MINISTRY OF TRANSPORT — **MINISTÈRE DES TRANSPORTS**

SUBJECT / SUJET: AIRCRAFT ACCIDENT

FROM / DE:

SUB-SUBJECT / SOUS-SUJET: AVIATION SAFETY INVESTIGATIONS

TO / À:

FILE TITLE / TITRE DU DOSSIER: CF-PWA DOUGLAS DC6B JAMES FEWELL
35 MILES SW OF KAMLOOPS, B. C. 16:20 PST AUGUST 2, 1974

02-0004

VOL.

NO. 5002-P40069

DATE ROUTED / DATE DE SORTIE	PURPOSE FOR WHICH USED / RAISON DE L'ENVOI	REFERRED TO / DESTINATAIRE	BF DATE / DATE DE RAPPEL	USER'S INITIALS / INITIALES DE L'UTILISATEUR

02-0001
10-72

PLACE FILE No. STICKER IN THIS BOX
COLLER L'ETIQUETTE PORTANT LE Nº DE DOSSIER 000001

IMPORTANT

INSTRUCTIONS FOR USE OF FILES

A. NOTIFY RECORDS WHEN FILE PASSED TO ANOTHER SECTION— by completing File Pass Slip, Form No. 02-0012 or by other means.

B. THIS COVER MUST NOT BE FOLDED UNDER FILE

C. Column 1. Enter date file routed or re-routed.

2. Show reason for routing I.E. — letter, memorandum, serial number of document requested, B.F., etc.

3. Enter name or office designator of addressee.

4. Enter date that file is to be "Brought Forward". (B.F.'d)

5. Initial when action completed.

D. Letters, memoranda, telegrams, charts, enclosures must not normally be removed from this file. If it is necessary to remove any document the user must:

1. Annotate covering letter or memorandum with the reason for removal and its new location.

2. If no covering letter or if the covering letter is also removed, a memorandum is to be placed on the file giving description of documents removed, reason for removal and new location.

3. Route file to Records for notation of document removal.

IMPORTANT

DIRECTIVES POUR L'EMPLOI DES DOSSIERS

A. INFORMER LA GESTION DES DOCUMENTS LORSQUE LE DOSSIER EST TRANSMIS A UNE AUTRE SECTION en remplissant la formule no 02-0012. Fiche de transmission de dossier ou d'une autre manière.

B. NE PAS REPLIER SOUS LE DOSSIER

C. Colonne 1. Inscrire la date de la sortie du dossier.

2. Justifier la sortie du dossier. Par ex. lettre, mémorandum, numéro de série du document, à rappeler etc.

3. Inscrire le nom ou l'indicatif du bureau du destinataire.

4. Indiquer la date à laquelle le dossier doit être rappelé.

5. Initialer avant de retourner.

D. Habituellement les lettres, memoranda, télégrammes, cartes et pièces jointes ne doivent pas être retirés du dossier. S'il est nécessaire de le faire, l'usager doit:

1. indiquer sur une lettre d'accompagnement ou un mémorandum la raison de la sortie du document et ce qui en est advenu;

2. s'il n'y a pas de lettre d'accompagnement ou si elle aussi a été retirée, joindre au dossier un mémorandum décrivant les documents retirés, justifiant la sortie et indiquant ce qui en est advenu;

3. transmettre le dossier à la Gestion des documents pour en modifier les registres.

CORRESPONDENCE TRANSFER AND CROSS-INDEX — MOUVEMENTS DE LA CORRESPONDANCE ET RÉFÉRENCES CROISÉES

SUBJECT - *SUJET*	FILE NO. - *N^o^ DU DOSSIER*

NEW FILE COVER OPENED BY
LA NOUVELLE COUVERTURE A ÉTÉ COMMENCÉE PAR:

RETENTION PERIOD:
PÉRIODE DE CONSERVATION:

CHECKED BY - *VÉRIFIÉ PAR*

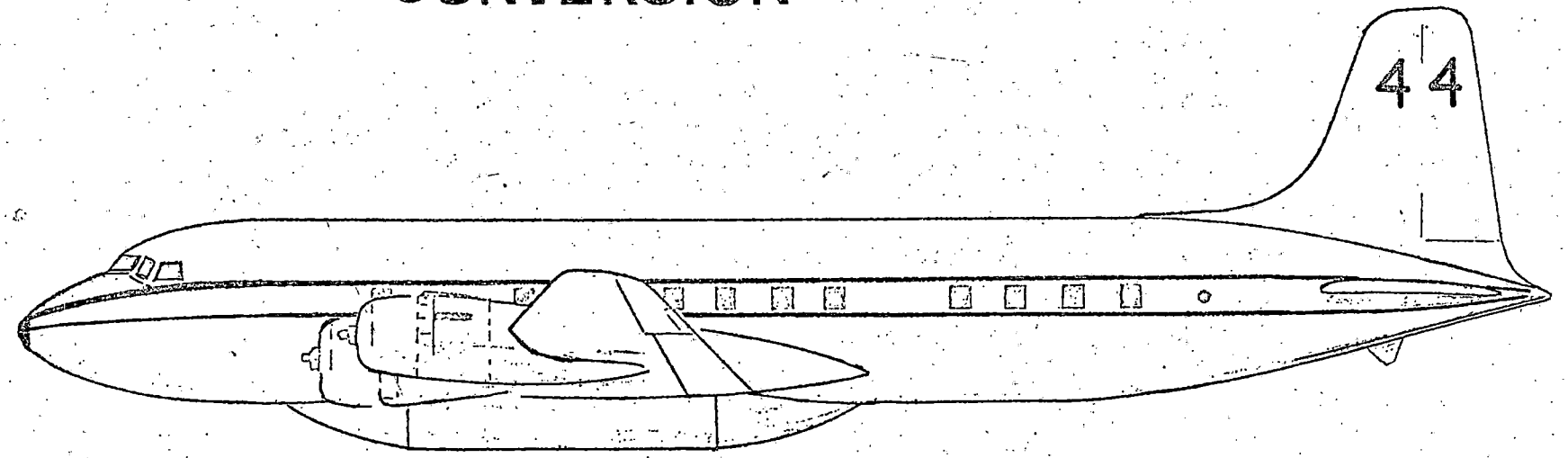
DETAILED INSTRUCTIONS FOR RECORDS MANAGEMENT PROCEDURES ARE CONTAINED IN THE OFFICE SERVICES MANUAL

LES DIRECTIVES CONCERNANT LES METHODES DE GESTION DES DOSSIERS FIGURENT DANS LE MANUEL DES SERVICES DE BUREAU

DC 6/13 RETARDANT-TANK MAINTENANCE

ROUGH - DRAFT

DC-6 AIR TANKER CONVERSION



Conair
AVIATION LTD.
ABBOTSFORD, B.C.

DC-6 AND DC-7

RETARDANT SYSTEM MAINTENANCE INSTRUCTIONS

NOTE - For detailed description of Retardant System, see Flight Hand Book (Appendage)

2-1 OPERATIONAL CHECK OUT

WARNING

KEEP ALL PERSONNEL CLEAR OF RETARDANT DOORS AND ACTUATORS DURING OPERATIONAL CHECK OUT.

Check and activate the arming, drop system, and air pump circuit breakers. Pressurize the pneumatic system by turning "on" pump switches. (See Fig 2-1). An external power source should be used if available.

NOTE

Check accumulator high pressure gauge reading periodically during operational check out. If pressure drops to 600 P.S.I. discontinue check out until pressure has increased to 1000 P.S.I.

2-2 Place the arming switch in the 'on' position, place drop selector in the 'safe' position. Depress and release the drop button.

Result: The doors should not open but the selector should advance to the first door position marked left. (See Fig 2-2).

2-3 Again depress and release the drop button.

Result: The left hand doors, #1 through #4, should open, and the drop selector should advance clockwise to the second door position. After the time delay interval has passed the closing cycle is initiated, at which time the door open lights will come on and the closing solenoids are activated on the door control valves, causing air to be directed to the closing ports on the actuators. Air will continue to flow until the building pressure causes the actuators to fully retract, and lock the door linkages over center. As each linkage reaches the end of its travel, it depresses a limit switch, breaking the circuit to the door light and the closing solenoid on the door control valve, stopping the air flow to its respective actuator.

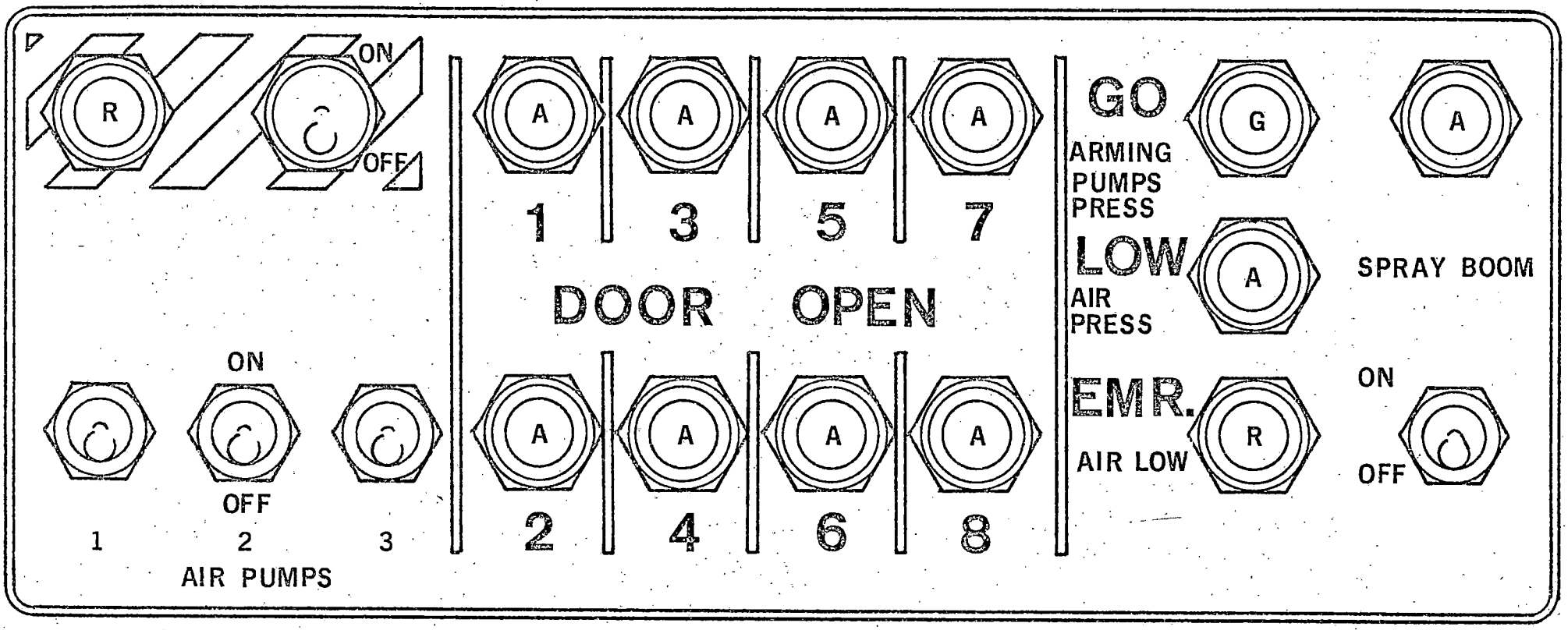


FIG. 2-1

2-4 Again depress and release the drop button.

Result: The right doors, #5 through #8, should respond in the same manner as the left doors. The drop selector should now advance to the 'all' position (8 door salvo).

2-5 Again depress and release the drop button.

Result: All eight doors should operate simultaneously, as in the preceeding checks. The drop selector should advance to the first two door positions.

2-6 The two door positions operate in exactly the same manner as described in paragraph (2-4) as do the single doors.

2-7 Auto System: In addition to the semi-automatic door operation just described, the drop system may also be operated in the fully automatic mode. (See Fig. 2-2). Place the toggle switch on the time sequence control assembly in the 'auto' position. Select #1 door and check for the green 'go' light.

ENSURE THAT NO EQUIPMENT OR PERSONNEL ARE NEAR ACTUATORS OR DOORS

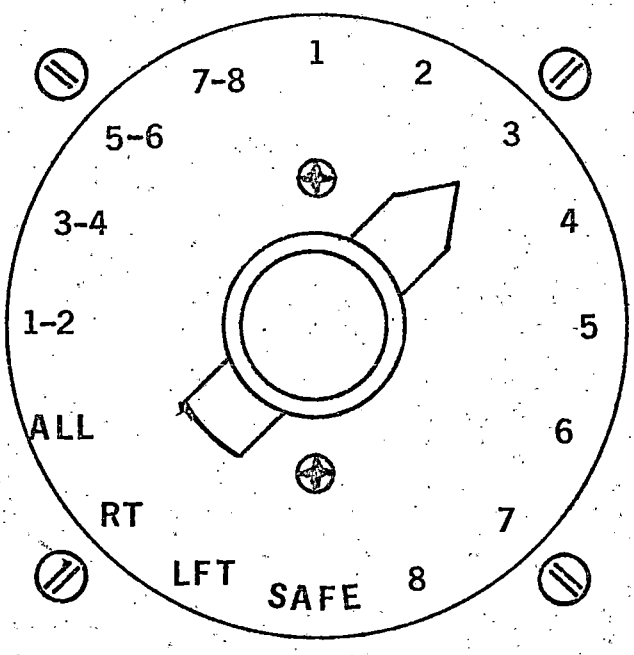
Press drop button.

Result: All eight doors should open numerically. The time interval between door openings can be regulated by adjusting the timer knob. (See Item 14 Fig 2-2). The auto mode may also be used for the two door and four door configuations.

2-8 In either the manual or auto mode the time delay interval will take place from the time the drop button is released, after initiating the final door opening. The doors will remain open until the drop button is released and time time delay interval has passed at which time all open doors will close simultaneously.

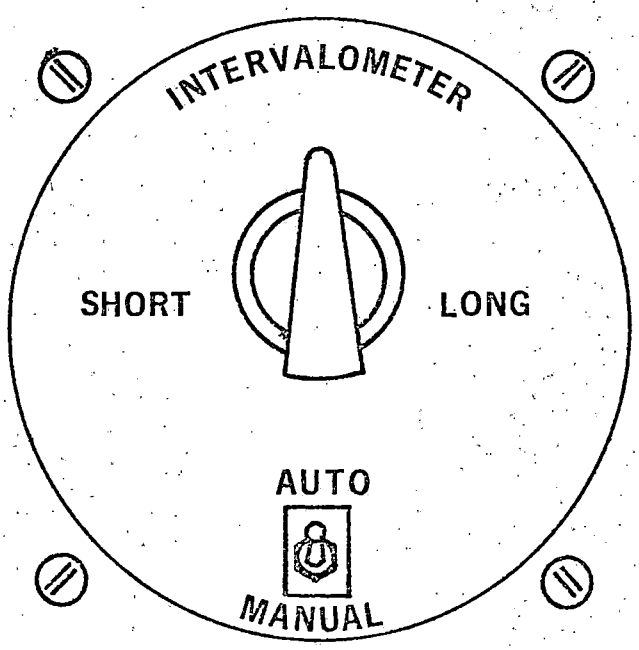
2-9 DOOR OPERATION

A complete functional check of the tank doors, requires that they be operated in all modes which are indicated on the selector switch. (See Fig 2-2). The normal system operates at approximately 250 P.S.I. So it will be necessary to stop at some point in the operational check to allow the accumulator air pressure to build up.



NEW MODEL FACE PLATE SHOWN
FACE PLATE PRESENTLY INSTALLED READS SAFE, ALL, LFT, RT.

DROP SELECTOR



DOOR INTERVAL TIMER

FIG. 2-2

WARNING: HIGH PRESSURE AIR USE CAUTION

2-10 EMERGENCY SYSTEM LEAK CHECK

The emergency system pressure gauge should read 300 P.S.I. Loosen both main air supply lines at regulators and bleed off all normal system pressure. Thusly, the air supply panel pressure guages should read zero but the emergency accumulator should read and hold at 300 P.S.I. If the emergency pressure drops off rapidly, test the one way check valve in the emergency system supply line and the emergency valve.

WARNING

KEEP ALL PERSONNEL CLEAR OF RETARDANT DOORS

2-11 EMERGENCY SYSTEM FUNCATION CHECK

A separate emergency air accumulator and valve is provided as a means of opening the tank doors in the event of failure of the normal system. The emergency valve is located above the throttles at the center line of the instrument panel. When the emergency valve is depressed, emergency regulated air bypasses the normal system solenoid valves, and is routed directly to the open side of the actuators by way of the momentary valves. As the emergency air pressure rises in the distribution lines, the electrical drop system relay is deactivated by means of a pressure switch. The doors will open and remain open until the emergency valve is returned to the normal position. This allows the air pressure in the emergency lines to vent off to the atmosphere. The drop system will rearm, and providing there is normal system air the tank doors will automatically close.

If the doors do not close, check the following:

1. System air press is at least 600 P.S.I.
2. Arming switch is on.
3. Emergency valve has been repositioned.
4. Circuit breakers are in.
5. Pressure switch in baggage compartment is functioning properly.

2-12, 2-13 and 2-14 - RESERVED

2-15 OPERATIONAL CHECK OUT OF AIR SUPPLY

Use auxiliary power if available.

A. Turn on air pumps.

Result: Air pumps should raise system pressure to 1000 P.S.I. and automatically shut off.

B. Loosen bleed screwon lower accumulator to depressurize air system.

Result: Air pumps should start operating when system pressure drops to 900 P.S.I. plus or minus 25 P.S.I.

C. Switch off air pumps.

Result: Emergency low pressure warning light should come on when system pressure drops to 800 P.S.I. and the normal system low pressure warning light should come on at 700 P.S.I.

D. Tighten bleed screw on accumulator and switch on air pumps.

Result: Air pumps should raise system pressure to 1000 P.S.I. and shut off automatically.

E. Any deviation from the above requirements must be corrected as detailed in the following paragraphs.

2-16 ADJUSTMENT OF AIR PUMPS

A. Remove cover from ~~left hand~~ CENTER pressure switch, (see Item 4 Fig. 2-3) on the air supply panel.

B. Caution - Loosen lock screw before attempting to turn adjusting screw.

C. To increase maximum system pressure, leave pump switches on and turn adjustment screw counter clockwise. At some point the air pumps should start and build system pressure. Check pressure reading and repeat this procedure until pressure reads 1000 P.S.I.

D. To decrease maximum system pressure, bleed off pressure to 1000 P.S.I. Turn adjusting screw clockwise until pumps stop.

