Model – *Marque et modèle de l'aéronef* | Registration – *Immatriculation* | Serial No. – *N° de série* |
|---|---|---|
| DE HAVILLAND FOX MOTH | CF-DJB | FM 28 |

| Registered Owner or Representative *Propriétaire enregistré ou représentant* | Address – *Adresse* |
|---|---|
| TO À ▶ WARDAIR CANADA LTD | 26TH FLOOR, CN TOWER EDMONTON ALTA. |

THIS IS NOTIFICATION THAT THE AIRCRAFT WRECKAGE IS DISPOSED OF, AS FOLLOWS - *L'ÉPAVE DE L'AÉRONEF CONCERNÉ FERA L'OBJET DES MESURES PRÉCISÉES CI-APRÈS*

☐ THE AIRCRAFT IN ITS ENTIRETY IS RELEASED TO THE REGISTERED OWNER OR HIS AUTHORIZED REPRESENTATIVE.
*L'AÉRONEF DOIT ÊTRE INTÉGRALEMENT RESTITUÉ À SON PROPRIÉTAIRE ENREGISTRÉ OU À SON REPRÉSENTANT QUALIFIÉ.*

☒ SOME PORTIONS OR COMPONENTS OF THE AIRCRAFT HAVE BEEN RETAINED FOR THE TECHNICAL INVESTIGATION. THESE PORTIONS OR COMPONENTS ARE LISTED BELOW. - *CERTAINS ÉLÉMENTS OU COMPOSANTS DE L'AÉRONEF ONT ÉTÉ RETENUS POUR LES BESOINS DE L'ENQUÊTE TECHNIQUE. CES ÉLÉMENTS OU COMPOSANTS SONT ÉNUMÉRÉS CI-DESSOUS.*

S. J. Marner
Investigator-in-charge – *Enquêteur responsable*

▶ YOUR ATTENTION IS DRAWN TO THE AIRCRAFT ACCIDENT INVESTIGATION PROVISIONS OF THE AIR REGULATIONS – *VOIR DISPOSITIONS DU RÈGLEMENT DE L'AIR SUR LES ENQUÊTES D'ACCIDENT D'AVIATION* ◀

| Part Number *N° de pièce* | Serial Number *N° de série* | Description | Since Overhaul *Depuis revision* | Since New *Depuis neuf* |
|---|---|---|---|---|
| — | AIRCRAFT | JOURNEY LOG BOOK C-FDJB | | |
| — | AIRCRAFT | WEIGHT & BALANCE - C-FDJB | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

AFTER THE TECHNICAL INVESTIGATION THE ITEMS LISTED ABOVE WILL EITHER BE RETURNED OR SCRAPPED
*APRÈS L'ENQUÊTE TECHNIQUE LES ÉLÉMENTS ÉNUMÉRÉS CI-DESSUS SERONT RESTITUÉS OU MIS AU REBUT*

IF APPLICABLE PLEASE 'X' YOUR DISPOSAL INSTRUCTIONS ON THE BLUE COPY AND MAIL THIS COPY TO:
*VEUILLEZ S'IL Y A LIEU FAIRE CONNAÎTRE VOS INSTRUCTIONS CONCERNANT LES MESURES DONT L'AÉRONEF DOIT FAIRE L'OBJET EN BIFFANT LA CASE CORRESPONDANTE SUR L'EXEMPLAIRE BLEU ET QUI SERA ADRESSÉ À:*

☒ RETURN
*RESTITUTION*

☐ SCRAP
*REBUT*

C D McLean
Owner or Representative – *Propriétaire ou représentant*

Sept. 6/76
Date

▶ IF "RETURN" GIVE SHIPPING ADDRESS
*EN CAS DE RESTITUTION INDIQUER L'ADRESSE DU DESTINATAIRE* ◀

WARD AIR CANADA LTD
BOX 26
TORONTO ONT.
ATTEN. DAN McNIVEN

000150

23-0025 (8-73)

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

Transport Canada Transports Canada

# MESSAGE

FILE NO. DOSSIER No ▶ 5002-060102 1756-10

DATE September 7, 1976 19

COMPLETE THIS SECTION-REMPLIR CETTE PARTIE

FOR COMMERCIAL MESSAGES CHARGE ONLY | POUR MESSAGES COMMERCIAUX UNIQUEMENT

CHARGE TARIF ▶

WCAI EDMONTON

OCAI 148 PLEASE FORWARD AIRCRAFT AND PILOT FILES: C - FOXTROT

DELTA JULIETT BRAVO AND PILOT FILE GARTH McLEAN MARTIN, XDA-867

FOR ACCIDENT INVESTIGATION PURPOSE ONLY.

OCAI TORONTO

S. Munro

Document disclosed under the Access to Information Act -
Document divulgué en vertu de la Loi sur l'accès à l'information

Transport Canada Transports Canada

# MESSAGE

FILE NO. DOSSIER No ▶ 5002-060102 5008-FDJB 5802-063128

DATE September 7, 1976 19

COMPLETE THIS SECTION-REMPLIR CETTE PARTIE

FOR COMMERCIAL MESSAGES CHARGE ONLY | POUR MESSAGES COMMERCIAUX UNIQUEMENT

CHARGE TARIF ▶

ASI OTTAWA

OCAI 147 RE ACCIDENT FILE 5002-060102 (A) DeHAVILLAND DH-83C (FOX MOTH) C - FOXTROT DELTA JULIETT BRAVO (B) WARDAIR CANADA (C) GARTH McLEAN MARTIN, XDA-867 (D) SEPTEMBER 5, 1976 14:16EDT (E) TORONTO ISLAND AIRPORT / LOCAL (F) WATER FRONT CANADIAN NATIONAL EXHIBITION (LAKE ONTARIO) (G1) NIL / ONE (g2) NIL / ONE (H) WHILE PERFORMING AT THE CANADIAN NATIONAL EXHIBITION AIR SHOW THE AIRCRAFT STRUCK THE WATER IN A STEEP NOSE DOWN RIGHT WING LOW ATTITUDE. MUSSON INVESTIGATING.

OCAI TORONTO

S. Musson.

cc: OCAR OCAE

38-0014
6-73



FILE COPY - DOSSIERS

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

Stacey

person requested direct file C-FDJB, ~~from~~ ~~Edmonton Region~~ and Pilot file for CARTA McLEAN MARTIN [redacted] from Edmonton Region.

s.19(1)

Document disclosed under the *Access to Information Act* - Document divulgué en vertu de la *Loi sur l'accès à l'information*

| JUIL 1976 JULY | | | | | | |
|---|---|---|---|---|---|---|
| DIM SUN | LUN MON | MAR TUE | MER WED | JEU THU | VEN FRI | SAM SAT |
| .... | .... | .... | .... | 1 | 2 | 3 |
| 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 |
| 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| .... | .... | .... | .... | .... | .... | .... |

| DIM SUN | LUN MON | MAR TUE | MER WED | JEU THU | VEN FRI | SAM SAT |
|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| 15 | 16 | 17 | 18 | 19 | 20 | 21 |
| 22 | 23 | 24 | 25 | 26 | 27 | 28 |
| 29 | 30 | 31 | .... | .... | .... | .... |

| SEP 1976 SEPT | | | | | | |
|---|---|---|---|---|---|---|
| DIM SUN | LUN MON | MAR TUE | MER WED | JEU THU | VEN FRI | SAM SAT |
| .... | .... | .... | 1 | 2 | 3 | 4 |
| 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| 19 | 20 | 21 | 22 | 23 | 24 | 25 |
| 26 | 27 | 28 | 29 | 30 | .... | .... |
| .... | .... | .... | .... | .... | .... | .... |

# AOÛT 31 AUG

## 1976

MARDI — TUESDAY

8:00
8:30
9:00
9:30
10:00
10:30
11:00
11:30
12:00
12:30
1:00
1:30
2:00
2:30
3:00
3:30
4:00
4:30
5:00