E. Tighten adjustment lock screw.

2-17 ADJUSTMENT LOW PRESSURE WARNING LIGHT

A. Remove cover from ~~center~~ LEFT HAND pressure switch, (see Item 1, 3 Fig. 2-3) on the air supply panel.

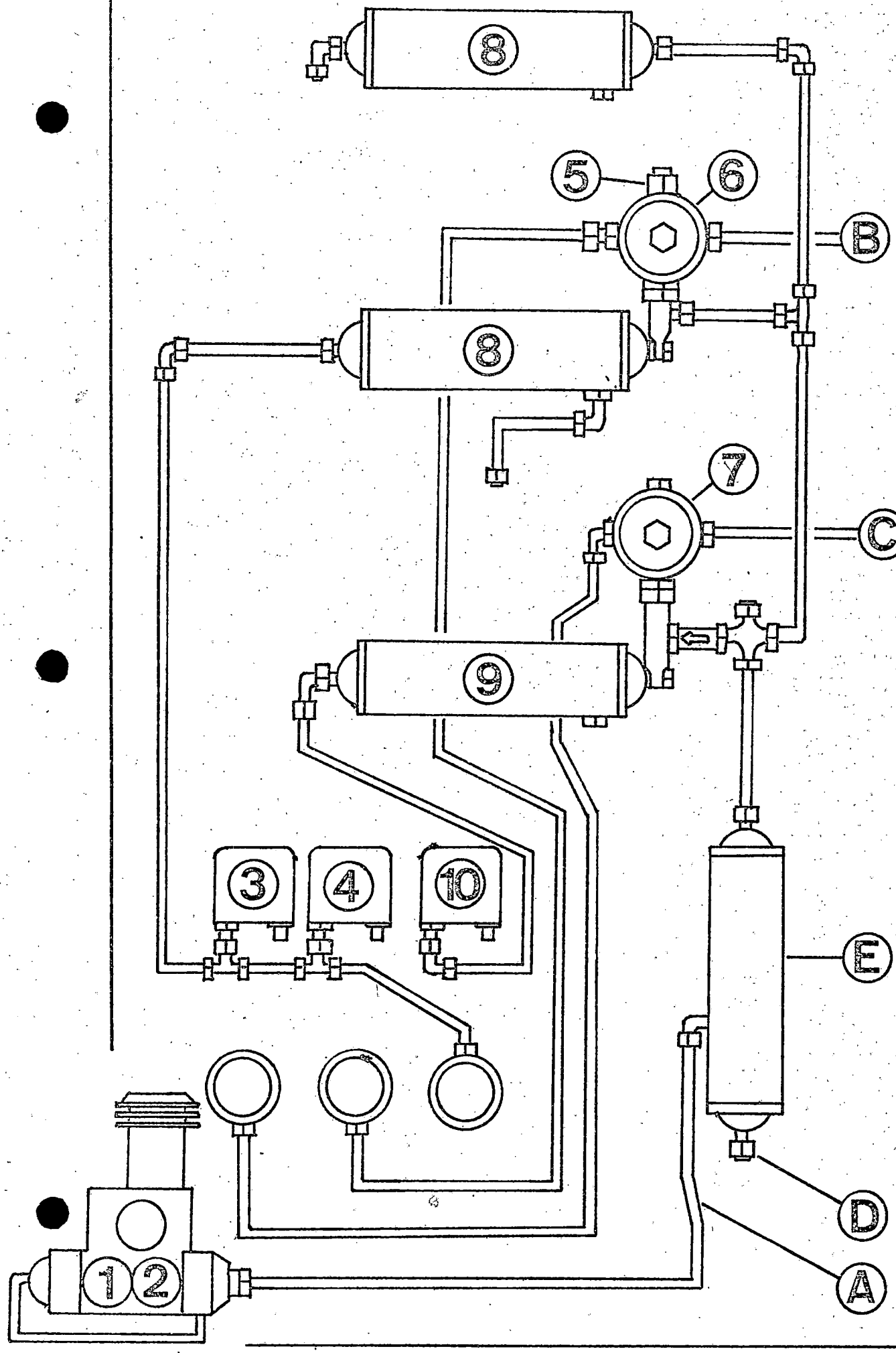


FIG. 2-3
000011

A. HIGH PRESS AIR
B. MAIN REGULATED AIR
C. EMER. REGULATED AIR
D. DRAIN E. DRYER
1. AIR PUMP 1.
2. AIR PUMP 2.
3. SYSTEM PRESS. SWITCH
4. LOW PRESS. WARNING SWITCH
5. LOW PRESS RELIEF.
6. SYSTEM PRESS. REGULATOR
7. EMER. PRESS. REGULATOR
8. MAIN SYSTEM ACCUMULATOR
9. EMER. SYSTEM ACCUMULATOR
10. EMER. PRESS. WARNING SWITCH

SETTINGS

(3) ON 900 ± 25 PSI OFF 1000 ± 25 PSI

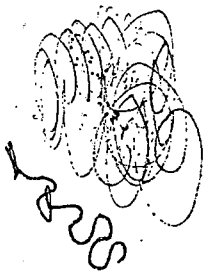
(4) ON 700 PSI OFF 800 PSI

(5) OPENS 500 PSI

(6) 250 PSI (7) 350 PSI

(10) ON 800 PSI OFF 900 PSI

FIG 2-~~3~~4



B. Caution: Loosen lockscrew before attempting to turn adjusting screw.

C. To increase pressure at which warning light comes on, turn the adjusting screw counter clockwise.

D. To decrease, turn adjusting screw clockwise.

E. When correctly adjusted, warning light should come on when system pressure drops to 700 P.S.I.

2-17A OPERATIONAL CHECK OUT FOUR WAY VALVE (MAIN DOORS)

A. The limit switch that controls the valve to be checked must be in the depressed position. If retardant door is open clamp limit switch in the depressed position.

B. Disconnect the lines from each end of the actuator that is controlled by the valve to be checked.

C. Arm the drop system and check for a green go light.

D. Position drop selector on door position to be checked.

E. Depress drop button

Result: A momentary air blast should occur through the lower actuator hose followed by a continuous flow of air through the upper actuator hose until the drop button is released. NOTE: The lower hose retracts the actuator and the opper hose extends the actuator.

F. Unclamp or extend door limit switch.

Result: Continuous air flow should occur through the lower hose as long as the limit switch is extended.

G. If air flow through hoses is obt ained as in steps E and F valve is functioning correctly.

2-19 IF OPERATION IS NOT AS DESCRIBED IN STEPS E AND F (PARAGRAPH 2-18), CHECK THE FOLLOWING:

1. If door will open manually, but not electrically

A. Check for a signal at open solenoid

B. If solenoid is receiving an open signal but is not activating, replace four way valve.

2. Door opens but will not close electrically.

A. Door open light indicates door is open. Check as 2.19 - 1A and 1B

B. If door open light does not indicate, check the door indicator light, limit switch and door close circuit wiring and connections.

NOTE

Door lights, when lit, indicate door is not closed but is receiving a closing signal.

2-20 RESERVED

TESTING AIR PRESSURE REGULATOR

NOTE

2-21 When adjusting regulators, accumulator pressure should be kept above 800 P.S.I. and air must pass through the orifice of the pressure regulator test assembly continuously, to obtain an accurate adjustment. (See Fig. 2-5).

A. Remove air hose from any actuator that receives its air through regulator to be tested.

B. Attach test assembly (see Fig.2-5) to disconnected hose.

C. Activate the valve supplying air to the test assembly.

D. Result: Air pressure should build in test assembly to the pressure specified for the regulator being tested (see paragraph 2-23)

E. If pressure does not indicate within these limits perform steps in paragraph 2-22.

2-22 ADJUSTMENT AIR PRESSURE REGULATOR (SEE FIG 2-5A)

A. Remove safety wire and loosen lock nut.

B. Turn adjusting bolt clockwise to increase pressure and counter clockwise to decrease.

C. Tighten lock nut and safety wire after adjustment.

D. Remove test assembly and install hose on actuator.

~~[illegible]~~

~~Use a non[illegible]ductive material [illegible] (example [illegible]stone)~~

NOTE

Door lights, when lit, indicate door is not closed, but is receiving a closing signal. ~~[illegible] solenoid.~~

2-20 RESERVED

TESTING AIR PRESSURE REGULATOR

NOTE

2-21 When adjusting regulators, accumulator pressure should be kept above 800 P.S.I. and air must pass through the orifice of the pressure regulator test assembly continuously, to obtain an accurate adjustment. (See Fig. 2-5)

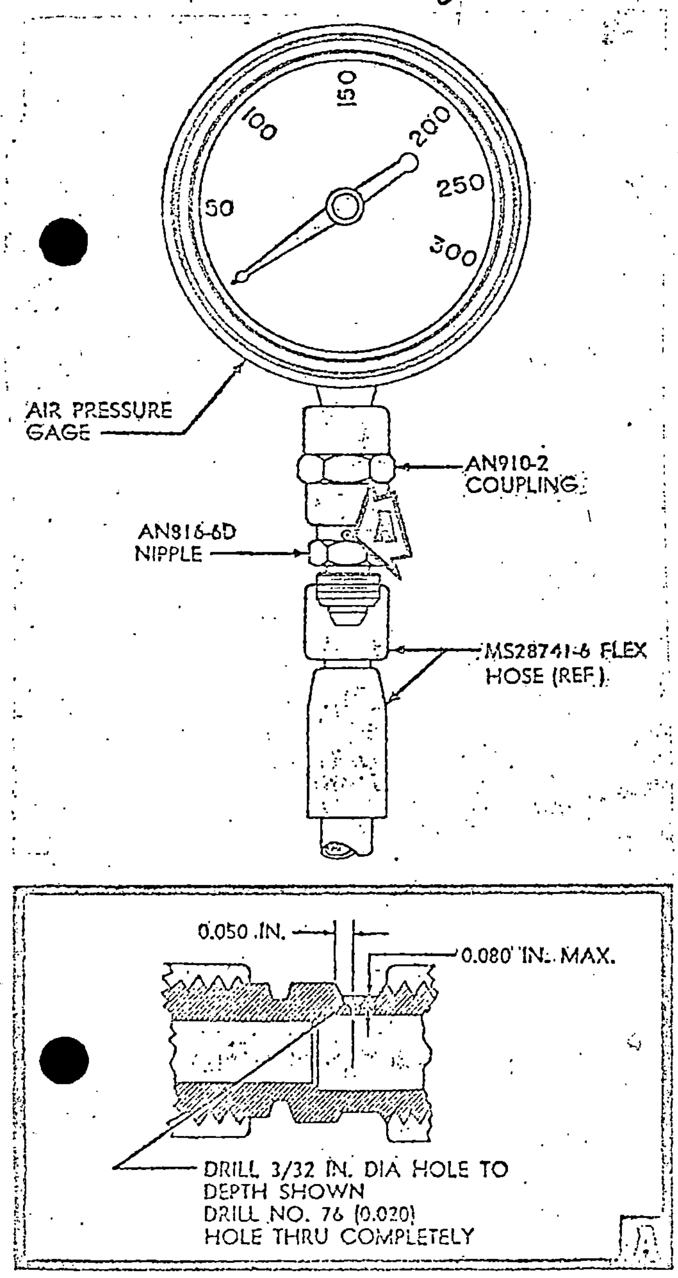
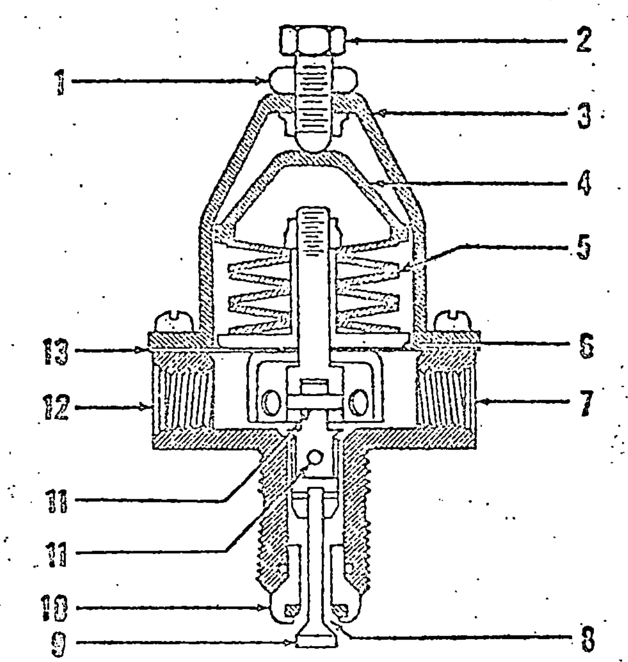


FIG. 2-5



NOTE: LOW-PRESSURE RELIEF VALVE NOT SHOWN

1 LOCK NUT
2 ADJUSTING BOLT
3 UPPER VALVE BODY
4 SPRING GUIDE
5 BELLEVILLE SPRING
6 SPRING SUPPORT
7 OUTLET PORT
8 INLET PORT
9 POPPET
10 POPPET SEAT
11 UNIVERSAL JOINT PINS
12 TEST CONNECTIONS
13 DIAPHRAGM

FIG. 2

2-23 AIR PRESSURE REGULATOR SETTINGS (SEE FIG 2-4)

A. Normal system regulated air 250 P.S.I.

B. Emergency system regulated air 300 P.S.I.

2-24 ADJUSTMENT OF MAIN DOOR IDLER OVER CENTER

WARNING

DEACTIVATE ARMING AND SYSTEM CIRCUIT BREAKERS

A. Close retardant doors.

B. Determine that actuator is fully retracted.

C. Check door linkage for an overcenter dimension of 3/32" to 1/8" as illustrated in (Fig 2-6). Adjust actuator rod end to obtain correct setting.

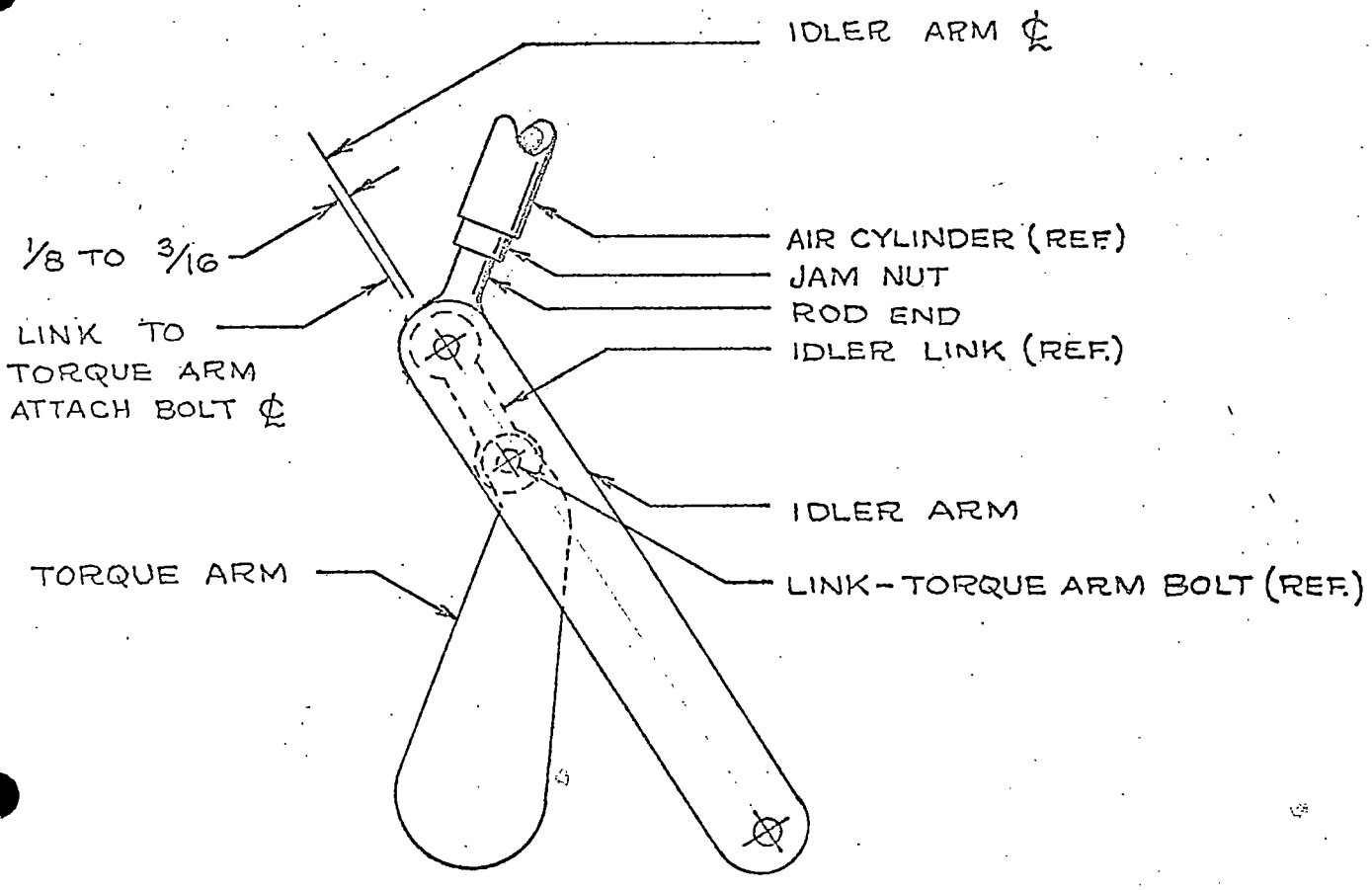


FIG 2-6

2-25 ADJUSTMENT OF LIMIT SWITCHES

WARNING

DEACTIVATE DROP SYSTEM CIRCUIT BREAKERS

A. Check linkage adjustment as outlined in Paragraph (2-24) before adjusting limit switch.

B. Adjust limit switch so that contacts will be actuated 1/8"before air actuator piston reaches the fully retracted position.

2-26 ADJUSTMENT OF TORQUE ARMS (SEE FIG. 2-7)

WARNING

DEACTIVATE DROP SYSTEM CIRCUIT BREAKERS

A. Check adjustment as outlined in Paragraphs 2-24 and 2-25.

B. Open tank doors, disconnect dog legs.

C. With shaft rotated to the full open position push door up and check alignment of door rib to center line of torque arm as illustrated in (Fig. 2-7) adjust as necessary.

D. Rotate shaft to full closed position making sure air actuator is in full travel position and idler over center adjustment is correct (See Fig. 2-6).

E. With suitable torque arm alignment gauge (See Fig.2-8) check each arm for on center alignment. Gauge must be firmly in contact with both sides of tank seal flange as shown at (A) and (B) in sketch and torque shaft, as at (C), and check made by sighting through torque arm holes (D in Fig. 2-8) to center line scribed on gauge.

F. If adjustment is required loosen torque arm clamp bolt. Align torque arm and retighten bolt to 150 inch pounds torque. NOTE: Check that the clamp bolt, when tight, has not completely closed the slot in the end of the torque arm. (See Item E, Fig. 2-8).