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

s.19(1)

(a) Type, nationality and registration
DE HAVILLAND DH-83C (FOX MOTH) C-FDJB

(b) Name of owner and operator or hirer
WARDAIR CANADA

(c) Name of pilot in command
GARTH McLEAN MARTIN [redacted]

(d) Date and time of accident (EST)
SEPT 5 1976 14:16 EDT ([redacted])

(e) Point of departure and intended landing
TORONTO ISLAND AIRPORT / LOCAL

(f) Position of aircraft
WATER FRONT ~~CENTRAL CANADA~~ CANADIAN NATIONAL EXHIBITION (LAKE ONTARIO)

(g1) Number of crew killed / seriously injured
NIL / ONE

(g2) Number of passengers killed / seriously injured
NIL / ONE.

(h) Nature of accident and extent of damage

WHILE PERFORMING AT THE C.N.E. AIR SHOW THE AIRCRAFT STRUCK THE WATER IN A STEEP NOSE DOWN RIGHT WING LOW ATTITUDE.

NOTIFICATION: Time AT THE SCENE Date SEPT. 5 1976

| PLACE | METHOD | BY WHOM |
|---|---|---|
| ☐ Home | ☐ Phone | ☐ ATC ..... |
| ☐ Office | ☐ Personal | ☐ Owner/Op. ..... |
| ☐ _____ | ☐ Telegram | ☐ Pilot ..... |
| | ☐ Teletype | ☐ OPP ..... |
| | ☐ _____ | ☐ Police Dept. ..... |
| | | ☐ _____ ..... |

| PERSONNEL NOTIFIED - | | Date | Time |
|---|---|---|---|
| | 1) | | |
| | 2) | | |
| | 3) | | |

PASS.
GEORGE BENEDIK
[redacted]



(14:16 + 10 SEC)

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

*Appendix 1 ICAO Annex 13 Refers*

(a) *Type, model, nationality and registration marks of aircraft*

(b) *Name of owner, operator and hirer*

(c) *Name of pilot in command*

(d) *Date and time (GMT) of the accident*

(e) *Last point of departure and point of intended landing*

(f) *Position of aircraft and latitude and longitude*

(g) *Number of crew and passengers: aboard, killed and seriously injured; other, killed and seriously injured*

(h) *Nature of the accident and the extent of damage*

(i) *Accident will be investigated by MOT Accident Investigation Division* ☐ *Yes* ☐ *No*

(j) *Locale - General:* ☐ *hills* ☐ *rolling* ☐ *flat*
*Specific:* ☐ *aerodrome* ☐ *road* ☐ *clearing* ☐ *lake* ☐ *river* ☐ *bush* ☐ *swamp/muskeg* ☐ *urban area*

(k) *Participation of State of registry* ☐ *necessary* ☐ *unnecessary*

---

*NOTIFICATION: Time* _____ *Date* _____

*PLACE:* ☐ *Home* ☐ *Office* ☐ _____

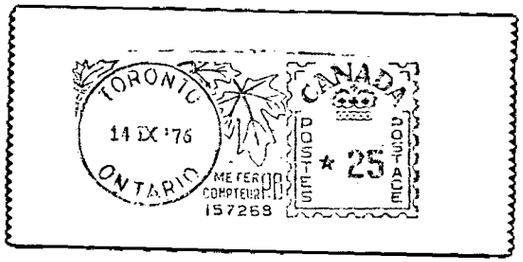
*METHOD:* ☐ *Phone* ☐ *Personal* ☐ *Telegram* ☐ *Teletype* ☐ _____

*BY WHOM:* ☐ *ATC* ..... ☐ *Owner/Op.* ..... ☐ *Pilot* ..... ☐ *OPP* ..... ☐ *Police Dept.* ..... ☐ _____ .....

*PERSONNEL NOTIFIED:*

| | | Date | Time |
|---|---|---|---|
| 1) | | | |
| 2) | | | |
| 3) | | | |

Document disclosed under the Access to Information Act
Document divulgué en vertu de la *Loi sur l'accès à l'information*




**Canadian National Exhibition**

Mr. V. McPherson
Aircraft Accident Investigation
Ministry of Transport
P.O. Box 7
Toronto Dominion Centre
TORONTO, Ontario M5K 1A5

Exhibition Place, Toronto, Canada M6K 3C3

PHOTOS

PLEASE DO NOT BEND

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

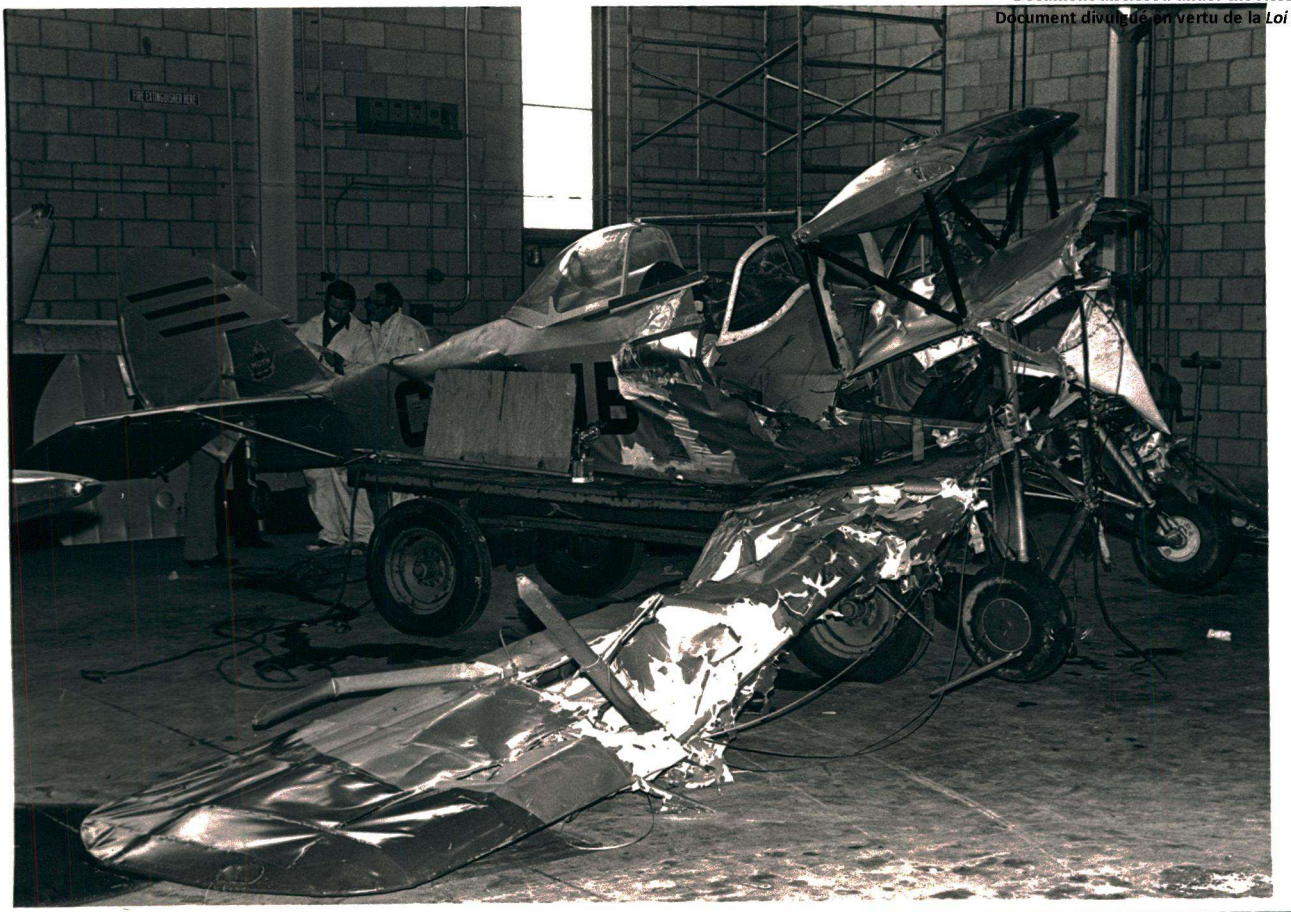
Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