G. Reassemble link arms.

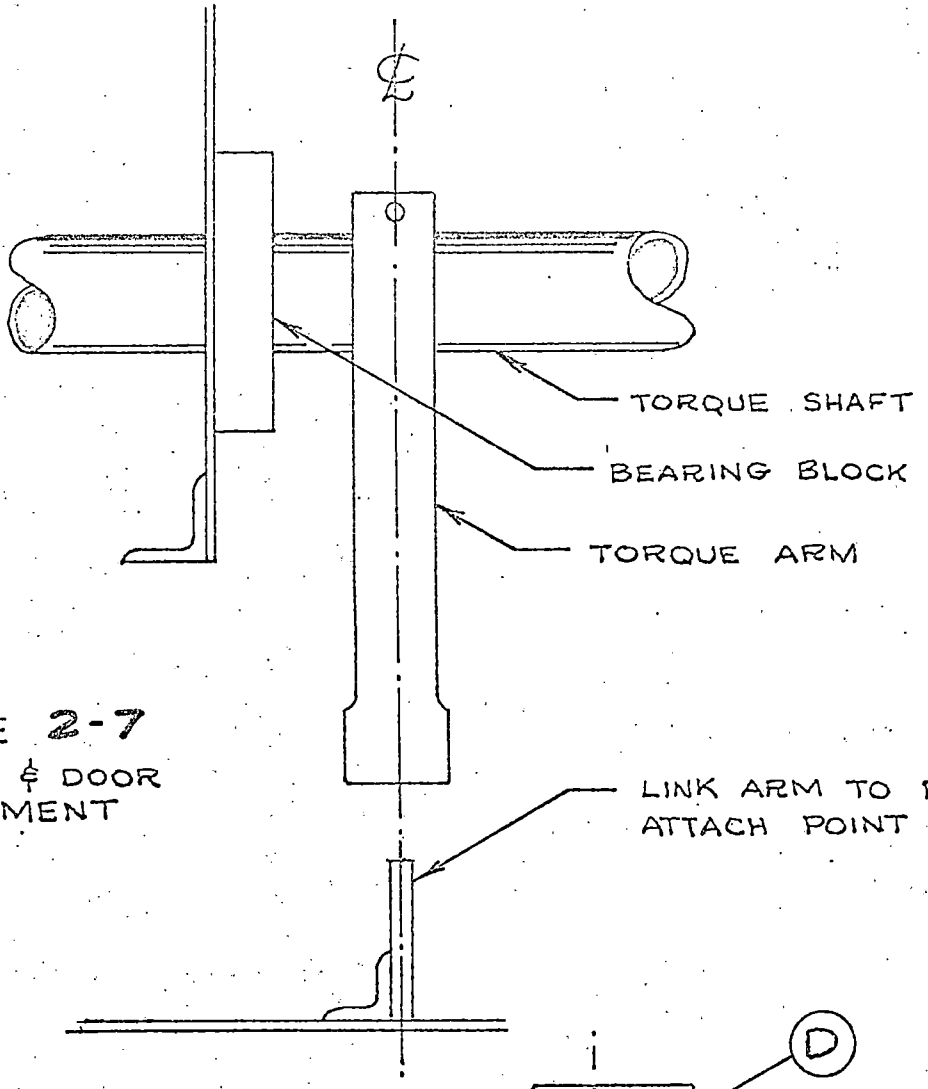
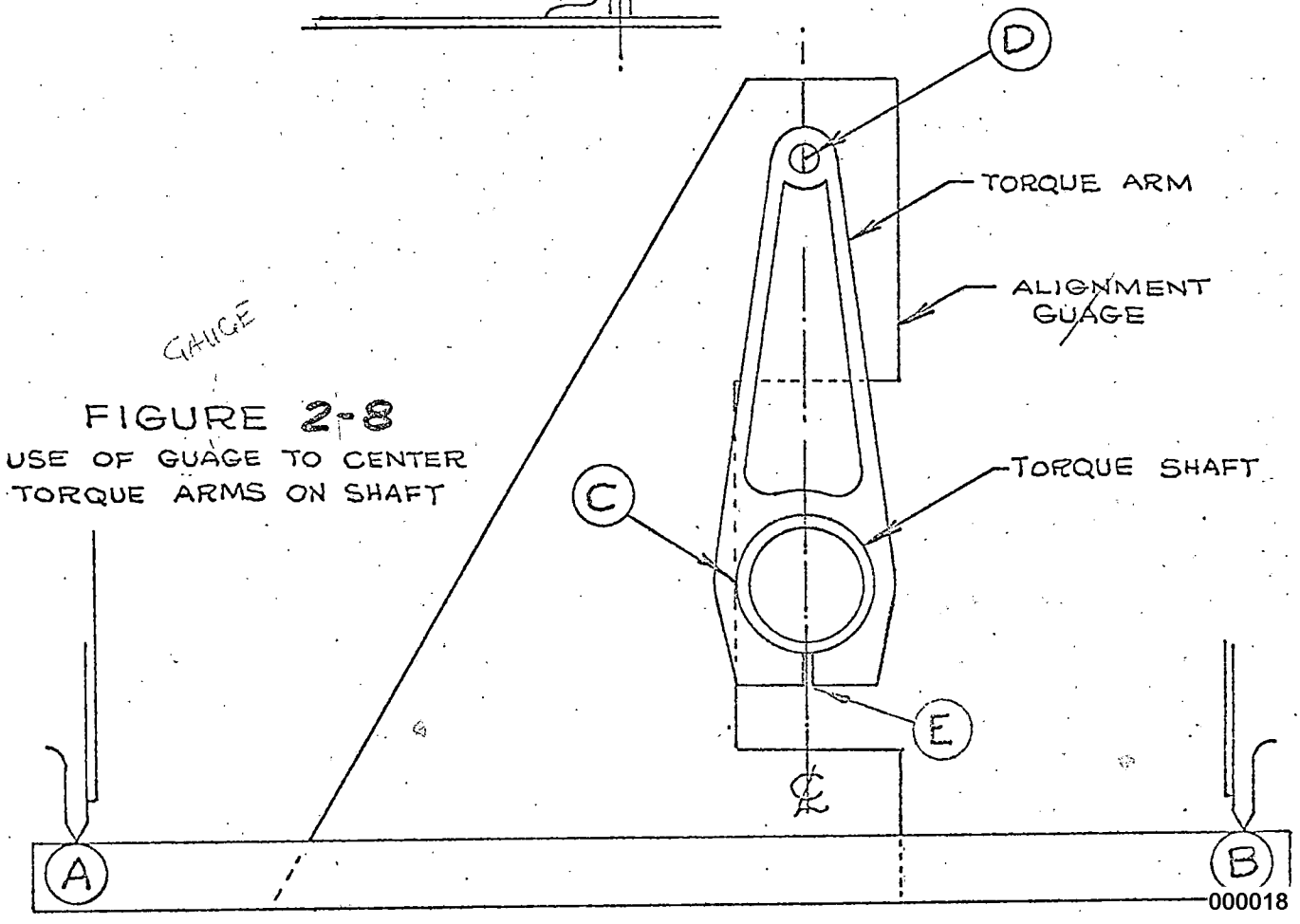


FIGURE 2-7
TORQUE ARM & DOOR ALIGNMENT



GAUGE

FIGURE 2-8
USE OF GUAGE TO CENTER TORQUE ARMS ON SHAFT

2-27 ADJUSTMENT OF DOOR SEAL PRELOAD

A. Check adjustments as outlined in Paragraph 2-24 to 2-26 before adjusting door seal preload.

B. Open door to be adjusted by manual operation of appropriate 4 way valve.

C. Loosen all clamp bolts (Link arms to door ribs)

D. Slide clamp bolt to bottom limit of slot and tighten clamp bolts to 100 inch pounds.

E. Close retardant door gently by manual operation of 4 way valve.

F. Open retardant door slowly by manual operation of 4 way valve.

G. Clamp bolts will have moved in their slots to a static load position.

H. Mark position of each clamp with pencil.

I. Loosen each clamp bolt and slide toward lower end of adjustment approximately 1/16 inch and retighten clamp bolts to 190 inch pounds.

J. Close retardant door manually making sure actuator travels to the full limit position.

K. Fill tank with water and check for leaks.

L. Readjust individual bays or entire door from observation, maximum adjustment increments to be 1/16 inch, and recheck for leaks. Repeat as necessary.

2-28 SERVICING RETARDANT SYSTEM

A. Carry out weekly under normal operating conditions. Drain any water from accumulators or drier if installed. See note below.

B. Check air compressor oil level and service with 30 weight mil-L6085 Shell or equivalent.

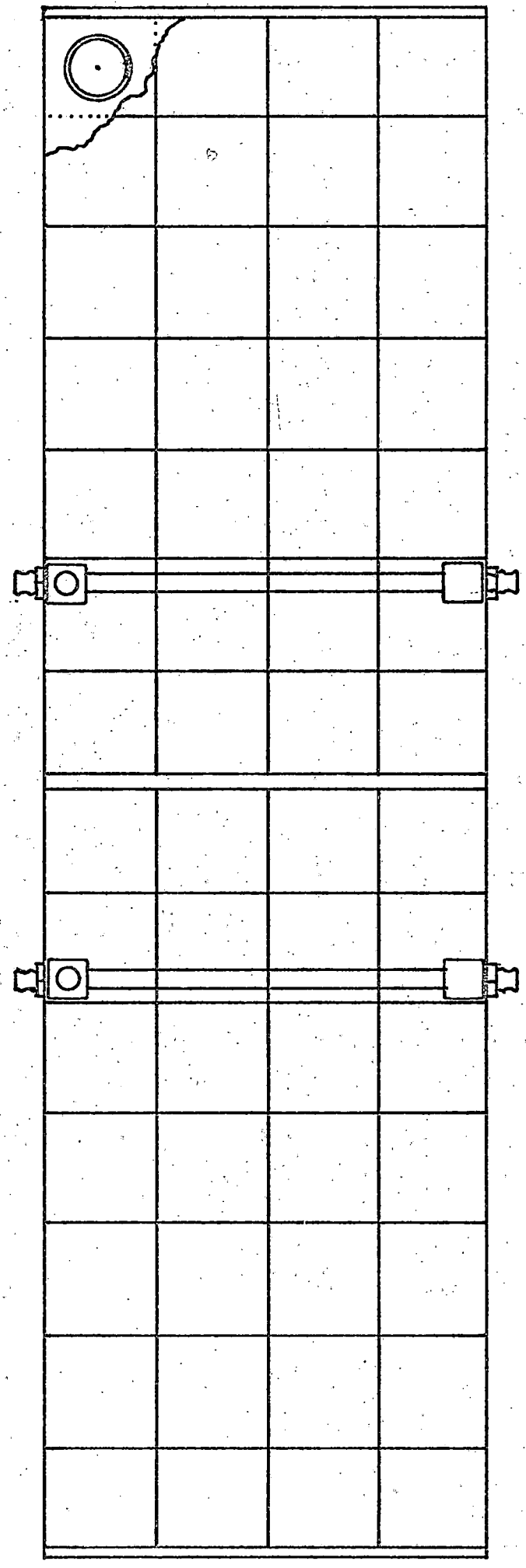
C. Disconnect the main air supply lines (one on each of the air valve panels located in the fwd and aft farings) and insert ten drops of hydraulic oil in each line. See note.

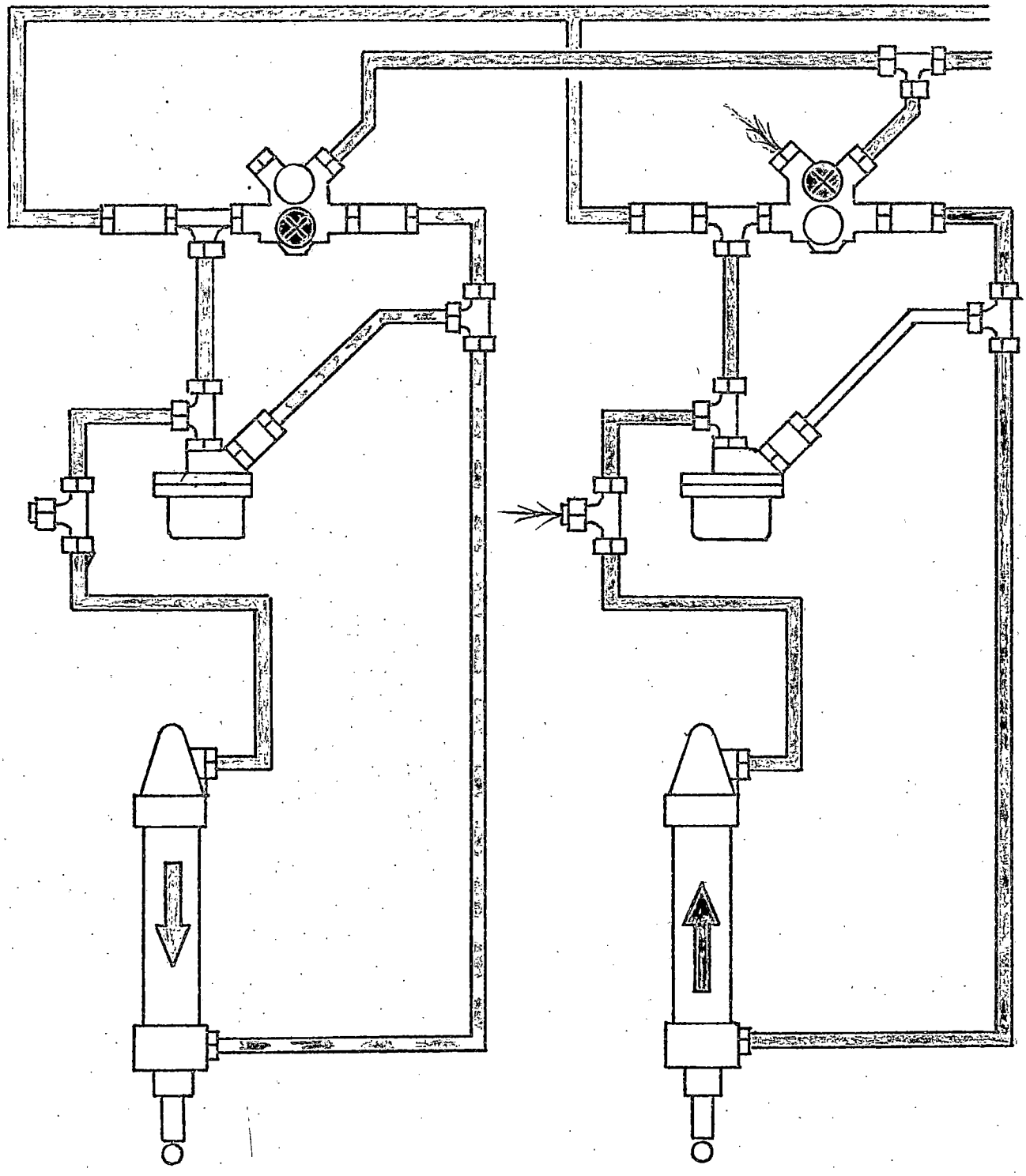
D. Grease idler arm and torque shaft bearings.

NOTE:

A. If high humidity is encountered during operation the accumulator or drier must be drained at least once every two days.

B. If system has been fitted with an automatic oiler, disregard 2-28C.





NORMAL SYSTEM SUPPLY
EMERGENCY SYSTEM
OPENING PRESSURE
CLOSING PRESSURE
MOMENTARY AIR
RETURN OR EXHAUST AIR
ACTIVATED SOLENOID
SYSTEM BLEEDS

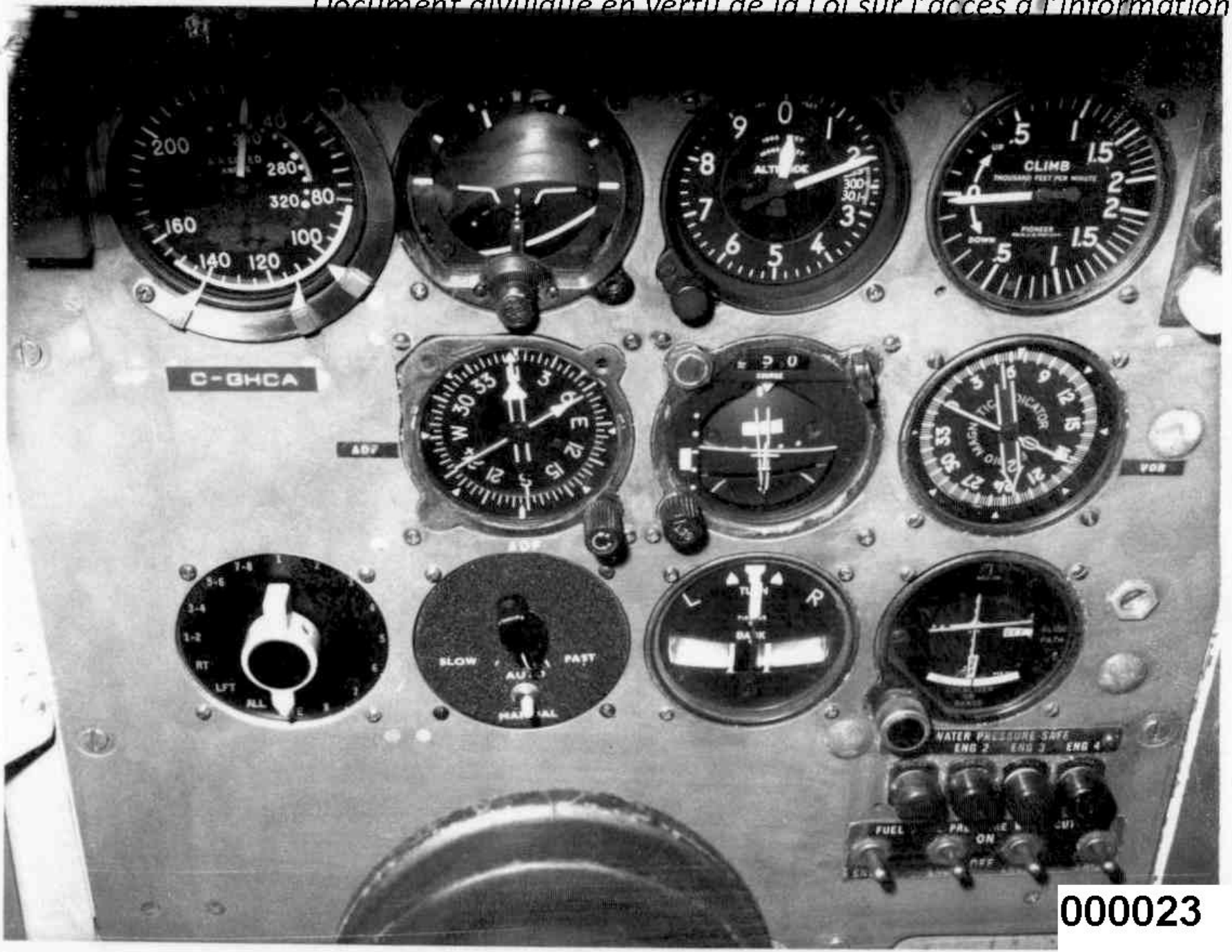
FIG. 2-10
000021

DEPARTMENT OF TRANSPORT
MINISTÈRE DES TRANSPORTS

IF UNDELIVERED RETURN TO POINT OF MAILING
EN CAS DE NON-LIVRAISON RENVOYER À L'EXPÉDITEUR

OFFICE AT / *BUREAU DE* 299 West Hastings St.
Vancouver 1, B.C.

02-0042(60)



s.19(1)

STATEMENT OF [redacted] B.C.

TAKEN AT KAMLOOPS AIRPORT ON 4 AUGUST, 1974 AT 11:05

I'm employed with the B.C. Forest Service, an employee of 20 years, I've.... I'm presently the air co-ordinator for the Kamloops Forest District, a roll which I've been employed in for two years. Five previous years as serving as a bird dog officer in the Kamloops District. My duties as an air co-ordinator is responsible for all the activity of the aircraft employed by the forest service in Kamloops.

On August the 2nd, 1974 Kamloops District experienced a severe lightning storm. Two bird dog aircraft were employed in Kamloops - both working fires that day, ah, these two were two A-26's and three Avengers. It was soon evident that these aircraft would not be sufficient to handle the fires that were showing up. Additional aircraft were requested. Further I was put in the roll as a bird dog officer for the day and was sent to work fires in the Lillooet area. This would be on the afternoon of August 2nd.

On route to Lillooet two fires were noted burning in the vicinity of Highland Valley. One Avenger was available and a DC-6 from Abbotsford was requested. At approximately 16:07 we dropped an Avenger load on the most Southerly fire and asked him to return to base for a re-load. At approximately 16:10 Tanker 41, being the DC-6B from Abbotsford called giving a position check and asked for a confirmation of fire location. On arrival at the fire Tanker 41, at approximately 16:20, [redacted], bird dog pilot of the aircraft briefed the DC-6 crew of the run and the type of drop that was required.. The bird dog then made the run and Tanker 41 acknowledged that he had the target and the run. Tanker 41 then reported that he was on final and the doors were armed. As he approached the target we could see that he was approximately 15 to 20 degrees off line. This was passed on to the target and he was requested to go around. The request was acknowledged and tanker overshot the target. At approximately half way through his circuit Tanker 41 reported that he was experiencing some difficulty and losing airspeed. [redacted] then advised him to drop the load.

A short time thereafter a crew member of Tanker 41 yelled that he was going in, or advised that he was going in. The aircraft appeared to strike trees with the left wing and immediately exploded. Within one or two minutes [redacted] reported the accident to the Kamloops Control Tower while I reported it to B.C. Forest District Headquarters at Kamloops. We returned to Kamloops Landing at approximately 16:39.

Q: What would you estimate the time of the accident to be?

A: It would be about between 16:20 and 16:30 P.D.T. - somewhere in there.

Q: Did you have the DC-6 in sight when he was making his run on the fire?

A: Yes, we were observing in the target area.

Q: What would you estimate his altitude in the fire areas?

A: It was really difficult to say because we were somewhat above, but he was advised prior to the fire, prior to passing over the fire to go around so he would be somewhat above the normal drop point of 70 feet.

So it's hard to say.... as he crossed I would say he was about 200 feet above.

Q: Did he fly directly away from the fire and then make a left turn to the point of impact?

A: As I recall, he crossed over the fire and went straight out and then secured a left turn.

Q: Now.... the first call that indicated they were having difficulty, can you recall what was said?

A: Not the exact wording, but as I recall it was, "We're having some trouble, I'm losing airspeed. We're having difficulty, we're losing airspeed."

Q: Do you know if it was the captain or the first officer?

A: No, I'm familiar with the captain, or I know the captain, but I never heard the first officer on, so I really couldn't say.

Q: And the final radio transmission, could you tell which one?

A: No, I couldn't say for sure.

Q: Was there any referrence at all of the time they aborted the run until the accident as to having difficulty with the dump system or anything to that effect?

A: No, no advice as to any problems with the dump system.

Q: Did you hear [redacted] say anything to the tanker during the overshoot from the fire?

A: Yes, as I mentioned earlier, [redacted] advised him to get rid of his load.

Q: Could you estimate the attitude of the DC-6 about this time; did you have him in sight?

A: Yah, we had him in sight and, ah, then he - it's really hard to say from the angle we were sitting, we were a bit higher and it's really difficult to say what the exact attitude of the aircraft was. It seemed he was flying in a slight bank, executing a left turn, and, ah, I couldn't say whether he was flying straight and level. Or straight at that time.... or if he was in a nose-up attitude.

Q: Just prior to impact, what was your position relative to the direction of flight of the DC-6?

A: We were more or less turning with it. Flying approximately.... we picked him up and we were flying approximately the same circuit, somewhat behind him, oh, a mile or two back and a couple of thousand feet up - I couldn't say exactly.

SLIDE INDEX - CF-PWA

1. An aerial view of the accident scene (brown area at centre) taken along the flight path of the aircraft. The terrain is rising ahead and to the right.

2. A view taken in the area of the fire looking towards terrain the pilot faced as he overshot after the left turn. The terrain rises ahead and to the left.

3. A view taken in the area of the fire of the terrain that the pilot could have selected by turning a few degrees to the right. This exit would have involved a right hand circuit to return to the fire.

4. A further view of the terrain in the accident area to illustrate the slope.

5. An aerial view of the accident scene.

6. A view looking back along the flight path. The angle of bank and angle of descent is clearly illustrated by broken trees.

7. A view near the point where the left wing struck the ground. Portions of the main wreckage can be seen in the background.

8. The main impact area with major portion of the wreckage in the background.

9. A closer view of the main impact area. The fire retardant tank rupture and the area was ankle deep in mud.

10. One of the propellor blades to show the extent of damage, indicating substantial power at impact. All propellor blades had similar damage.

11. A view taken near the centre section looking back along the wreckage trail. The remains of the retardant tank is visible in the foreground. One of the release doors can be seen in the near foreground.

12. The major portion of the wreckage, the centre section, portions of the wing root and one main wheel.

13. A further view of the main wreckage with the retardant tank in the foreground.

14. The accessory section of one of the engines to illustrate the intensity of the fire.

15. A view of the front of one of the engines. All engines had been stripped of propellor blades.

16. A view of the main instrument panel to illustrate the intensity of the post-impact fire.

17. An aircraft similar to the accident aircraft, fitted out for fire fighting.

18. A view of cockpit area. The red guarded button on the wheel is the normal method of releasing the retardant. The emergency release lever can be seen at centre of the panel below the glare shield.

19. A closer view of the emergency release lever.

20. A view of the drop system control panel, located near first officer on the right side of the aircraft.




















DEPARTMENT OF TRANSPORT
AIRCRAFT ACCIDENT INVESTIGATION DIVISION

CANADA

REPORT OF THE INQUIRY INTO AN AIRCRAFT

REGIONAL REF. 5002-P40069
H.Q. REF. 500
AIRCRAFT REG. CF-PWA

(1) ACCIDENT [X] DISAPPEARANCE [ ] INCIDENT [ ]
NEAR MISS [ ] OTHER [ ]

FOR INSTRUCTIONS SEE REVERSE SIDE OF EACH PAGE

AT (Name of nearest gazetted place): 8 miles SSE of Ashcroft
PROVINCE: B. C.
GEOGRAPHIC CO-ORDINATES: 50°37'N 121°12'W
DATE: DAY 2 MONTH August YEAR 1974
TIME (Standard Time Local): 16:25 PST
REGION: PACIFIC [X] WESTERN [ ] CENTRAL [ ] ONTARIO [ ] QUEBEC [ ] ATLANTIC [ ]

PERSONNEL IDENTIFICATION (2)

OWNER
NAME: Conair Aviation Ltd.
ADDRESS: Box 220, Abbotsford, B. C.

OPERATOR
NAME: SAME AS OWNER [X] OR
ADDRESS:
ATC LICENCE NUMBER: 1907/69 (C)
H.Q. USE OPER. CODE:
STATUS RESPECTIVE TO THIS AIRCRAFT: UNKNOWN [ ] OWNER [X] RENTER [ ] LESSEE [ ]

A.T.C. LICENCE CLASSIFICATION THIS FLIGHT
NONE [ ] 4 [ ] 7 RF [ ] 7 AAD [ ] 7 AAM [ ]
1 [ ] 5 [ ] 7 FT [ ] 7 AIRA [ ] 8 [ ]
2 [ ] 6 [ ] 7 AP [ ] 7 AC [X] 9 [ ]
3 [ ] 7 APS [ ] 7 A CONST. [ ]

PILOT IN COMMAND
NAME: SAME AS OWNER [ ] OPERATOR [ ] OR
James Fredrick Fewell
ADDRESS: 32687 Huntingdon Road, R. R. 5, Abbotsford, B. C.
LICENCE NUMBER: VRS 913

STATUS IF NOT OWNER OR OPERATOR:
UNAUTHORIZED USER [ ] EMPLOYEE [X]
RENTER [ ] BORROWER [ ]
CLUB MEMBER [ ] OTHER [ ]
SPECIFY:

OTHER CREW ON BOARD (3)
NONE [ ] THIRD PILOT [ ] FLIGHT ENGINEER [ ] FLIGHT OBSERVER [ ] NO. OF CABIN ATTENDANT(S)
SECOND PILOT [X] NAVIGATOR [ ] CREWMAN [X] TECHNICIAN [ ]

PASSENGERS
NUMBER ON BOARD: NONE

MATERIAL IDENTIFICATION

AIRCRAFT	REGISTRATION	MAKE	MODEL	TOTAL HRS.	MAXIMUM CERT. TAKE-OFF WEIGHT	YEAR OF MANUFACTURE
	CF-PWA	Douglas	DC6B	39,847	97,290	1955

CATEGORY
AEROPLANE [X] GLIDER [ ] VTOL [ ]
HELICOPTER [ ] GYRO COPTER [ ] GYRO GLIDER [ ]
DIRIGIBLE [ ] FREE BALLOON [ ] OTHER [ ]
IF OTHER SPECIFY:

HOME BUILT: YES [ ] NO [X]
ULTRA LIGHT: YES [ ] NO [X]

LANDING GEAR
AMPHIBIOUS (HULL) [ ] FLOATS [ ]
RETRACTABLE WHEELS [X] FIXED WHEELS [ ]
SKI-WHEEL [ ] WHEEL FLOATS [ ]
HULL [ ] SKIDS [ ]
SKIS [ ] FLOAT-SKID [ ]
OTHER [ ] IF OTHER SPECIFY

LANDING GEAR CONFIGURATION
TRICYCLE [X] OTHER [ ]
TAIL WHEEL [ ]

WING/ROOTER
LOW-WING [X] BI-PLANE [ ]
HIGH-WING [ ] MID-WING [ ]
SINGLE-ROTOR [ ] TWIN-ROTOR [ ]
OTHER [ ]

SPECIAL EQUIPMENT
NONE [ ] TOWING GEAR [ ]
AMBULANCE [ ] AIR-DROP (CARGO) [ ]
AIR-DROP (PARACHUTIST) [ ] PHOTO [ ]
MAGNETOMETER [ ] SLING/HOIST [ ]
WATER BOMBING [X] SPRAY DUST [ ]
MONSOON GEAR [ ] OTHER [ ]
IF OTHER SPECIFY:

000029

INSTRUCTIONS

Pages 1 and 2 of the form are to be submitted to Headquarters within 15 working days of the occurrence

The remaining pages are to be submitted as soon as possible after the investigation is complete

Photographs should be included as they assist in presenting an understandable statement of the circumstances of an occurrence. They should be appropriately identified, affixed to 8½" × 11" sheets of white bond and inserted between pages 8 and 9 of the report.

Questions which are identified with a circled number: e.g. (2), are further explained on the reverse side of the same sheet

Upper case X's are to be used to indicate selected squares

All substantiating documents, reports, etc. are to be appended following page 12

Occurrences, which are the result of a collision of two or more moving aircraft will be reported on two or more report forms, i.e., one form for each moving aircraft.

(1) This report intends to provide a standard means of communicating concisely and accurately, the factual findings of aircraft accident investigators. It has been designed with the workload of the investigator in mind. The arrangement of the data is deliberately keyed to the probable sequence of events inherent in any aircraft accident. In this way a clear picture of what happened will be conveyed from the mind of the investigator to the reader of the report.

It is important that every section of the report be carefully completed since it is a source document for accident prevention activities. Should an investigator decide that the form does not adequately accommodate a particular accident, the investigator should supplement the report with notes at appropriate places.

(2) The intent here is to clearly establish the relationship between the aircraft and certain specific persons and the relationship of those persons to each other. The total complement of persons on board the aircraft should be accounted for in this section.

(3) Crew member is defined as any person involved in the operation of the aircraft. In cases where a student pilot or licenced pilot is receiving training the instructor is normally classified as the pilot in command and the trainee as the second pilot.

ENGINE(S) MAKE	MODEL	SERIAL NO.	NUMBER INSTALLED
Pratt & Whitney	R2800-CB16/17	33482, 29210, 27483, 32384	4

TYPE: SUPERCHARGED PISTON [X] PISTON [ ] TURBO-COMPOUND [ ] JET TURBINE WITH AFTERBURNER [ ] TURBO PROP [ ] JET TURBINE [ ] OTHER [ ] IF OTHER SPECIFY

POWER: 1900 RATED H.P. ____ RATED THRUST

PROPELLER(S) MAKE	MODEL	SERIAL NO.
Hamilton Standard	43E60	171979, 181872, 197040, 171977.

TYPE: FIXED WOODEN [ ] FIXED METAL [ ] VARIABLE PITCH [ ] CONSTANT SPEED [ ] CONSTANT SPEED FULLY FEATHERING [X]

SUB-TYPE: REVERSIBLE [X] NOT REVERSIBLE [ ]

ENVIRONMENT IDENTIFICATION (1)

OPERATION

SCOPE THIS FLIGHT: INTERNATIONAL [ ] DOMESTIC [X] NOT KNOWN [ ]

LOAD DESCRIPTION: NONE [ ] PASSENGERS [ ] PARACHUTIST [ ] FREIGHT/EXPRESS [ ] CARGO/PASSENGERS [ ] WATER/CHEMICAL [X] PESTICIDES [ ] POLES/TOWERS [ ] FISH/FISH EGGS [ ] PHOTO EQUIPMENT [ ] FERTILIZER [ ] OTHER [ ] SIGN/DROGUE [ ] GLIDER [ ] IF OTHER SPECIFY:

LOAD POSITION: INTERNAL [X] EXTERNAL [ ] N/A. [ ]

OBJECTIVE (2)

ADVERTISING [ ] CONTROL [ ] DEMONSTRATION [ ] FIRE CONTROL [X] HOISTING [ ] INSPECTION [ ]
TRANSPORTATION [ ] SURVEY [ ] SPRAY/DUST/SEEDING [ ] SEARCH [ ] RECREATION [ ] TESTING [ ]
TOWING [ ] TRAINING [ ] FERRYING [ ] POSITIONING [ ] OTHER [ ] SPECIFY:

PRELIMINARY VERSION OF ACCIDENT (3)

PROVIDE A BRIEF HISTORY OF THE FLIGHT AND NARRATE AS MANY OF THE CIRCUMSTANCES OF THE ACCIDENT AS ARE KNOWN AT THIS TIME, BEGINNING WITH THE FIRST IRREGULARITY OF THE FLIGHT.

The pilot was on a water bombing run but aborted as his direction of flight was not as directed by the "bird dog". He overshot and commenced a left turn towards rising terrain. After completing about 220° of the turn, the aircraft stalled and struck ground in a left wing low, nose down attitude. Impact and fire destroyed the aircraft.

PRELIMINARY POST-OCCURRENCE DATA

AIRCRAFT DAMAGE: NONE [ ] MINOR [ ] SUBSTANTIAL [ ] DESTROYED [X] UNKNOWN [ ]

NUMBER OF CASUALTIES

	KILLED	SERIOUS INJURY	MINOR INJURY	UNINJURED
PILOT-IN-COMMAND	1			
OTHER CREW	2			
PASSENGERS	-			
PERSONS OUTSIDE AIRCRAFT	-			

INVESTIGATION:
BY CIVIL AVIATION INSPECTOR(S) ONLY [X]
BY CIVIL AVIATION AND AIRWORTHINESS INSPECTORS [ ]
BY AIRWORTHINESS INSPECTOR(S) ONLY [ ]
BY CORRESPONDENCE [ ]
D.N.H.W. ASSISTANCE [ ]
TECHNICAL/METALLURGICAL EXAM. [ ]

(1) In order for the reader to properly appreciate the environmental problems which might have affected the aircraft and/or pilot, he must have accurate knowledge of the details of the operation.

(2) The word selected here should be that which most closely describes the intent of the operation. Choice of the proper word will accurately portray the environment hazards inherent in the flight.

(3) This paragraph will normally contain the type of information which is quickly available, i.e. from discussion with the pilot, crew, passengers or eye witnesses. The statement should be as brief as possible, but clear.

PRE-OCCURRENCE CONDITIONS - CREW

(1) AIRCRAFT REGISTRATION: CF-PWA

PERSONAL DATA-QUALIFICATIONS

COMPLETE A SEPARATE PAGE FOR EACH PERTINENT CREW MEMBER. (2)

CREW MEMBER

- PILOT-IN-COMMAND [X]
- 2ND PILOT [ ]
- 3RD PILOT [ ]
- FLIGHT ENGINEER [ ]
- NAVIGATOR [ ]
- CREWMAN [ ]
- CABIN ATTENDANT [ ]
- FLIGHT OBSERVER [ ]
- OTHER [ ] SPECIFY:

STATION OCCUPIED

- NOT KNOWN [ ]
- PILOT SEAT [X]
- SECOND IN COMMAND SEAT [ ]
- FLIGHT ENGINEER SEAT [ ]
- NAVIGATOR SEAT [ ]
- REST POSITION [ ]
- PASSENGER CABIN [ ]
- OTHER [ ]

SPECIFY:

SPECIAL FUNCTION

- NONE [X]
- INSTRUCTOR [ ]
- COMPANY EXAMINER [ ]
- D.O.T. EXAMINER [ ]
- TECHNICIAN [ ]
- STUDENT [ ]
- OTHER [ ] SPECIFY:

PERSONAL DATA

AGE	SEX	SURNAME	INITIALS	LICENCE NUMBER
55	Male	Fewell	J.F.	VRA 1320

LICENCES AND PERMITS HELD

CANADIAN [X] FOREIGN [ ]

- NONE [ ]
- UNKNOWN [ ]
- AIRLINE TRANSPORT [X]
- SENIOR COMMERCIAL [ ]
- COMMERCIAL [ ]
- PRIVATE [ ]
- STUDENT PERMIT [ ]
- FLIGHT ENGINEER [ ]
- NAVIGATOR [ ]
- GLIDER [ ]
- GYROPLANE [ ]
- BALLOON [ ]
- MAINTENANCE ENGINEER [ ]

AIRCRAFT CLASSIFICATIONS

- HELICOPTER ONLY [ ]
- SINGLE-ENGINE LAND [ ]
- SINGLE-ENGINE SEA [ ]
- S.E. LAND AND SEA [ ]
- S. & MULTI ENGINE LAND [ ]
- S. & MULTI ENGINE SEA [ ]
- S. & M.E. LAND AND SEA [X]

AIRCRAFT TYPE ENDORSEMENTS

- HELICOPTER [ ]
- GYROPLANE [ ]

RATINGS

- NONE [ ]
- INSTRUCTOR CL 1 [ ]
- INSTRUCTOR CL 2 [ ]
- INSTRUCTOR CL 3 [ ]
- INSTRUMENT 1 [X]
- INSTRUMENT 2 [ ]
- BLOCK AIRSPACE [ ]
- NIGHT [ ]

EXPERIENCE – FLYING TIME (To nearest hour - if unknown complete with X)

	ALL TYPES	THIS TYPE	DUAL ON THIS TYPE	THIS U/C CONFIGURATION	SINGLE ENGINE	MULTI ENGINE	ACTUAL INSTRUMENT	NIGHT	NIGHT X-COUNTRY	ROTOR-CRAFT
TOTAL HOURS	9800	2740	X	X	X	X	X	X	X	X
HRS. LAST 90 DAYS	51.6	24.5	-	X	X	X	X	X	X	X

FATIGUE FACTORS

	TOTAL LAST 3 DAYS	TOTAL THIS FLIGHT	HOURS AWAKE SINCE LAST REST PERIOD
FLYING TIME	1:00 HRS.	1:00 HRS.	9:25 HRS.

PILOT FLIGHT PREPARATION

COMPLETE ON PILOT-IN-COMMAND PAGE ONLY

WEATHER BRIEFING

- ACCREDITED BRIEFER [ ]
- NONE [ ]
- COMPANY FACILITY [ ]
- UNKNOWN [X]
- OTHER PILOT [ ]
- ACCREDITED FORECASTER [ ]
- OTHER OBSERVER [ ]
- SELF BRIEFING [ ]

OTHER BRIEFINGS

- NONE [X]
- UNKNOWN [ ]
- ROUTE [ ]
- DEPARTURE PROCEDURES [ ]
- OPERATION [ ]
- ARRIVAL PROCEDURES [ ]
- NOTAMS [ ]

DOCUMENTS CARRIED

- NONE [ ]
- COCKPIT CHECK LIST [ ]
- FLIGHT OR OPERATING MANUAL [X]
- ADEQUATE VFR [X]
- INADEQUATE VFR [ ]
- ADEQUATE IFR [ ]
- INADEQUATE IFR [ ]

FLIGHT PLAN FILED

- NONE [ ]
- SVFR [ ]
- IFR [ ]
- CONTROLLED VFR [ ]
- VFR [ ]
- FLIGHT NOTIFICATION [X]

EXECUTION OF FLIGHT TO START OF OCCURRENCE

ADHERENCE TO PLAN

- NO DEVIATION [X]
- ALTERATION FOR WX [ ]
- ALTERATION FOR TRAFFIC [ ]
- BECAME LOST [ ]
- ALTERATION FOR U/S [ ]
- OTHER [ ] SPECIFY:

PHASE OF FLIGHT DURING WHICH FIRST IRREGULARITY OCCURRED

GROUND

- START-UP [ ]
- MOORING [ ]
- STATIONARY [ ]
- DOCKING [ ]
- TAXIING [ ]
- RAMPING (AMPHIBIOUS) [ ]
- AIR-TAXIING [ ]
- SHUT DOWN [ ]
- STEP-TAXIING [ ]
- PARKING [ ]
- BEACHING [ ]

TAKEOFF

- LINE-UP [ ]
- RUN [ ]
- LIFTOFF [ ]
- HOVER [ ]

IN-FLIGHT

- CLIMB [ ]
- DESCENT [ ]
- CRUISE [ ]
- LEVEL TURN [ ]
- CLIMBING TURN [X]
- DESCENDING TURN [ ]
- TRANSLATION [ ]
- HOVER [ ]

LANDING

- INITIAL APPROACH [ ]
- FINAL APPROACH [ ]
- FLARE [ ]
- HOVER [ ]
- TOUCH-DOWN [ ]
- RUN-OUT [ ]
- TURN-OFF [ ]

OTHER

- LOAD-PICKUP [ ]
- LOAD DROP [ ]
- LOAD POSITIONING [ ]

NAVIGATION AND APPROACH AIDS

RADIO COMMUNICATIONS EQUIPMENT — ADEQUATE [ ] INADEQUATE [ ]

AIDS AVAILABLE	V.H.F. D.F.	DME	VOR	TACAN	ILS	ASR	PAR	ADF	LORAN	L.F. RNG	NONE
IN AIRCRAFT		X	X		X			X			
ON GROUND											
IN USE BY A/C AT TIME OF OC.											

(1) The purpose of this section is to identify the man being reported on the remainder of the page and to define his function with respect to the aircraft. Also included are the flying background facts which indicate his level of proficiency.

(2) A pertinent crew member is one who can or did affect the course or conduct of the flight.

Example 1: A student pilot allows a swing to develop on take-off and the instructor is unable to correct before a ground loop results. In this case a seperate page for each is required. On the other hand, during cruising flight the engine fails suddenly and the instructor takes over control and strikes a fence during the forced landing. Complete a page for the instructor only.

Example 2: The aircraft collides with ramp vehicle while taxiing. No page need be completed for navigator or flight engineer if carried on board.