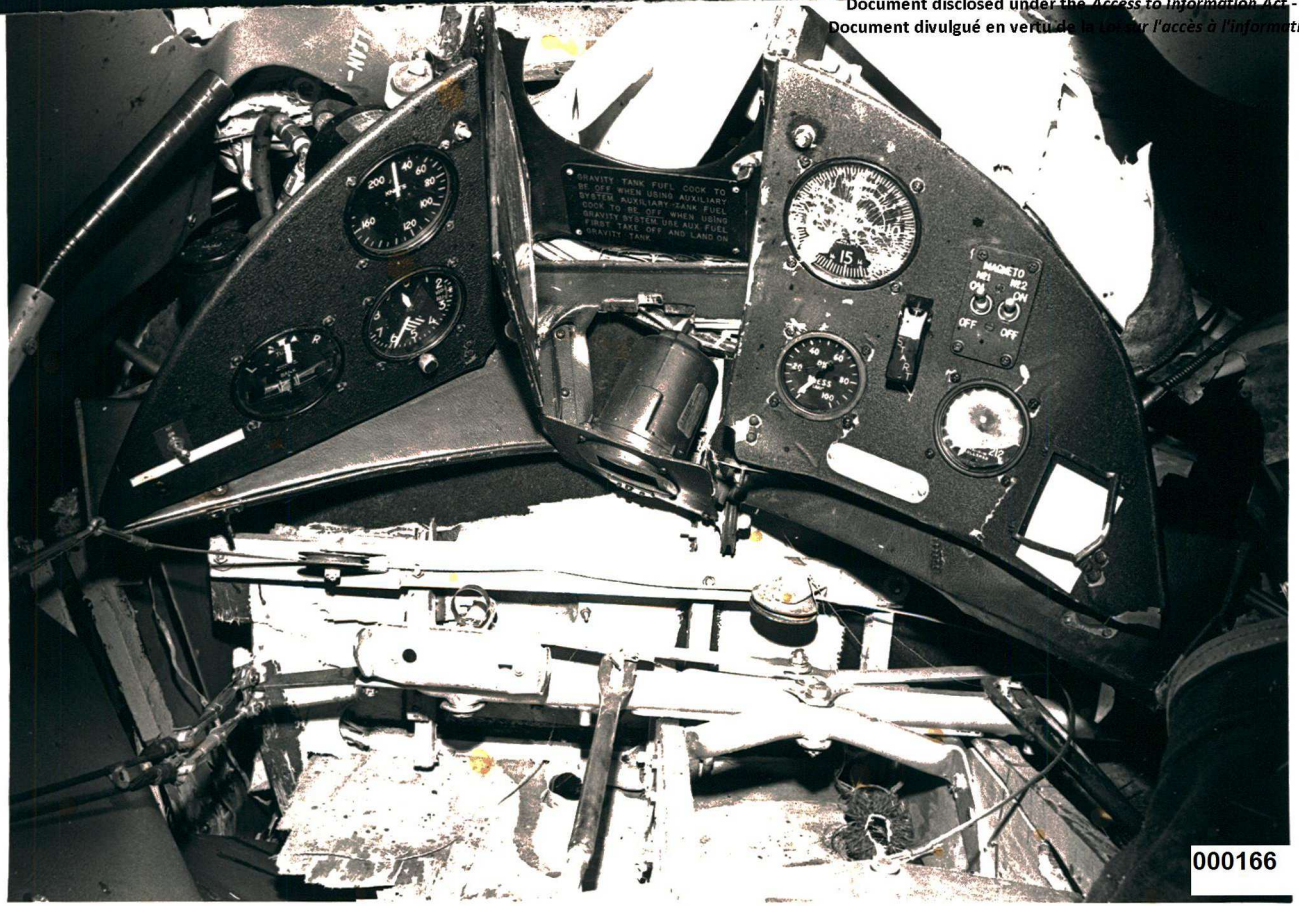
Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*



Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

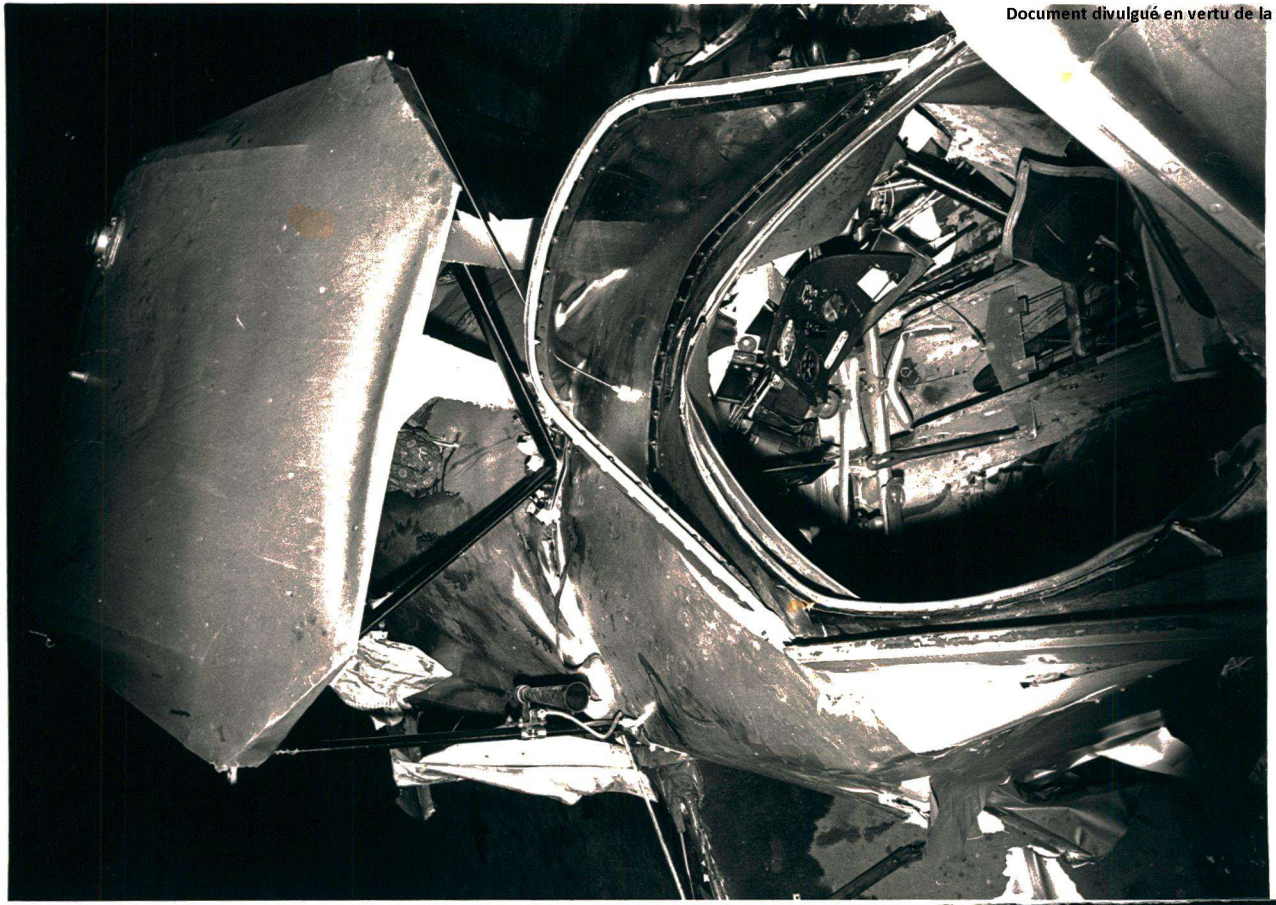
Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*