PRE-OCCURRENCE CONDITIONS - CREW

(1) AIRCRAFT REGISTRATION: CF-PWA

PERSONAL DATA-QUALIFICATIONS

COMPLETE A SEPARATE PAGE FOR EACH PERTINENT CREW MEMBER. (2)

CREW MEMBER

- PILOT-IN-COMMAND [ ]
- 2ND PILOT [X]
- 3RD PILOT [ ]
- FLIGHT ENGINEER [ ]
- NAVIGATOR [ ]
- CREWMAN [ ]
- CABIN ATTENDANT [ ]
- FLIGHT OBSERVER [ ]
- OTHER [ ] SPECIFY:

STATION OCCUPIED

- NOT KNOWN [ ]
- PILOT SEAT [ ]
- SECOND IN COMMAND SEAT [X]
- FLIGHT ENGINEER SEAT [ ]
- NAVIGATOR SEAT [ ]
- REST POSITION [ ]
- PASSENGER CABIN [ ]
- OTHER [ ] SPECIFY:

SPECIAL FUNCTION

- NONE [X]
- INSTRUCTOR [ ]
- COMPANY EXAMINER [ ]
- D.O.T. EXAMINER [ ]
- TECHNICIAN [ ]
- STUDENT [ ]
- OTHER [ ] SPECIFY:

PERSONAL DATA

AGE	SEX	SURNAME	INITIALS	LICENCE NUMBER
45	Male	Clack	P.G.	QMA 803

LICENCES AND PERMITS HELD

- CANADIAN [X] FOREIGN [ ]
- NONE [ ]
- UNKNOWN [ ]
- AIRLINE TRANSPORT [X]
- SENIOR COMMERCIAL [ ]
- COMMERCIAL [ ]
- PRIVATE [ ]
- STUDENT PERMIT [ ]
- FLIGHT ENGINEER [ ]
- NAVIGATOR [ ]
- GLIDER [ ]
- GYROPLANE [ ]
- BALLOON [ ]
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- SINGLE-ENGINE SEA [ ]
- S.E. LAND AND SEA [ ]
- S. & MULTI ENGINE LAND [X]
- S. & MULTI ENGINE SEA [ ]
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AIRCRAFT TYPE ENDORSEMENTS

- HELICOPTER [ ]
- GYROPLANE [ ]

RATINGS

- NONE [ ]
- INSTRUCTOR CL 1 [ ]
- INSTRUCTOR CL 2 [ ]
- INSTRUCTOR CL 3 [ ]
- INSTRUMENT 1 [X]
- INSTRUMENT 2 [ ]
- BLOCK AIRSPACE [ ]
- NIGHT [ ]

EXPERIENCE – FLYING TIME (To nearest hour - if unknown complete with X)

	ALL TYPES	THIS TYPE	DUAL ON THIS TYPE	THIS U/C CONFIGURATION	SINGLE ENGINE	MULTI ENGINE	ACTUAL INSTRUMENT	NIGHT	NIGHT X-COUNTRY	ROTOR-CRAFT
TOTAL HOURS	9500.0	118.0	X	X	207	9293.0	930	X	X	X
HRS. LAST 90 DAYS	109.5	109.5	X	109.5	X	109.5	-	X	-	X

FATIGUE FACTORS

FLYING TIME	TOTAL LAST 3 DAYS	TOTAL THIS FLIGHT	HOURS AWAKE SINCE LAST REST PERIOD
	1:00 HRS.	1:00 HRS.	9:30 HRS.

PILOT FLIGHT PREPARATION

COMPLETE ON PILOT-IN-COMMAND PAGE ONLY

WEATHER BRIEFING

- NONE [ ]
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- COMPANY FACILITY [ ]
- UNKNOWN [ ]
- OTHER PILOT [ ]
- ACCREDITED FORECASTER [ ]
- OTHER OBSERVER [ ]
- SELF BRIEFING [ ]

OTHER BRIEFINGS

- NONE [ ]
- UNKNOWN [ ]
- ROUTE [ ]
- DEPARTURE PROCEDURES [ ]
- OPERATION [ ]
- ARRIVAL PROCEDURES [ ]
- NOTAMS [ ]

DOCUMENTS CARRIED

- NONE [ ]
- COCKPIT CHECK LIST [ ]
- FLIGHT OR OPERATING MANUAL [ ]
- ADEQUATE VFR [ ]
- INADEQUATE VFR [ ]
- ADEQUATE IFR [ ]
- INADEQUATE IFR [ ]

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- SVFR [ ]
- IFR [ ]
- CONTROLLED VFR [ ]
- VFR [ ]
- FLIGHT NOTIFICATION [ ]

EXECUTION OF FLIGHT TO START OF OCCURRENCE

ADHERENCE TO PLAN

- NO DEVIATION [ ]
- ALTERATION FOR WX [ ]
- ALTERATION FOR TRAFFIC [ ]
- BECAME LOST [ ]
- ALTERATION FOR U/S [ ]
- OTHER [ ] SPECIFY:

PHASE OF FLIGHT DURING WHICH FIRST IRREGULARITY OCCURRED

GROUND

- START-UP [ ]
- MOORING [ ]
- STATIONARY [ ]
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- PARKING [ ]
- BEACHING [ ]

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- LINE-UP [ ]
- RUN [ ]
- LIFTOFF [ ]
- HOVER [ ]

IN-FLIGHT

- CLIMB [ ]
- DESCENT [ ]
- CRUISE [ ]
- LEVEL TURN [ ]
- CLIMBING TURN [ ]
- DESCENDING TURN [ ]
- TRANSLATION [ ]
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- FINAL APPROACH [ ]
- FLARE [ ]
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- TOUCH-DOWN [ ]
- RUN-OUT [ ]
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OTHER

- LOAD-PICKUP [ ]
- LOAD DROP [ ]
- LOAD POSITIONING [ ]

NAVIGATION AND APPROACH AIDS

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IN AIRCRAFT											
ON GROUND											
IN USE BY A/C AT TIME OF OC.											

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Example 2: The aircraft collides with ramp vehicle while taxiing. No page need be completed for navigator or flight engineer if carried on board.

PRE-OCCURRENCE CONDITIONS

MATERIAL (1)

DESCRIPTION OF SYSTEM CONDITIONS Condition: A – NOT DETERMINED S – SERVICEABLE; B – NOT INSTALLED U – UNSERVICEABLE	FUNCTION AFFECTED	COMPONENT/SUB-SYSTEM CAUSING PROBLEM	NATURE OF COMPONENT SUB-SYSTEM FAILURE
A B S U			
CANOPY WINDSCREEN			
DE-ICING-AIRFRAME			
ELECTRICAL SYSTEM - UP TO CONSUMER DEVICE			
EMPENNAGE - FIXED SURFACES			
ENGINES, ANCILLARIES AND CONTROLS			
FLIGHT CONTROLS			
FLAPS-SPOILERS-DIVEBRAKES AND CONTROLS			
FLUIDS AND GASES			
FUEL SYSTEM-UP TO MIXTURE CONTROL DEVICE			
FUSELAGE-STRUCTURE SKIN			
HYDRAULIC SYSTEM & ALL HYDRAULIC DEVICES			
INSTRUMENTS, FLIGHT DATA; DETECTORS, CIRCUITS			
INSTRUMENTS, SYSTEMS DATA; DETECTORS, ETC.			
LIFE SUPPORT SYSTEM; OXYGEN-CABIN PRESS			
LIGHTING-INTERNAL/EXTERNAL			
PANELS/DOORS/WINDOWS/HATCHES/HOUSINGS			
PROPELLER(S) AND CONTROLS			
RADIO COMMUNICATIONS SYSTEM			
RADIO NAVIGATION SYSTEM-AURAL, VIS, AUTO.			
MAIN ROTOR-BLADES, STRUCTURE, DRIVETRAIN			
TAIL ROTOR-BLADES, STRUCTURE, DRIVETRAIN			
LANDING GEAR, WHEELS, TIRES, BRAKES, STRUC.			
WARNING SYSTEMS-VISUAL, AURAL			
WING-STRUCTURE, SKIN			
AUTO PILOT			
Fire retardant system			

BASIC DATA (2)

PRE-OCCURRENCE	I.A.S. 160 KTS	FUEL ON BOARD 1543 IMP. GALS.	CALCULATED ~~96,690~~ LBS	MIXTURE: RICH ☐ LEAN ☐ AUTO ☒	CARB. HEAT POSITION: HOT ☐ PARTIAL ☐ COLD ☒
	C OF G POSITION _____ % MAC		OR 438.62 INS	AFT OF DATUM ☒	FORWARD OF DATUM ☐
	C OF G PERMISSIBLE RANGE _____ % MAC	TO _____ % MAC	OR 414.2 INS	TO 449.2 INS AFT OF DATUM ☒	FORWARD OF DATUM ☐
AT GROUND CONTACT	I.A.S. stalled KTS	POWER SETTING: NONE ☐ PARTIAL ☐ ASYMMETRIC ☐ FULL ☒	LANDING GEAR POS'N: UNLOCKED ☐ UP ☒ FIXED GEAR ☐ DOWN ☐	FLAP POSITION: NO FLAPS ☐ UP ☒ PARTIAL ☐ DOWN ☐	

(1) The intent of this page is to collect as much information as practicable about the condition of aircraft which have become involved in accidents. The conditions described here may or may not have a bearing upon the occurrence but must be conditions which the investigator is able to prove existed at the beginning of the accident sequence.

When completing the page, each item should be checked off in the appropriate square on the left hand side. In the columns opposite any "U" condition which is indicated, the investigator need only select words which are most descriptive of his findings.

Example:

A helicopter on take-off began an uncontrollable turn and the investigation revealed a fractured tail rator drive-shaft. This information would be recorded thus:

			√	Tail Rotor Blades, Structure, Drive	directional control	drive-shaft	fractured

The foregoing example bears directly upon the occurrence. But supposing the investigator also discovered that the VHF was unserviceable, it should also be recorded and might appear thus:

			√	Radio Communi-cations System	VHF	Transmitter	no output

The requirement to record all pre-existing mechanical irregularities arose from our failure in the past to immediately recognize some of these failures and malfunctions as accident cause factors. Consequently, searching out and recording all pre-existing irregularities will permit the re-assessing of many accidents in the light of more recently acquired knowledge.

(2) To assist in assessing the conditions of flight, certain vital data are necessary. The data recorded in this section will probably be based on facts gleaned from examination of the wreckage. For some items such as fuel quantity, some calculations may be necessary to convert amount of fuel on board after the accident to amount of fuel on board at the time of the first irregularity of the flight.

ENVIRONMENT CONDITIONS (1)

AT POINT OF FIRST IRREGULARITY OF FLIGHT IF APPLICABLE (2)

AIRCRAFT CONDITIONS
HEIGHT AGL _____ FT
TERRAIN ELEVATION _____ FT. ASL

CLOUD NONE ☐ UNKNOWN ☐

	HT. AGL	HT. ASL	VERTICAL EXTENT	AMOUNT
LOWEST LAYER	FT	FT	FT	/10
SECOND LAYER	FT	FT	FT	/10

VISIBILITY
AT AIRCRAFT HEIGHT _____ MILES

RESTRICTING PHENOMENA: NONE ☐ SMOKE ☐ CLOUD ☐ BLOWING DUST ☐ BLOWING SNOW ☐ FOG ☐ HAZE ☐ PRECIPITATION ☐ BLOWING SAND ☐ ICE CRYSTALS ☐

PRECIPITATION
NONE ☐ RAIN ☐ DRIZZLE ☐ SNOW ☐ FREEZING DRIZZLE ☐ HAIL ☐ FREEZING RAIN ☐
LIGHT ☐ MODERATE ☐ HEAVY ☐

TEMPERATURE AT AIRCRAFT HEIGHT
°F
°C

WIND UNKNOWN ☐
AT AIRCRAFT HEIGHT
DIRECTION °TRUE
SPEED KTS

ELECTRICAL ACTIVITY
NONE ☐ UNKNOWN ☐ STATIC ☐ ST. ELMOS FIRE ☐ VIOLENT DISCHARGE ☐

SPECIAL HAZARDS
NONE ☐ BIRDS ☐ PARACHUTIST ☐ UNKNOWN ☐ AIRFRAME ICING ☐ TURBULENCE ☐ TALL STRUCTURE ☐ WHITE OUT ☐ AIR TRAFFIC ☐ HOAR FROST ☐ GLASSY WATER ☐ OTHER ☐
SPECIFY:

IN AREA WHERE AIRCRAFT CAME TO REST (3)

CLOUD NONE ☒ UNKNOWN ☐

	BASE HT.	TOP HT.	AMOUNT
LOWEST BASE	FT AGL	FT AGL	SCATTERED ☐ BROKEN ☐ OVERCAST ☐
SECOND LAYER	FT AGL	FT AGL	SCATTERED ☐ BROKEN ☐ OVERCAST ☐

VISIBILITY
AT SURFACE 15+ MILES RVR _____ FT.

RESTRICTING PHENOMENA: NONE ☐ CLOUD ☐ BLOWING DUST ☐ HAZE ☐ PRECIPITATION ☐ BLOWING SAND ☐ FOG ☐ ICE CRYSTALS ☐ BLOWING SNOW ☐ SMOKE ☐

PRECIPITATION
NONE ☒ RAIN ☐ UNKNOWN ☐ FREEZING RAIN ☐ DRIZZLE ☐ SNOW ☐ FREEZING DRIZZLE ☐ HAIL ☐

TEMPERATURE AT GROUND LEVEL
80 °F. UNKNOWN ☐

DEW POINT AT GROUND LEVEL
_____ °F. UNKNOWN ☒

WIND AT GROUND LEVEL UNKNOWN ☐
DIRECTION °MAGNETIC
SPEED Light M.P.H.
CHARACTERISTICS: STEADY ☒ SWINGING ☐ GUSTY ☐ UPWARD COMPONENT ☐ SUBSIDENCE ☐

SPECIAL HAZARDS
NONE ☐ UNKNOWN ☐ HOAR FROST ☐ BIRDS ☐ TURBULENCE ☐ SUN GLARE ☐
WIND SHEAR ☐ AIRFRAME ICING ☐ AIR TRAFFIC ☐ WHITE OUT ☐ GLASSY WATER ☐ OTHER ☒ DESCRIBE: Rising terrain

WEATHER DATA SOURCE
EYEWITNESS ☒ PILOT ☐ MET. OBSERVATIONS ☐ AFTERCAST ☐

LOCALE DESCRIPTION
GENERAL: MOUNTAINS ☒ HILLS ☐ ROLLING ☐ FLAT ☐
SPECIFIC: AERODROME ☐ CLEARING ☐ URBAN AREA ☐ ROAD ☐ SWAMP/MUSKEG ☐ TIDAL WATER ☐ RIVER ☐ BUSH ☒ LAKE ☐

OBSTRUCTIONS TO APPROACH/DEPARTURE
NONE ☐ N.A. TREE(S) ☐ POLELINE ☐ HIGH GROUND ☐ TOWER(S) ☐ BUILDINGS ☐

SURFACE
GENERAL: PAVED ☐ SAND/GRAVEL ☐ SOIL ☒ SNOW ☐ ICE ☐ WATER ☐ ROCK ☒
SPECIFIC: CONCRETE ☐ ASPHALT ☐ COMPACTED ☐ LOOSE ☐ LOW VEGETATION/GRASS ☐ HIGH WAVES ☐ SWELLS ☐
HAZARDS: NONE ☐ WATER FILM ☐ PUDDLES ☐ ICE PATCHES ☐ SLUSH ☐ SOFT ☐ ROUGH ☐ SNOW DRIFTS ☐

OBSTRUCTIONS TO T.O./LDG. RUN
NONE ☐ VEHICLES ☐ DITCHES/HOLES ☐ ANIMALS ☐ ROCKS/DEBRIS ☐ PEDESTRIANS ☐ RIDGES/SANDBARS ☐ N.A. SNOW BANK ☐ POSTS/FENCES ☐ OTHER ☐
SPECIFY:

VITAL DATA
USABLE LENGTH FT
USABLE WIDTH FT
ELEVATION FT
BRAKING ACTION NIL ☐ POOR ☐ FAIR ☐ GOOD ☐

RUNWAY PROFILE LEVEL ☐ UP ☐ DOWN ☐

AVERAGE SLOPE IN DEGREES UP / DN

LIGHT CONDITIONS
BRIGHT DAY ☒ DARK DAY ☐ BRIGHT NIGHT ☐ DARK NIGHT ☐ TWILIGHT ☐ UNKNOWN ☐

000039

(1) Environment conditions refer to all conditions external to the subject aircraft. This includes: all weather conditions, ground or air traffic, obstructions, surface conditions, etc. Since these conditions at the time and place of the first irregularity of flight can be different from the conditions where the aircraft came to rest, the conditions in both instances must be recorded.

(2) The point of the first irregularity of the flight can be best described as that point at which there were definite symptoms that something had gone wrong. The details in this section will help to develop an understanding of the adequacy of the aircraft and the pilot's judgement. If the first irregularity occurred near or on the ground in the immediate vicinity of the place where the aircraft came to rest, this section is to be omitted.

(3) Regardless of the circumstances of the accident, this section will always be completed. As with the previous section, the details will provide some evidence of aircraft adequacy and indicate the degree of skill and judgement applied by the pilot. Conditions in the area where the aircraft came to rest strongly influence the degree of aircraft breakup and the occupant's chances of survival.

Fewell

R

(1) PRE-OCCURRENCE CONDITION - CREW

PERSONAL – COMPLETE A SEPARATE PAGE FOR EACH PERTINENT CREW MEMBER

CREW MEMBER										
	PILOT-IN-COMMAND [X]	2ND PILOT [ ]	FLIGHT ENGINEER [ ]	CABIN ATTENDANT [ ]	OTHER [ ]	SPECIFY:
	NAVIGATOR [ ]	3RD PILOT [ ]	CREWMAN [ ]	FLIGHT OBSERVER [ ]		

TESTS AND FINDINGS (2) QUANTITATIVE RESULTS

NO TESTS DONE [X]

ALCOHOL	BLOOD SUGAR	FOOD POISONING	DRUGS	OTHER TEST (S)
HYPOXIA	CARBON MONOXIDE	EXPLOSIVES RESIDUE	PESTICIDES	

SENSATIONS EXPERIENCED (3)

ADMITTED [ ] OBSERVED [ ] NOT INVESTIGATED [X]

PHYSICAL

NONE [ ]	EXCESSIVE PERSPIRATION [ ]	FATIGUE [ ]
DROWSINESS [ ]	MUSCLE SPASMS CRAMPS [ ]	NAUSEA [ ]
FEVERISHNESS/HOT [ ]	PAIN [ ]	DROWSINESS [ ]
NUMBNESS [ ]	DIARRHOEA [ ]	OTHER:
VISION DIFFICULTIES [ ]	STOMACH CRAMPS [ ]	
COLD/ CHILLS [ ]	DIZZINESS [ ]	

EMOTIONAL

CONFUSION [ ]	DEPRESSION [ ]
ANGER [ ]	ELATION [ ]
IMPATIENCE [ ]	LISTLESSNESS [ ]
NERVOUSNESS ANXIETY/ TENSENESS [ ]	PREOCCUPATION [ ]
	OTHER:
NONE EXPERIENCED [ ]	

MEDICAL HISTORY – LAST ROUTINE MEDICAL

DATE	PLACE	NAME AND/OR NUMBER OF MEDICAL EXAMINER
18 April 1974	Langley, B.C.	Dr. Gillan/ 5270/244

MEDICAL PROFILE	RESTRICTIONS IMPOSED	RECEIVING MEDICAL TREATMENT	SPECIFY
1-1GA-1-1	Prescribed glasses available	YES [ ] NO [X]	

TESTS OF PASSENGER CONDITIONS (4) TO BE COMPLETED ON PILOT-IN-COMMAND PAGE ONLY

CARBON MONOXIDE	FOOD POISONING	EXPLOSIVES RESIDUE	HYPOXIA	NONE PERFORMED
				X

MEDICAL ANALYSIS – REGIONAL MEDICAL OFFICER TO DISCUSS ANY MEDICAL FACTORS WHICH, IN HIS OPINION, WERE INVOLVED IN THE OCCURRENCE.

See attached.

000041

(1) The requirement here is similar to that for material. The background of the man, and some measure of how well he is functioning physiologically and psychologically is vital to an understanding of the occurrence.

(2) Testing in cases where the pilot made some error of omission or commission should be routine. The investigator will have no serious difficulty in cases where the individual was killed. Regulations provide the authority for autopsies. In cases where the person survived, physical examination and testing can be carried out only with his co-operation. Wherever possible, quantitative results will be reported in this section.

(3) Again, a cooperative attitude on the part of the individual will be necessary in order to complete this section. If the individual has a genuine interest in aviation he will not hesitate to provide the necessary data.

(4) Since this section can apply to more than one person, the maximum readings obtained are to be reported here.

Clack

R

(1) PRE-OCCURRENCE CONDITION - CREW

PERSONAL – COMPLETE A SEPARATE PAGE FOR EACH PERTINENT CREW MEMBER

CREW MEMBER										
	PILOT-IN-COMMAND ☐	2ND PILOT ☒	FLIGHT ENGINEER ☐	CABIN ATTENDANT ☐	OTHER ☐ SPECIFY:
	NAVIGATOR ☐	3RD PILOT ☐	CREWMAN ☐	FLIGHT OBSERVER ☐	

TESTS AND FINDINGS (2) QUANTITATIVE RESULTS

NO TESTS DONE ☒

ALCOHOL	BLOOD SUGAR	FOOD POISONING	DRUGS	OTHER TEST (S)
HYPOXIA	CARBON MONOXIDE	EXPLOSIVES RESIDUE	PESTICIDES	

SENSATIONS EXPERIENCED (3)

ADMITTED ☐ OBSERVED ☐ NOT INVESTIGATED ☒

PHYSICAL

NONE ☐	EXCESSIVE PERSPIRATION ☐	FATIGUE ☐
DROWSINESS ☐	MUSCLE SPASMS CRAMPS ☐	NAUSEA ☐
FEVERISHNESS/HOT ☐	PAIN ☐	DROWSINESS ☐
NUMBNESS ☐	DIARRHOEA ☐	OTHER:
VISION DIFFICULTIES ☐	STOMACH CRAMPS ☐	
COLD/CHILLS ☐	DIZZINESS ☐	

EMOTIONAL

CONFUSION ☐	DEPRESSION ☐
ANGER ☐	ELATION ☐
IMPATIENCE ☐	LISTLESSNESS ☐
NERVOUSNESS ANXIETY/TENSENESS ☐	PREOCCUPATION ☐
NONE EXPERIENCED ☐	OTHER:

MEDICAL HISTORY – LAST ROUTINE MEDICAL

DATE	PLACE		NAME AND/OR NUMBER OF MEDICAL EXAMINER
21 March 1974	Lazo, B.C.		Dr. B. D. O'Brian
MEDICAL PROFILE	RESTRICTIONS IMPOSED	RECEIVING MEDICAL TREATMENT	SPECIFY
1-1GA-1-1	Glasses available	YES ☐ NO ☒	

TESTS OF PASSENGER CONDITIONS (4) TO BE COMPLETED ON PILOT-IN-COMMAND PAGE ONLY

CARBON MONOXIDE	FOOD POISONING	EXPLOSIVES RESIDUE	HYPOXIA	NONE PERFORMED
				X

MEDICAL ANALYSIS – REGIONAL MEDICAL OFFICER TO DISCUSS ANY MEDICAL FACTORS WHICH, IN HIS OPINION, WERE INVOLVED IN THE OCCURRENCE.

See attached.

000043

(1) The requirement here is similar to that for material. The background of the man, and some measure of how well he is functioning physiologically and psychologically is vital to an understanding of the occurrence.

(2) Testing in cases where the pilot made some error of omission or commission should be routine. The investigator will have no serious difficulty in cases where the individual was killed. Regulations provide the authority for autopsies. In cases where the person survived, physical examination and testing can be carried out only with his co-operation. Wherever possible, quantitative results will be reported in this section.

(3) Again, a cooperative attitude on the part of the individual will be necessary in order to complete this section. If the individual has a genuine interest in aviation he will not hesitate to provide the necessary data.

(4) Since this section can apply to more than one person, the maximum readings obtained are to be reported here.

HUMAN FACTORS

Douglas DC6B; CF-PWA; 8 miles SSE of Ashcroft, B. C.; August 2, 1974 16:25 P.S.T.; J. F. Fewell, Pilot in Command, and P. G. Clack, Second Pilot.

This was a fire fighting flight. After being informed by "bird dog" aircraft that initial fire bombing run approach was off target, pilot commenced a climbing turn to the left towards rising terrain. After completing about 220° of the turn, aircraft stalled, rolled sharply to the left and nose dropped steeply. Aircraft struck ground and was destroyed by fire and impact. Occupants consisted of two crew, pilot-in-command and second pilot, and one passenger - a mechanic - all fatal. Human remains were extensively burned by fire and charred. All seat and lap belts failed.

The pilot-in-command, J.F. Fewell, was a 55 year old male holder of an Airline Transport Licence. He had a total of 9800 hours - 274 on type. In previous 90 days he had flown 51 hours. Duration of accident flight was one hour. Medical documentation in Pacific Region file dating from April, 1973 to April, 1974 is essentially negative with top medical profile 1-1GA-1-1 - required to have glasses available for near vision.

The second pilot, P. G.Clack, was a 45 year old male holder of an Airline Transport Licence. He had a total of 9500 hours - 118 on type. In previous 90 days he had flown 109 hours. Medical documentation dating from June, 1963 to March, 1974 indicates a consistent top medical profile 1-1GA-1-1 - required to have glasses available for near vision.

Post Mortem examinations were carried out by Dr. Glenn Martin, Pathologist, at the Royal Inland Hospital, Kamloops, B.C. on August 4, 1974.

1. Pilot-in-Command, J.F. Fewell: Remains were extensively burned and fragmented. There was evidence of extensive multiple injuries, including skull fracture. There was no evidence of pre-impact illness.
2. Second Pilot, P. G. Clack: Remains were extensively burned. There was evidence of extensive multiple injuries, including skull fracture and lacerations of internal organs. There was no evidence of pre-impact illness.
3. Passenger, W. G. Samaluk: 20 year old male showing evidence of extensive burning and multiple injuries,

There were no blood samples or other body fluids available for biochemical analysis from any of the vistims due to the extensive burning and charring of remains.

Statements were obtained by the RAMO from the wives of pilot-in-command and second pilot. These statements which are attached, indicate that neither Mr. Fewell or Mr.Clack had any psychological problems and were not on doctors' care or on medication. There was no problem with alcohol. Both were reported to be in a happy frame of mind.

Available documentation does not provide any clues which would indicate that there were any pre-impact medical factors involved in this accident.

Telephone interview byRAMO with Mrs. Fewell (wife of pilot) on August 9, 1974 - one week after aircraft accident.

Mrs. Fewell relates that on August 1, the eve of accident day, Mr. Fewell arrived home at 18:30 - drove to Golf Club, then visited Mr. Kerr, President of Conair Aviation Ltd. Around 20:00 hours Mr. and Mrs. Fewell went to a drive-in restaurant for a chicken dinner - then home, had a cup of tea - then to bed at 23:30.
On accident day Mr. Fewell was up at 07:00 - had breakfast which consisted of 2 toasts, raspberry jam, orange juice and 2 cups of tea. At 08:30 he left for work and was not seen again by his wife. He brought a lunch bucket which consisted of egg sandwich and sandwich of tuna fish or head cheese.
Mrs. Fewell states that her husband had no worries, no problems - financial or domestic. He was in a happy frame of mind. He was in good health - was not on doctor's care and was not on medication. He drank alcohol very occasionally; would sooner drink tea than alcohol.

Telephone interview by RAMO with Mrs. Clack (wife of first officer) on August 9, 1974,

Wife lives in Victoria, B.C. Mr. Clack worked in Abbotsford, where he resided during the week. The last time she saw her husband was on Wednesday, July 31 - 2 days before the accident, when he left for Abbotsford. She has no knowledge of her husband's movement during the 2 days prior to the accident.
Her husband was in good health - was not on doctor's care and was not on any medication. Her husband had no worries or problems - financial or domestic. He loved flying and was in good spirits. He drank alcohol very occasionally and did not smoke.

HUMAN FACTORS (Cont'd)

Prior to impact, pilot-in-command informed "bird dog" aircraft that he was in difficulty but failed to heed bird dog's advice to release his cargo of fire retardant.

Conclusion: Aircraft lost speed in a low left climbing turn - apparently stalled - struck ground with left wing low and nose down.

P. Rinfret Feb 6/75

P. C. E. Rinfret, M.D.
Regional Aviation Medical Officer.

Attachments:
1. Statements from Mrs. Fewell, wife of pilot-in-command, and Mrs. Clack, wife of second pilot.
2. Autopsy reports on the three occupants.

GLENN M. MARTIN, M.D. & ASSOCIATES

GLENN M. MARTIN, M.D., C.M.
W. E. SHEPHERD, M.D., M.C. (PATH)
P. F. STONIER, B.A., M.D.

Clinical Pathology

ROYAL INLAND HOSPITAL
KAMLOOPS, B.C.

AUTOPSY REPORT

NAME FEWELLE: James Frederick AGE 55 AUTOPSY NO. A191/ML144/74

CORONER Mr. W. W. Adam, Coroner of Ashcroft, B.C.

TIME OF DEATH August 3, 1974

TIME OF AUTOPSY August 4th, 1974

FINAL DIAGNOSIS

BURNING

1. Burning

2. Multiple Injuries

FINAL NOTE

This is the case of a 55 year old white male who was apparently killed as a result of an aircraft accident which occurred near Ashcroft, B.C.

At autopsy, extensive burning was noted along with evidence of multiple injuries.

Glenn M. Martin MD

GMM/jjm
13/8/74

Glenn M. Martin, M.D., C.M.

On the order of Mr. W. W. Adam, Coroner, of Ashcroft, British Columbia this autopsy is performed upon portions of a body identified as being James Fredurick Fewelle at approximately 1300 hours on August 4th, 1974 at the Schoening Funeral Home in Kamloops, British Columbia.

CLINICAL SUMMARY

This is the case of a 55 year old white male who was apparently killed as a result of an aircraft accident which occurred near Ashcroft British Columbia.

GROSS DESCRIPTION

EXTERNAL EXAMINATION

The segments of human remains presented for examination at this time consist of the thorax, the abdominal areas and the proximal regions of the extremities along with the lower portion of the head and the neck. No other portions of tissue are identifiable.

There has been extensive thermal injury with removal of all of the superficial skin and underlying soft tissue elements and much of the muscle from the upper arms as well as the upper anterior portion of the chest.

Widespread thermal injury to the skin and underlying elements of the lower extremities is also observed.

As noted above, the upper part of the skull, including the superior portions of the maxilla are absent. There is evidence of fracture.

INTERNAL EXAMINATION

n internal examination is not carried out in this individual.

Some portions of clothing remain in the inferior abdominal area and as a result of partial protection in this region it is possible to identify the body as being of the male sex.

GLENN M. MARTIN, M.D. & ASSOCIATES
Clinical Pathology

GLENN M. MARTIN, M.D., C.M.
W. E. SHEPHERD, M.D., M.C. (PATH)
P. F. STONIER, B.A., M.D.

ROYAL INLAND HOSPITAL
KAMLOOPS, B.C.

AUTOPSY REPORT

NAME CLACK: Philip George AGE 45 AUTOPSY NO. A192/ML145/74

CORONER Mr. W. W. Adam, Coroner, of Ashcroft, B.C.

TIME OF DEATH August 3, 1974

TIME OF AUTOPSY August 4, 1974

FINAL DIAGNOSIS

MULTIPLE INJURIES

1. Fracture of:
   a. skull
   b. humerus, left
   c. radius and ulna, left
   d. femur, right
   e. tibia and fibula, right
2. Laceration of:
   a. skin, widespread - extensive
   b. heart
   c. lung, bilateral
   d. liver
   e. spleen
3. Haemoperitoneum
4. Hemothorax, bilateral
5. Thermal Injury - burning

FINAL NOTE

This is the case of a 45 year old white male who apparently was killed as a result of an aircraft accident near Ashcroft, B.C.

At autopsy, extensive multiple injuries and burning were noted.

GMM/jjm
13/8/74

for Glenn M. Martin, M.D., C.M.

On the order of Mr. W. W. Adams, Coroner, of Ashcroft of B.C. this autopsy is performed upon the body of Mr. Philip George Clack, at approximately 1230 hours on August 4, 1974 at the Schoening Funeral in Kamloops, B.C.

The body is identified by means of a tag on the right arm.

CLINICAL SUMMARY

This is the case of a 45 year old white male who was killed as a result of an aircraft accident near Ashcroft, British Columbia.

GROSS DESCRIPTION

EXTERNAL EXAMINATION

The body is that of a well developed, well nourished white male appearing the stated age of 45 years. There is no evidence of post mortem rigidity.

Study of the head and neck shows the hair to be light reddish brown in color and relatively short. The tissues about the skin of the face are dark brown in color and in areas have been abraded. There is evidence of fracture of the skull as well as fracture of the maxilla on each side, and of the ~~maxilla~~ mandible. Numerous irregular lacerations are present. Evidence of post mortem degenerative change is noted.

External examination of the thorax and abdomen fails to show significant abnormalities apart from some areas of abrasion and the fact that the skin is covered with dark brown dirt like material.

The external genitalia are the site of moderately extensive injuries with some evidence of burning.

Study of the extremities shows fractures of the humerus on the left side and of the radius and ulna on the same side. The skin is dark in color as a result of being covered by dirt and there is some stripping of the external layers suggesting exposure to heat. The body is partly clothed in a long garment which appears to have been burned.

The gross features here, on study of the arms, are those of first degree burning.

Further examination of the extremities shows multiple fractures of the tibia and fibula on the right side as well as gross evidence of a fracture of the mid third of the right femur. There is an extensive laceration of the antero-medial aspect of the right femur. Evidence of superficial burning along with laceration of tissues is also encountered.

The left lower extremity has been extensively damaged with many portions of the lower part absent. The skin and soft tissues over the thigh are absent as are the bulk of the soft tissues and osseus elements in the lower portion of the leg. A fracture of the tibia is encountered. Evidence of laceration of elements is also noted.

INTERNAL EXAMINATION

THORAX

On opening the thoracic cage the heart and lungs appear to be in their normal positions. Excessive fluid material of bloody nature is present in both chest spaces and within the pericardial cavity.

ABDOMEN

On opening the abdominal cavity some hemorrhagic material is noted.

HEART

The heart shows evidence of multiple lacerations. It is otherwise not significantly abnormal.

LUNGS

The lungs are the site of multiple lacerations.

LIVER, AND SPLEEN

The liver and spleen show evidence of multiple lacerations.

GASTRO-INTESTINAL TRACT

Not remarkable.

KIDNEYS

Not remarkable

CRANIUM AND CONTENTS

No detailed examination is undertaken at this time other than that already described.

GLENN M. MARTIN, M.D. & ASSOCIATES
Clinical Pathology

GLENN M. MARTIN, M.D., C.M.
W. E. SHEPHERD, M.D., M.C. (PATH)
P. F. STONIER, B.A., M.D.

ROYAL INLAND HOSPITAL
KAMLOOPS, B.C.

AUTOPSY REPORT

NAME SAMELUK: Wm. G. AGE 20 AUTOPSY NO. A193/ML146/74

CORONER Mr. W. W. Adam, Coroner of Ashcroft, British Columbia

TIME OF DEATH August 3rd, 1974 ?

TIME OF AUTOPSY August 4th, 1974

FINAL DIAGNOSIS

BURNING

1. Burning
2. Multiple Injuries

FINAL NOTE

This is the case of a 20 year old white male who was killed as a result of an aircraft accident near Ashcroft, British Columbia.

At autopsy, extensive burning was noted along with evidence of multiple injuries.

GMM/jjm
13/8/74

Glenn M. Martin, M.D., C.M.

On the order of Mr. W. W. Adam, Corner, of Ashcroft, British Columbia this autopsy was performed upon the body of an adult white male appearing to be well developed and apparently identified as being that of Wm. G. Sameluk. The autopsy was performed at Schoenings Funeral Home.

CLNICAL SUMMARY

This is the case of a 20 year old white male who was killed as a result of an aircraft accidnet near Ashcroft, British Columbia.

GROSS DESCRIPTION

External Examination

The body as examined at this time has been the site of extensive injury due to widespread trauma and burning.

Examination of the head shows absence of the upper portion of the vault of the skull. Some remaining segments of brain are noted. All of the facial features have been destroyed by thermal injury and are charred and black in color. The neck has been extensively burned as well.

Study of the thorax shows multiple injuries involving the ribs. There is absence of all of the skin and much of the subcutaneous soft tissues as a result of burning. Some muscular elements remain which are charred and black in color. Evidence of widespread injury with laceration and partial destruction of organs is encountered.

The abdomen shows anteriorly extensive thermal injury and partial absence of segments of the muscular components of the wall. The underlying tissues are the site of laceration.

The external genitalia are almost completely destroyed as the result of burning.

Study of the extremities shows extensive thermal injury with almost complete destruction of the soft tissues of the left arm and extensive destruction of skin and soft tissues of the right arm. The lower portion of the left arm is present although multiple fractures are noted. A fracture of the lower segment of the right arm is noted and complete absence of the lower forearm and hand is observed.

Extemnive thermal injury of the soft tissues of the thighs is noted. There is a fracture of the lower one third of the left femur and absence of tissues inferior to this point. An extensive fracture of the tibia and fibula on the right side is observed. Remnants of the right foot are present although extensive thermal injury is present throughout.

OCCURRENCE DESCRIPTION (1)

(R)

FIRST IRREGULARITY OF FLIGHT (2)

NARRATE THE EVENT(S) WHICH FIRST INDICATED THAT THE FLIGHT WAS NOT PROCEEDING AS DESIRED.

After overshooting from a fire bombing run, the pilot turned to the left and flew towards rising terrain. During the turn the pilot advised the "bird dog" that he was in trouble and losing airspeed.

RESULTANT ACTION(S) • REACTION(S) (3)

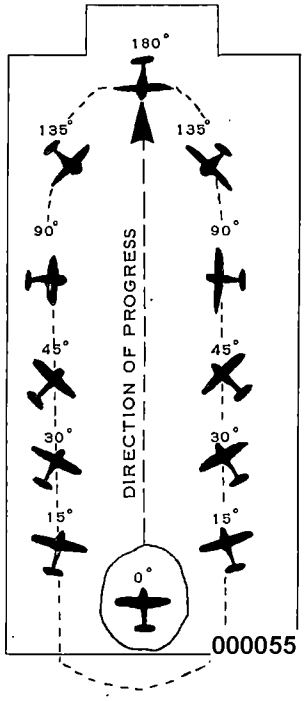
NARRATE ALL THE ACTIONS OF THE PILOT; ALL THE REACTIONS OF THE AIRCRAFT TO PILOT DEMANDS; ALL INTERACTIONS OF PILOT, AIRCRAFT, AND ENVIRONMENT.

A few seconds later the aircraft was observed to roll sharply to the left and the nose dropped to a steep angle down.

TERMINAL EVENT (4)

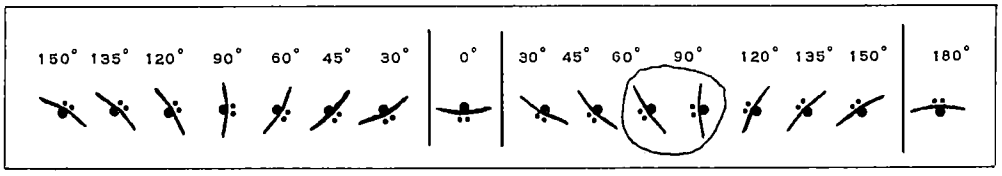
DESCRIBE THE MOVEMENTS OF THE AIRCRAFT FROM THE MOMENT BEYOND WHICH CORRECTIVE ACTION COULD NOT BE EXPECTED TO RETRIEVE THE SITUATION, OR FROM TOUCHDOWN PRECEDING A LANDING UNDER EMERGENCY CIRCUMSTANCES.

The aircraft struck the ground and was destroyed by impact and fire.

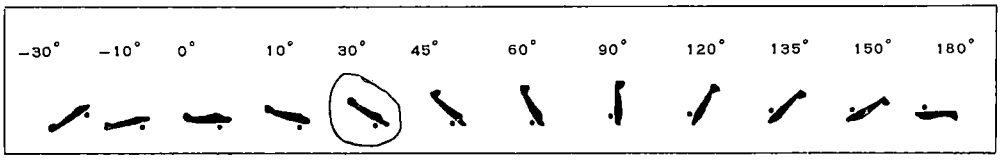


- CIRCLE THE SILHOUETTES WHICH MOST CLOSELY DESCRIBE ANGLE OF GROUND CONTACT
- DRAW A SQUARE AROUND SILHOUETTES TO DESCRIBE ATTITUDE OF AIRCRAFT AT REST

FRONT ELEVATION ▶



STARBOARD ELEVATION ▶



23-0003
(8-69)

000055

(1) The description of the occurrence is divided into three areas so that the sequence of events is more readily understood. If the paragraph headings are rigidly applied there should be no difficulty in defining the limits of each of the three areas of interest.