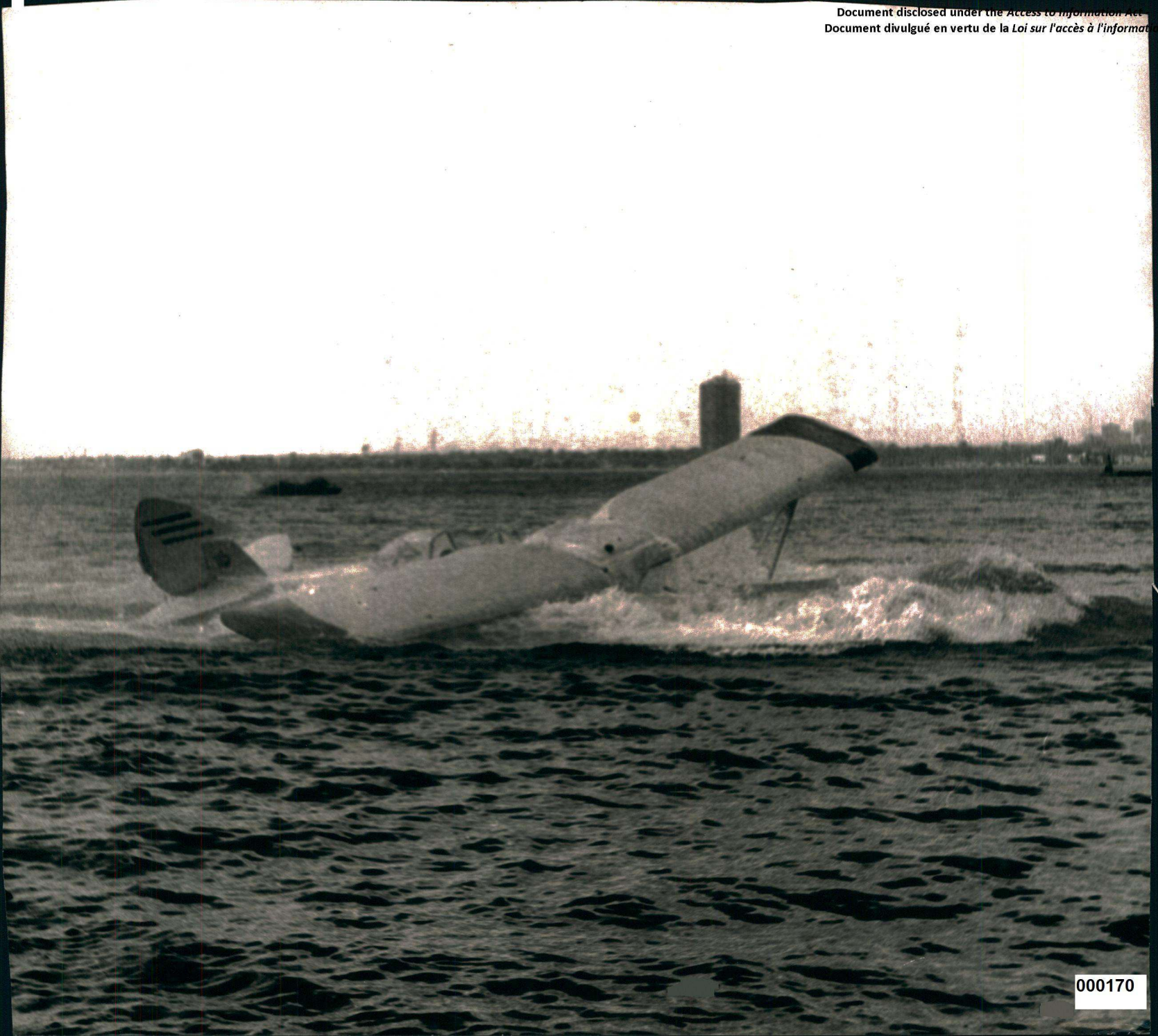
Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*



Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

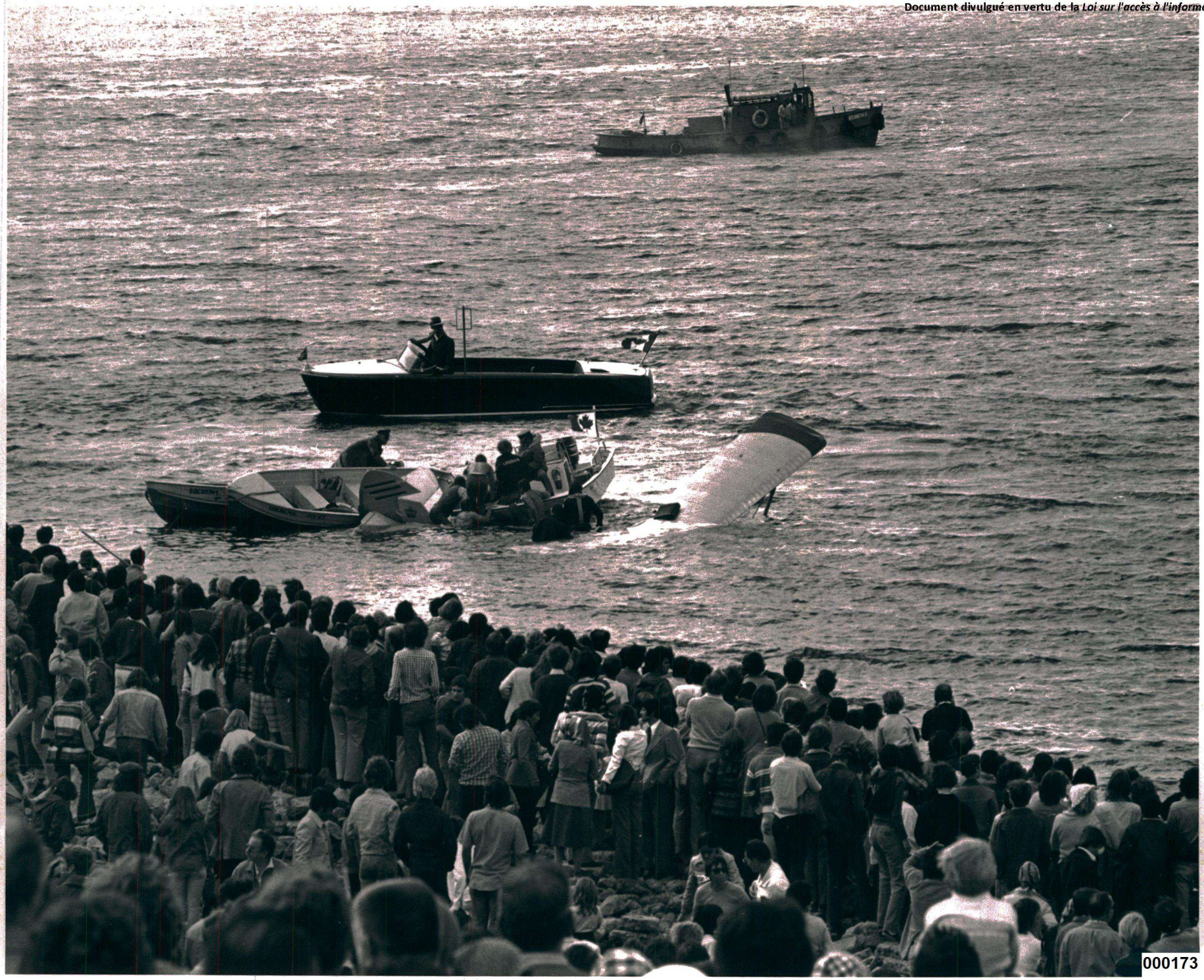
Document disclosed under the *Access to Information Act*
Document divulgué en vertu de la *Loi sur l'accès à l'information*



Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*



Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

Document disclosed under the *Access to Information Act* -
Document divulgué en vertu de la *Loi sur l'accès à l'information*

PHOTOS