(2) The first irregularity of flight is the initial event in the sequence leading up to the termination of the occurrence. In some instances it may be separated by considerable time or distance from the terminal event, such as the case in which a pilot becomes lost and continues the flight until fuel is exhausted. Or in other instances may be closely related to the terminal event as in a swing preceding a ground loop following a normal approach.

(3) In this paragraph, it is essential that the pilot's response to the first irregularity be clearly described. All subsequent actions and reactions must be included, up to the point where any corrective action is obviously futile.

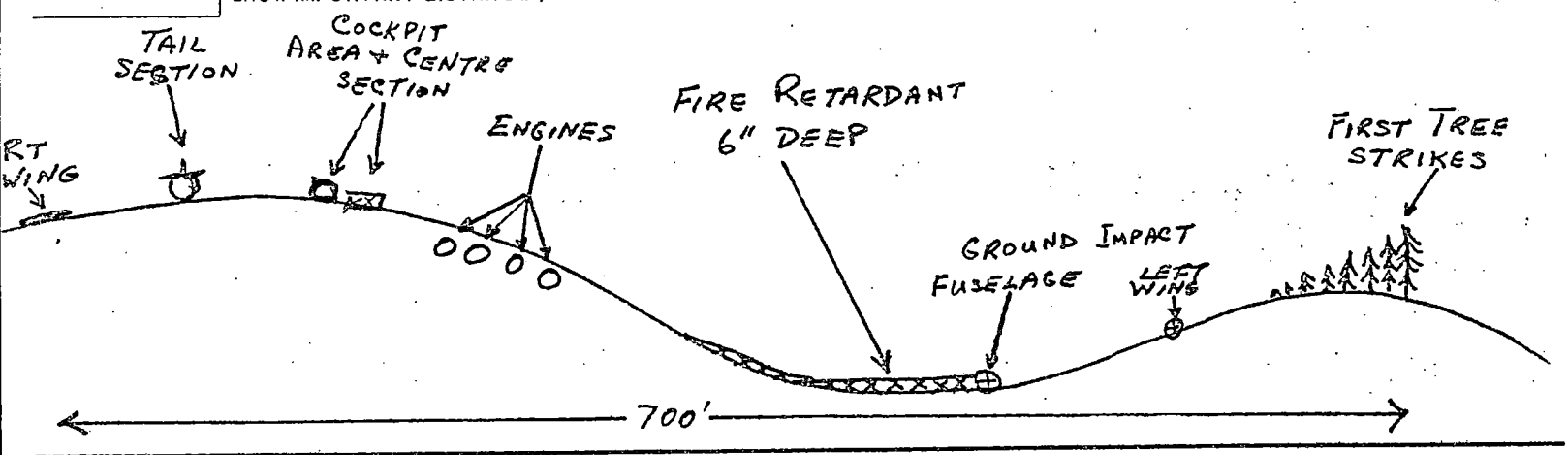
(4) A description of the terminal event is useful mainly in understanding the reason for the extent of damage to the aircraft or the seriousness of the injuries. The position of the aircraft at rest, of course influences the problem of evacuating the occupants.

ELEVATION VIEW OF LOCALE (1)

SKETCH IN SIGNIFICANT RUNWAYS, OBSTRUCTIONS, FLIGHT PATH, ETC.

(R)

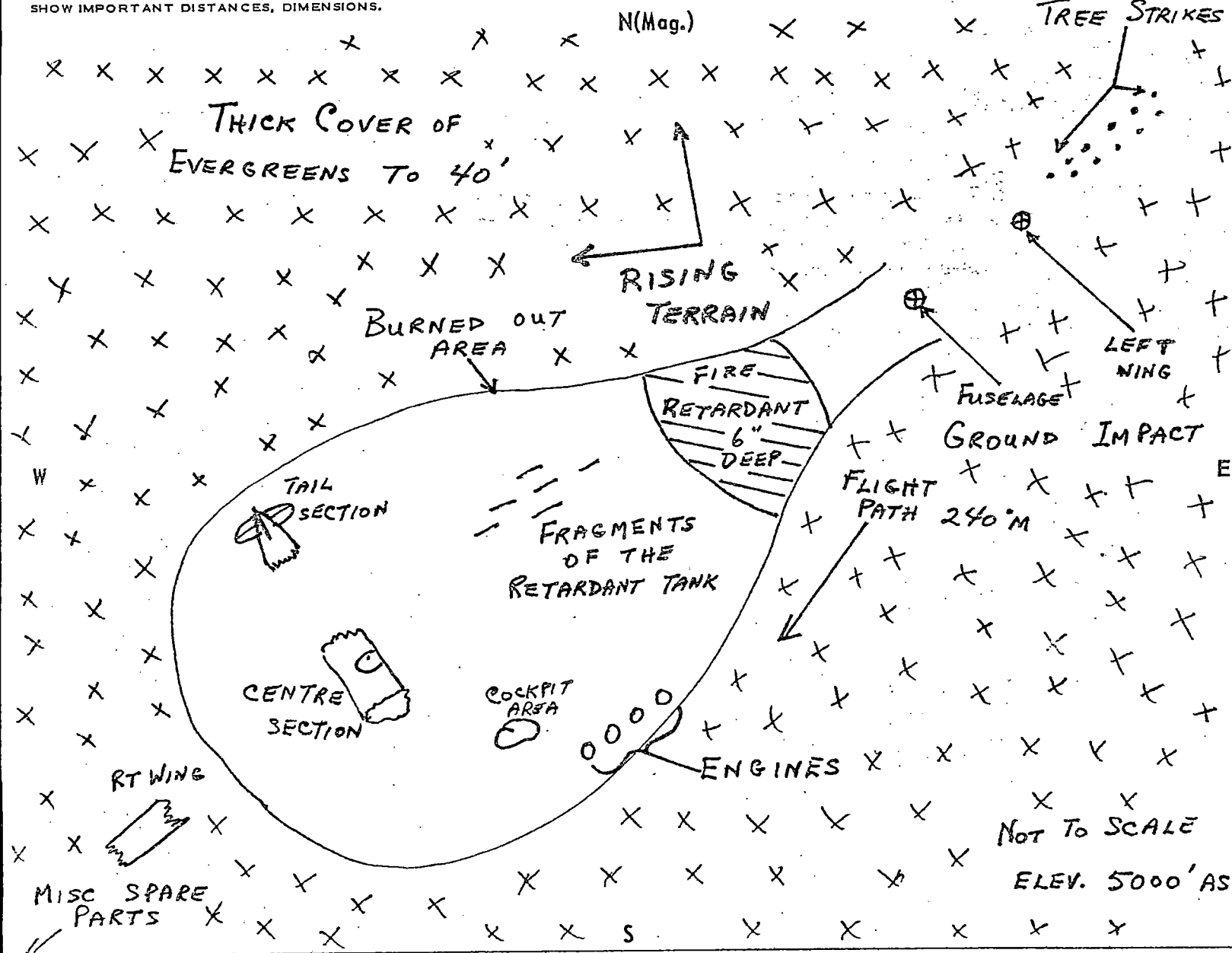
SHOW IMPORTANT DISTANCES, DIMENSIONS.



PLAN VIEW OF LOCALE (2)

SKETCH IN SIGNIFICANT LANDING AREA, OBSTRUCTIONS, AIRCRAFT PATH, ETC.

SHOW IMPORTANT DISTANCES, DIMENSIONS.



POST OCCURRENCE CONDITIONS

(R)

PERSONNEL

CREW	FATAL	SERIOUS	MINOR	UNINJURED	NOT PERTINENT	DIED AFTER 30 DAYS
PILOT-IN-COMMAND	X					
SECOND PILOT	X					
THIRD PILOT						
FLIGHT ENGINEER						
ALL OTHER CREW – NUMBER						
PASSENGER(S) – NUMBER	one					
PERSONS OUTSIDE A/C						

INJURY PATTERNS	HEAD	CHEST	LOWER TORSO	SPINE	ARM(S)	HAND(S)	LEG(S)	FOOT FEET	INTERNAL	MASSIVE
CREW/NO. OF PERSONS										two
PASS./NO. OF PERSONS										one
PERSONS OUTSIDE										

EVENT CAUSING INJURY NO. OF PERSONS INVOLVED	CREW	PASSENGERS	PERSONS OUTSIDE A/C
CONTACT WITH PROPELLER/INTAKE/EXHAUST			
FELL FROM AIRCRAFT (OR THROWN)			
STRUCK INTERIOR OF AIRCRAFT AT IMPACT			
STRUCK INTERIOR OF AIRCRAFT IN TURBULENCE			
STRUCK BY FLYING OBJECT INSIDE AIRCRAFT			
STRUCK BY AIRCRAFT			
BURNS ONLY			
BURNS FOLLOWING OTHER INJURIES			
CRUSHED IN WRECKAGE	two	one	
PULLED UNDERWATER			
CAME IN CONTACT WITH MAIN ROTOR			
CONTACT WITH TAIL ROTOR			
OTHER (SPECIFY)			

AIRCRAFT

DEGREE OF DAMAGE
- NONE ☐
- UNKNOWN ☐
- MINOR ☐
- SUBSTANTIAL ☐
- DESTROYED ☒

DAMAGE PATTERN
- ENGINE ☐
- PROPELLER ☐
- NONE ☐
- AFT FUSELAGE ☐
- COCKPIT ☐
- EMPENNAGE ☐
- NACELLE(S) ☐
- NOSE ☐
- WING(S) ☐
- UNDERCARRIAGE ☐
- MAIN ROTOR ☐
- TAIL ROTOR ☐
- TOTAL ☒

EVENT CAUSING DAMAGE
- AIRBORNE COLLISION ☐
- AIRBORNE COLLISION AND GROUND IMPACT ☒
- COLLISION ON GROUND/WATER ☐
- EXPLOSION ☐
- FIRE ☒
- AERIAL BREAK UP ☐
- SUBMERGENCE ☐
- GROUND/WATER IMPACT ☐
- OTHER ☐

SPECIFY:

OBJECT OF AIR COLLISION
- AIRCRAFT ☐
- BIRD(S) ☐
- BUILDING ☐
- DETACHED PORTION OF AIRCRAFT ☐
- POLE(S)/POST(S) ☐
- TOWER ☐
- TREE(S) ☒
- WIRE(S) ☐
- OTHER AIRBORNE OBJECT ☐
- OTHER ☐

SPECIFY:

OBJECT OF GROUND COLLISION
- AIRCRAFT ☐ BUILDING ☐
- DETACHED PORTION OF A/C ☐ FENCE(S) ☐
- PEDESTRIAN ☐ TREE(S) ☐
- POST/WIRE ☐ VEHICLE ☐
- DITCH ☐ RIDGE ☐
- SNOW BANK ☐ OTHER ☐

SPECIFY:

ENVIRONMENT

PROPERTY DAMAGE
- NONE ☒
- MINOR ☐
- EXTENSIVE ☐

PROPERTY DAMAGED

RESIDENCE ☐	VEHICLE ☐	BARN/STORAGE ☐	FENCE ☐
PUBLIC BUILDING ☐	AIRFIELD FACILITY ☐	FARM CROP ☐	OTHER ☐
PUBLIC UTILITIES INSTALLATION ☐	DOMESTIC ANIMAL(S) ☐	AIRCRAFT ☐	

SPECIFY:

000058

LIFE - PROTECTION DATA

(R)

CRASH PROTECTION

DEVICES

		SEAT(S)	SEAT ANCHORS (SETS)	LAP BELT(S)	SHOULDER HARNESS	BAGGAGE RESTRAINTS
CREW	NUMBER INSTALLED	two		two	two	U/K
	NUMBER USED	two		two	unknown	U/K
	NUMBER FAILED IN CRASH	two	two	two	unknown	U/K
PASSENGERS	NUMBER INSTALLED	two		two	none	
	NUMBER USED	one		one	none	
	NUMBER FAILED IN CRASH	one	one	one	none	

CRASH EVACUATION

AIRCRAFT EQUIPMENT

	ESCAPE SLIDE	ESCAPE LADDER/ROPE	DINGHY	NORMAL EXITS	ESCAPE HATCHES	PORTABLE EXTINGUISHER
NUMBER INSTALLED	0	0	0	2	4	1
NUMBER USED				0	0	0
NUMBER FAILED IMPROPER OPERATION				0	0	0
NUMBER FAILED IN USE				0	0	0

REMARKS AND RECOMMENDATIONS:

None

PERSONAL SAFETY EQUIPMENT

DEVICES	OXYGEN MASK	CRASH HELMET	LIFE VEST/INDIVIDUAL FLOTATION DEVICE	FILTER MASK	PARACHUTE	IMMERSION SUIT
NUMBER BEING USED	0					
NUMBER FAILED DUE TO IMPROPER USE	0					
NUMBER FAILED IN OPERATION	0					

REMARKS AND RECOMMENDATIONS:

None

SEARCH AND RESCUE

PERTINENT ☐ NOT PERTINENT ☒

SEARCH SUCCESS

BY

NONE ☐ PROVINCIAL POLICE ☐
SAR ORGANIZATION ☐ MUNICIPAL POLICE ☐
PRIVATE AGENCY ☐ D.O.T. ☐
COMMERCIAL AGENCY ☐ OTHER ☐
R.C.M.P. ☐ SPECIFY:

DURATION

LESS THAN 4 HRS ☐
4 HRS. BUT LESS THAN 12 ☐
12 HRS. BUT LESS THAN 24 ☐
1 DAY BUT LESS THAN 2 ☐
2 DAYS BUT LESS THAN 4 ☐
4 DAYS BUT LESS THAN 7 ☐
7 DAYS BUT LESS THAN 14 ☐
14 DAYS OR MORE ☐

TYPE

GROUND ☐
AIR ☐
BOAT ☐
COMBINED AIR/BOAT ☐
COMBINED GROUND/AIR ☐
ALL ☐

LOCATING METHOD

L/F RADIO ☐ VISUAL-SMOKE/FIRE ☐
SARAH ☐ VISUAL-WRECKAGE ☐
AUTOMATIC CPI ☐ VISUAL PYROTECHNICS ☐
VHF/UHF HOMING ☐ VISUAL OTHER ☐
VISUAL-MIRROR ☐ OTHER ☐
NOT SUCCESSFUL ☐
IF OTHER SPECIFY ▶

SURVIVAL

PERTINENT ☐ NOT PERTINENT ☒

DEVICES

	TENT	SLEEPING BAG	FIRST AID KIT	EMERGENCY RATIONS	WEAPON	FISHING GEAR	FIRE SOURCE	PROTECTIVE CLOTHING
AVAILABLE-NOT USED	☐	☐	☐	☐	☐	☐	☐	☐
NOT AVAILABLE	☐	☐	☐	☐	☐	☐	☐	☐
FAILED-IMPROPER USE	☐	☐	☐	☐	☐	☐	☐	☐
NOT SATISFACTORY	☐	☐	☐	☐	☐	☐	☐	☐

REMARKS AND RECOMMENDATIONS: None

000059

R

ANALYSIS

INVESTIGATOR'S APPRAISAL (1)

INDICATE WHICH ITEMS OF THE RECORDED FACTUAL DATA, IN THE VIEW OF THE INVESTIGATOR, CAUSED THE ACCIDENT. DESCRIBE IN NARRATIVE HOW THE ITEMS INTERACTED TO CAUSE THE ACCIDENT.

The flight departed from the Abbotsford Airport at 14:39 P.S.T. on the 2nd of August 1974. On board was the captain, first officer and a mechanic. The aircraft was loaded with 25,000 lbs. of fire retardant and 3,300 lbs. of spare parts for the aircraft. The purpose of the flight was to establish their operational base at Kamloops, B.C., and to drop a load of retardant on a fire enroute. There was some confusion as to the location of the fire and as a result they flew to the vicinity of Merritt, B.C. They were directed to the fire by radio communication from the "bird dog." At about 16:20 P.S.T. they arrived in the area of the fire and were briefed by the bird dog as to the type of drop that was required, the terrain, wind and exit from the drop area. The captain commenced his run and reported on final with the doors armed. As he approached the fire area, the bird dog advised that he was not on the desired line and that he might as well go around. The tanker began to climb and turned to the left towards rising terrain. After about 180° of turn he called the bird dog and said, "I'm in trouble, we're losing airspeed." He was observed to be in a nose high attitude at this time. Shortly thereafter the aircraft stalled and crashed into a wooded slope. The aircraft was destroyed by impact and fire.

The weather was good, clear skies, light wind with the temperature about 80°F. There was some smoke in the area but it did not reduce the visibility appreciably. The high temperature and altitude would degrade the aircraft

(see attached pages)

RECOMMENDATIONS (2)

None.

FOR REGIONAL USE

CAUSES FINDINGS

1. The heavily loaded aircraft was flown towards rising terrain which it was unable to outclimb.
2. The pilot failed to drop the load of fire retardant when he realized he was losing airspeed.

000060

ANALYSIS (cont-d)

performance but the pilot should have been aware of this and conducted his flight accordingly. The entire slope was exposed to the sun and with the light winds, subsidance would not likely be present. The weather is not considered to be a contributory factor.

The captain, James Fredrick Fewell, held an airline transport pilot licence valid for aeroplanes single and multi-engine land and sea, with endorsement for the Douglas A-26, DC-3, DC-6, Canadair DC4M, Bristol 170 and Grumman TBM. He had successfully undergone a medical examination on 18 April 1974. His medical profile was 1-1GA-1-1. He had successfully completed a pilot proficiency and instrument flight test with a M.O.T. inspector on 26 April 1974. He was assessed as a smooth and accurate pilot who's performance was assessed as of a very good standard. He had participated in the DC-6B fire bombing program from its inception with the company and had carried out all the flight tests when the aircraft was being evaluated as a water bomber. He is therefore considered suitably trained and qualified to undertake this flight.

The first officer, Philip George Clack, held an airline transport pilot licence valid for aeroplanes single and multi-engine land, with endorsements for the Douglas DC-3, DC-6 and Canadair CL-44D4. He had successfully completed a medical examination on 21 March 1974. His medical profile was assessed as 1-1GA-1-1. He had successfully completed his initial proficiency check on the Douglas DC-6 for the aircraft type rating. He is considered to be suitably trained and qualified to act as first officer on the flight.

The passenger, William G. Sameluk, was an aircraft mechanic and was aboard for transportation to Kamloops, B.C. where an operating base for the DC-6B was to be established. He had no duties to perform during the flight.

The accident area was examined from the air and several runs were made in an attempt to retrace the flight path of the water bomber. A run was made across the fire area on a heading of 100° and a photograph taken of the terrain directly ahead (see slide #3). The overshoot could have been carried out in this wide valley and the return to the fire area in a right hand circuit. The pilot chose instead to turn left and fly towards rising terrain. Why the pilot chose this course of action could not be determined as the view from the fire area clearly showed the rising terrain (see slide #2). It is possible that he felt that he could outclimb the slope and by doing a left hand circuit he would have the fire in sight more readily. After turning through about 90°, he would be compelled to continue the turn no matter what happened and it would take nearly another 90° of turn to be flying away from the slope.

It is probable that the pilot was concentrating on flying the aircraft and planning his next approach that he did not notice the low airspeed until just before the stall. Faced with a wide area of sloping terrain, his horizon referrence would be deceptive and there would be a risk of aligning the aircraft with the slope. He would not be aware of the critical situation until it was too late. When he noticed the low airspeed and advised the bird dog, he was on the verge of stalling. Why he did not dump the load and wasted precious seconds on radio conversation is not known. It has been suggested that professional pride may have caused him to delay dropping the load or that he was not aware of

ANALYSIS (cont-d)

the critical situation until too late. He may have felt that he would be able to clear the crest of the ridge ahead. The terrain rises for about another hundred feet beyond the accident scene, then sloped down towards the Thompson River.

The drop system has three independant sources of air pressure to operate the doors, two normal and one emergency supply. The emergency system is isolated so that in the event of loss of normal system air pressure, the load could be dropped with the emergency air supply. In the unlikely event of loss of pressure from all systems, the load could not be dumped. There is, however, adequate warning of loss of air pressure by warning lights on the control panel. The system had been armed on the aborted run and would not normally be turned off in the air. In any case, the emergency drop system operates independently and does not require arming. When the red lever on the centre of the glare shield is moved, all doors open and the load is dropped instantaneously.

Examination of the wreckage at the scene did not reveal any failure, or malfunction of engine, airframe or controls. The destruction due to impact and fire was so severe that very little information could be obtained. Damage to the propellor blades indicated that all engines were producing substantial power at impact. The severity of the burning in the cockpit area was such that none of the components of the fire retardant tank control system could be identified. The likelihood of a complete system failure is considered to be remote. Two of the door actuating cylinders were located. One was too badly mutilated to be useful, the other indicated that doors were closed at impact. All of the fire retardant was found in the area where the first major impact occurred. No retardant was found in the area of the first tree strikes or before, indicating the load had not been released.

It is therefore concluded that the pilot was occupied with the flight and did not become aware of the problem until a few seconds before impact. Professional pride may have contributed to failure to drop the load. It is felt that if the pilot had dropped the load when he first became aware of losing airspeed, he may have been able to climb over the crest of the ridge to safety.

Appendix 1: Police Report
Appendix 2: Maps & Charts
Appendix 3: Witnesses' Statements
Appendix 4: Slides
Appendix 5: Weight & Balance Report
Appendix 6: ATC Accident Report
Appendix 7: Conair Training Information
Appendix 8: Schematic Fire Retardant Air Pressure System

(R)

AFFIRMATION OF THE CONTENT OF THIS REPORT

INVESTIGATOR(S) SIGNATURE(S)

C. Leyland

REGIONAL SUPERINTENDENT COMMENTS (1)

C. Leyland — REGIONAL SUPT. ACCIDENT INVESTIGATION — 5 Mar 75 DATE

REGIONAL CONTROLLER, CIVIL AVIATION — 6.3.75 DATE

DOCUMENTS SUPPORTING THE DETAILS OF THIS REPORT AND APPENDED HERETO

POLICE REPORT ☒ 1.	MEDICAL REPORT ☒ inc.	MATERIAL LABORATORY REPORT ☐	WEATHER INFORMATION ☐
CRIME LABORATORY REPORT ☐	PATHOLOGIST'S REPORT ☐	PILOT'S STATEMENT (S) ☐	ATC TAPE/TRANSCRIPTION ☐
CORONER'S REPORT ☐	CASUALTY LIST ☐	WITNESSES' STATEMENT (S) ☒ 3.	TECHNICAL REPORTS ☐
MAPS AND CHARTS ☒ 2.	PASSENGER STATEMENTS ☐	OTHER ☒ SPECIFY:	4. Slides 5. Wt.& Bal. 6. ATC Report 7. Conair Train. 8. Fire Ret.Air Pressure System

ADMINISTRATIVE DETAIL

INVESTIGATION	ELAPSED TIME FROM ACCIDENT TO INVESTIGATOR'S ARRIVAL ON THE SCENE: 14 HRS.	ELAPSED TIME FROM ACCIDENT TO RECEIPT OF NOTIFICATION BY REGION: 0:25 HRS.	
EXPENDITURES	CASH: COST OF FARES, CHARTERS, ETC.: $	ALL OTHER CASH EXPENSES: $	TOTAL CASH EXPENDITURES: $
	MAN-HOURS: TIME SPENT ON THIS CASE BY ACCIDENT INVESTIGATOR(S) INCLUDING TIME. HOURS: 150		

H.Q. USE

CAUSE FACTORS ASSIGNED

000063

(1) The Regional Superintendent is invited to comment upon accident investigation procedures, techniques, etc. If he believes some addition or deletion to investigation regulations or policies should be made, suggested changes should be outlined here.

Appendix 1
C 237
REV. 10-68

RCMP
GRC 6880

OTHER FILE REFERENCES: REF. AUTRES DOSSIERS:	DIVISION	DATE	RCMP FILE REFERENCES: REF. DOSSIERS GRC:
PCR: 8-8-74	"E"	16 OCT 74	P40069
	SUB-DIVISION - SOUS-DIVISION: Kamloops		74E-507-17 74-500-55
	DETACHMENT - DÉTACHEMENT: Ashcroft		

RE: OBJET: James Fredrick FEWELLE - Sudden Death "et al" Plane Crash nr. Ashcroft, B.C. 2 AUG 74 (ASHCROFT DETACHMENT CASE) UNORG

CF-PWA

"et al" Phillip George CLACK
William G. SAMELUK

1. With reference to the above accident, an inquest was ordered by Coroner W.W. ADAM and was held on the 11 SEP 74 at 7:30 PM at the Ashcroft Provincial Court House. The findings of the Jury were as follows:

"We, the Jury, having been duly empanelled find that William SAMELUK, James FEWELLE, and Phillip CLACK, age respectively twenty, fifty-five, and forty-five died on the second day of August A.D. 1974 as the result of an airplane crash. We find that these deaths were accidental and unnatural.

We attache no blame to any person in connection with these deaths.

We recommend that only persons with duties to perform be carried on water bombers when actually sewing on fires."

2. Attached find an additional statement received after the last report from Roland MAXSON. Also find attached photographs taken by myself at the scene with the appropriate description typed on the back of each. All were entered as evidence at the inquest.

3. Final Diagnosis of Autopsy reports as submitted by Dr. Glenn M. MARTIN, Pathologist, Kamloops, B.C. are attached. Due to the extensive burning of the bodies, blood samples were not taken. Department of Transport reports submitted by Syl DZUS, Aircraft Accident Investigator is also attached. The findings of the DOT and the pathologist were also entered into evidence at the inquest.

4. This office and the coroner were in agreement with the verdict of the Jury. Copy of the report forwarded to Syl DZUS, Ministry of Transport, 739 West Georgia St., Vancouver, B.C.

CONCLUDED HERE

Cst.
(B.C.J. LUNDGREN) 27604

(JBH) Sgt.
i/c Det.

7530-21-029-4527

ROYAL CANADIAN MOUNTED POLICE - GENDARMERIE ROYALE DU CANADA

RCMP GRC 6880

5002-P40059

REV. 1-4-66

OTHER FILE REFERENCES: REF. AUTRES DOSSIERS:	DIVISION	DATE	RCMP FILE REFERENCES: REF. DOSSIERS GRC:
PCR: FIRST HERE	"E"	8-8-74	74E-507-17
	SUB-DIVISION - SOUS-DIVISION: Kamloops		74-500-55
	DETACHMENT - DÉTACHEMENT: Ashcroft		

RE: OBJET: James Fredrick FEWELLE (B. 24 MAR 19) - Sudden Death 'et al' Plane Crash nr. Ashcroft, B.C. 2 AUG 74 (ASHCROFT DETACHMENT CASE) UNORG

"Et al" Philip George CLACK (B. 09 JAN 29)
William G. SAMELUK (B. 15 MAY 54)

2 AUG 74

1. At 4:40 P.M., a phone call was received at Kamloops Subdivision from the Forestry Service, Kamloops, B.C., advising that a plane had crashed while water bombing a fire in the Highland Valley eighteen (18) miles south east of Ashcroft. They received the information via Bird Dog #6 plane, who had been directing the flight pattern of the downed plane for the purpose of water bombing a forest fire. The only information they had available, other than the location was that there were at least two (2) men aboard.

2. Cst. NELSON, Ashcroft H.P., Cst. L. LARSON, Logan Lake Det. and myself attended in the area of the scene. It was learned from the forestry service in Ashcroft that the location of crash was approximately two (2) miles east of the Highland Valley Rd., and it appeared that the only feasible access would be by helicopter. The area was over 5000 feet in elevation and was heavily wooded. Foresty Department advised that their planes fighting two other forest fires in the immediate area indicated that another fire had started as the result of the crash and the immediate explosion on impact and it appeared that any thought of immediate access to the scene would be just about impossible.

3. We were soon advised that ConAir Aviation Ltd., Box 220, Abbotsford, B.C., the owner of the downed plane, had dispatched a helicopter from Kamloops with one of their employees to the scene. Also information was received that the crew from Bird Dog #6 had returned to their base station in Kamloops, B.C. Wayne ZORN, the employee, of the Stockman's Hotel, Kamloops, B.C., attended the scene and found the plane and surrounding area to either be completely engulfed in flames or hot from earlier burning. The crash had started a minor forest fire and he advised that it would be impossible till the following day to attend at the scene. At this point the helicopter picked up us three (3) members and along with ZORN and the pilot, we flew over the scene several times, taking photographs in the process. It was quite apparent there could be no survivors as the plane had nosed into the ground and was completely mutilated by the crash. Only a piece of the tail remained while the remainder of the debris had been totally engulfed by fire.

.....2

AUG 13 1974

7530-21-029-4527

4. At this point I returned to the office and contacted Mr. Les KERR, president of ConAir Aviation Ltd., who advised that they were the owner of the downed plane and related to me the following information. He advised me that the crew consisted as follows:

James Fredrick FEWELLE (Captain) B. 24 MAR 19 of 32687 Huntington Rd., Abbotsford, B.C.
Philip George CLACK (1st Officer) B. 09 JAN 29 of 1518 Edgemont Rd., Victoria, B.C.
William G. SAMELUK (Crewman) B. 15 MAY 54 of 97 Rupert Street, Thunderbay, Ontario

KERR advised that the crew of three (3) left ConAir Aviation, Abbotsford at approximately 3:40 P.M. with the destination of the reported fire in the Highland Valley. The orders were to water bomb the fire and stated the plane was carrying a full load. He stated that the plane was a DC 6-B, Canadian Reg. # CFP-WA, Water bomber #41. Further to the crew, KERR advised that all next of kin had been advised of the seriousness of the occurrence by himself personally, however had yet to be advised of death. After concurring with Cpl. R.J. AIRD, it was felt that death in this case could be presumed and next of kin could be notified by KERR as noted. At 8:55 P.M. KERR called back stating that all NOK had been notified personally by himself.

5. At this point I was contacted by Mr. Syl DZUS of the Ministry of Transport, Aircraft Accident Investigations Section. He advised me that he would charter a helicopter for the following A.M. and would pick myself up in Ashcroft and then attend to the scene. Ashcroft Telex ASH2/340 was forwarded to Kamloops Subdivision and "E" Division for their information and to Crime Index Section, Vancouver, to advise of any criminal record.

6. Coroner W.W. ADAM was then contacted and advised of the circumstances to date and was given as much information as possible. He requested that I keep him in touch as to the recovery of the bodies, etc. and once recovered they were to be removed to Schoenings Funeral Home, 513 Seymour St., Kamloops, B.C. for the purpose of the Post Mortem.

7. KERR called back to myself and stated he had learned that the two men in Bird Dog #6 were as follows:

Barry MARSDEN of 34805 Arden Dr., Abbotsford, B.C.
Dan Alexander MORRISON of 1177 Windbreak St., Kamloops, B.C.

.....Three

7.(Cont). Kamloops Subdivision were contacted and obtained statements from both men relating to the crash. They advised that starting at approximately 4:10 P.M. they picked up radio contact with the DC6-B from Abbotsford. They confirmed their position and approximately ten minutes later flew over the fire location. Bird Dog 6 then gave their instructions and flew their flight path from north west to south east. The DC6-B acknowledged the run and type of drop requested and proceeded over the target. Approaching the target they were 15 to 20 degrees off course and it was requested to hold its load and to turn around and line up again and make the drop properly. In the turn the DC6-B advised in a calm manner "We're experiencing a little difficulty and losing air speed". The Bird Dog then advised them to drop their load, however the DC6-B then came back "We're going in". The DC6-B crashed into the trees, exploding immediately upon impact. This was immediately reported to B.C. Forest Service of Kamloops, by the Bird Dog 6 crew.

8. Three other witnesses contacted this office stating they had observed the plane from the ground and had watched it as it crashed. They were:

s.19(1) [redacted]

Reference should be made to their statements where [redacted] both witnessed the crash but could see nothing preceeding the crash which would have indicated any problems. However, [redacted] advised that despite not hearing a distinct sound, he feels there was a definite explosion preceeding the crash when the plane was roughly 1500 feet above tree level. [redacted] stated he saw a red streak come out of the rear of the plane. The plane then met the red streak and immediately mushroomed into a cloud of smoke. He stated the plane began its immediate descent after the explosion with bits and pieces falling with the plane. It was the personal opinion of [redacted] that the explosion contributed to the crash. He stated he was approximately 1½ - 2 miles from the plane and had a clear view of the plane at all times.

3 AUG 74

9. Okanagan Helicopter Services attended this A.M. and picked up [redacted] of M.O.T. and [redacted], of Brouwer & Company Insurance Adjusters Ltd., Vancouver, B.C., and then to Ashcroft where they picked myself up. Attendance was made to the scene where an open area approximately one half mile from the scene of the crash was located. After walking to the scene it was found that burning was quite prevelant around the scene, however the main part of the wreckage had cooled down and I was able to sift through the wreckage. After some difficulty and because of the intense fire the day previous at the scene, the bodies were finally located. Later I returned to Ashcroft and picked

9. (Cont) up three body bags and commandeered [redacted] of the Ashcroft Funeral Home, Ashcroft, B.C. to assist in the recovery of the bodies. All three bodies were located within 20 - 30 feet of each other with two of them right in the middle of the burnt debris. Body #1 was of CLACK and all of his identification was found on his person intact. His body was completely mangled and smashed, however only his lower portion was burnt with the remainder blistered from the intense heat from the crash area. Body #2 was completely destroyed from the fire and only the main limbs and some internal organs remained. There was no identification whatsoever on him. Body #3 was in the same burnt state, however a ring of keys was located stuck to the charred body. These keys were later identified through KERR as positively belonging to FEWELLE. Body #2 was then marked as SAMELUK.

10. At approximately 4:30 P.M., the bodies were flown in from the scene to the Royal Inland Hospital, Kamloops, B.C. where at 5:00 P.M. the bodies were examined by Dr. G. PARGHI and death was officially pronounced. Schoenings Funeral Home was then advised as to the location of the bodies and were making immediate arrangements to pick same up. Chief Pathologist, Dr. G. MARTIN of Kamloops was then advised of the circumstances of the death and that the bodies were being removed shortly to Schoenings. He advised that the autopsy would be conducted the following A.M.

11. Coroner ADAM and Les KERR were then advised as to the recovery of the bodies. ADAM was advised that other than personal possessions, identification could not be made of the bodies. He concurred with the identification procedures we had followed and advised that he would be ordering an inquest into this occurrence. Photos of scene obtained and will be forwarded with subsequent report.

s.19(1)

12. Attachments hereto are:

[redacted]

13. Copies of this report direct to Ministry of Transport, 739 West Hastings Street, Vancouver 1, B.C., Attention [redacted]

STILL UNDER INVESTIGATION

D.D. 30 SEP 74

[redacted] Sgt.
i/c Dt.

Cst.
(B.C.J. LUNDGREN) 27604
Ashcroft Detachment

RE: OBJET:

PAGE

s.19(1)

Aircraft Crash Ashcroft, B.C. 2 AUG 74

This is the statement of [redacted] B.C., taken this 2nd day of August, 1974.

On the 2 AUG 74 I was piloting a spotter plane for CONAIR AVIATION. My position with the company is Superintendent of Flight Operations. I was flying mainly surveilance however was pressed into directing the air attack against a fire 15 miles southeast of Ashcroft, B.C. I have had previous experience directing attacks and the other crews were busy.

I would estimate the time to be about 1610 o'clock. We were in radio contact with the aircraft that crashed and gave him directions on how to get to the fire we were at. We directed him over top and he circled over to have a look. We gave him the information needed to make the attack. Eg. fire elevation, wind direction, direction of run and type of drop. There were not any particular instructions in this case. He circled about 3 or more times, came around and advised he was on final to make the drop and armed for the drop wanted. He asked us to check his line of flight which we did and determined him to be off by about 20 degrees. During this manouver we are up high looking down. On my suggestion he elected not to drop the load and to go around and line up again to make the drop properly. He turned in the valley 180 degrees from flight path and began climbing to commence the procedure again. He continued up the line when he called and advised he was in trouble and losing air speed. He did not sound too alarmed. By this time he was about 3 miles past the fire. I advised him that if he was not happy with it dump the load. By this time I could see things were not good. He immediately came back and said he was going in. The left wing dropped. The nose dropped about 45 degrees and crashed into the ground.

The load was never dumped. I feel he could have dumped in the time the conversation took.

In my opinion I feel he may have crashed because he committed himself to climbing the hill and got boxed in. He left no way out. He may have gotten out had he dumped.

When first approaching the fire he was going downhill and after the 180 degree turn was going back up the hill.

Cst. SHAW J.C.
Kamloops City GIS

Signed: [redacted]

s.19(1)

RE: OBJET: Aircarft Crash, Ashcroft, B.C. 2 AUG 74

PAGE

This is the statement of [redacted] of [redacted] B.C., taken this 5th day of August A.D. 1974.

My present position for the B.C. forest service is air co-ordinator for the Kamloops area. On August the 2nd, due to the number of fires I was acting as Bird Dog Officer. I was flying in aircraft C-FHDP piloted by [redacted] operations manager for Conair Aviation. We were requested to work fires in the Lillooet area, and while on route we noted fire burning in the Highland Valley area, South East of Ashcroft. It was decided between myself and the district headquarters duty officer, [redacted] that these were high priority fires. With only 1 Avenger aircraft available for these fires further assistance was requested and a DC-6 was dispatched from Abbotsford.

At approx. 1610 the DC-6 contacted us giving his position and asked confirmation on fire location. Approx. 10 minutes later the DC-6 arrived over the fire and at this time MARSDEN gave instructions to the pilot and the bird dog flew the flight path. The run was approx. North West to South East, DC-6 acknowledged the run and type of drop requested.

Shortly thereafter the DC-6 reported that he was on final and doors were armed. As he approached the target we observed that he was approx. 15 to 20 degrees off line. The DC-6 was requested to hold his load and go around, this request was acknowledged and the tanker overshot the target. At approx. ½ way through his left hand circuit the DC-6 reported "We're experiencing a little difficulty, I'm losing air speed". This was put across in a calm manner and he didn't sound to be in a panic. At this point [redacted] advised him to drop his load. The load did not go and shortly after the crew member of the DC-6 yelled we're going in. The aircraft appeared to strike the trees with the left wing and immediately exploded. Shortly after [redacted] reported the accident to the Kamloops Control tower and I reported same to the district forest headquarters of the B.C. Forest Service. We then returned to Kamloops and landed at 1640 o'clock.

K. WINGENBACH, Cst. Signed: [redacted]

7530-21-029-4528

RCMP-GRC 6881 (CONTINUATION / SUITE DE) REV. 1-4-66

s.19(1)

RE: OBJET: PAGE

Aircraft Crash, Ashcroft, B.C. 2 AUG 74

This is the statement of [redacted] of D-23 [redacted]
Phone [redacted]

Arrived at work 3:45 P.M. August 2, 1974. Rain and lightning storm had just passed through the area. Thought of a possibility of fires being started because of lightning and dry forest conditions.

Proceeded to work as usual. Hauling waste ore from shovel number ten. Dumping loads up at dump on top of hill. On the way back to the shovel, I looked across the valley.

Saw the smoke from a fire that was just around a knoll in the mountain side. Knew there was a fire. About same time saw the plane coming up the valley. (Plane flying pattern drawn in pencil) First saw it in the (A) position. Watched it proceed the pattern. In the (B) position saw the sun reflect off the wings and body. From this I got the picture of how high the plane was above tree level. From where I sat (myself) I would estimate plane to be 1500 ft. above trees. Knew he would be low because of the nature of his job. The plane carried on to position (C). Plane had completed the turn and was flying level. There was a red streak appear from behind the plane. Thought it to be unusual because there were no fires in his area. Thought something was wrong. About the same second, the plane and the red streak came together and went straight up in a column, mushrooming at the top in an orange ball. Split seconds later it turned black, into smoke. Seeing this I froze my attention to what I had seen. Wanted to see the plane or something appear to let me know everything was okay. There was nothing, just bits and pieces of plane and fire falling into the trees. Looked at it for a few more seconds then looked at watch. It said 4:32 or 4:33 P.M. Proceeded to the shovel and told operator what was seen and that he better call RCMP or forestry. This was done. Interviewed ten minutes later by Lornex security and shift foreman.

W.J. IMLAC, Cst. Signed: [redacted]

See attached photocopy of diagram attached.

7530-21-029-4528

s.19(1)

DETACHMENT INVESTIGATION REPORT
RAPPORT D'ENQUÊTE DU DÉTACHEMENT

Occurrence No. – Incident N°

File No. – Dossier N°

This is the statement [redacted] of

Re: – Objet:

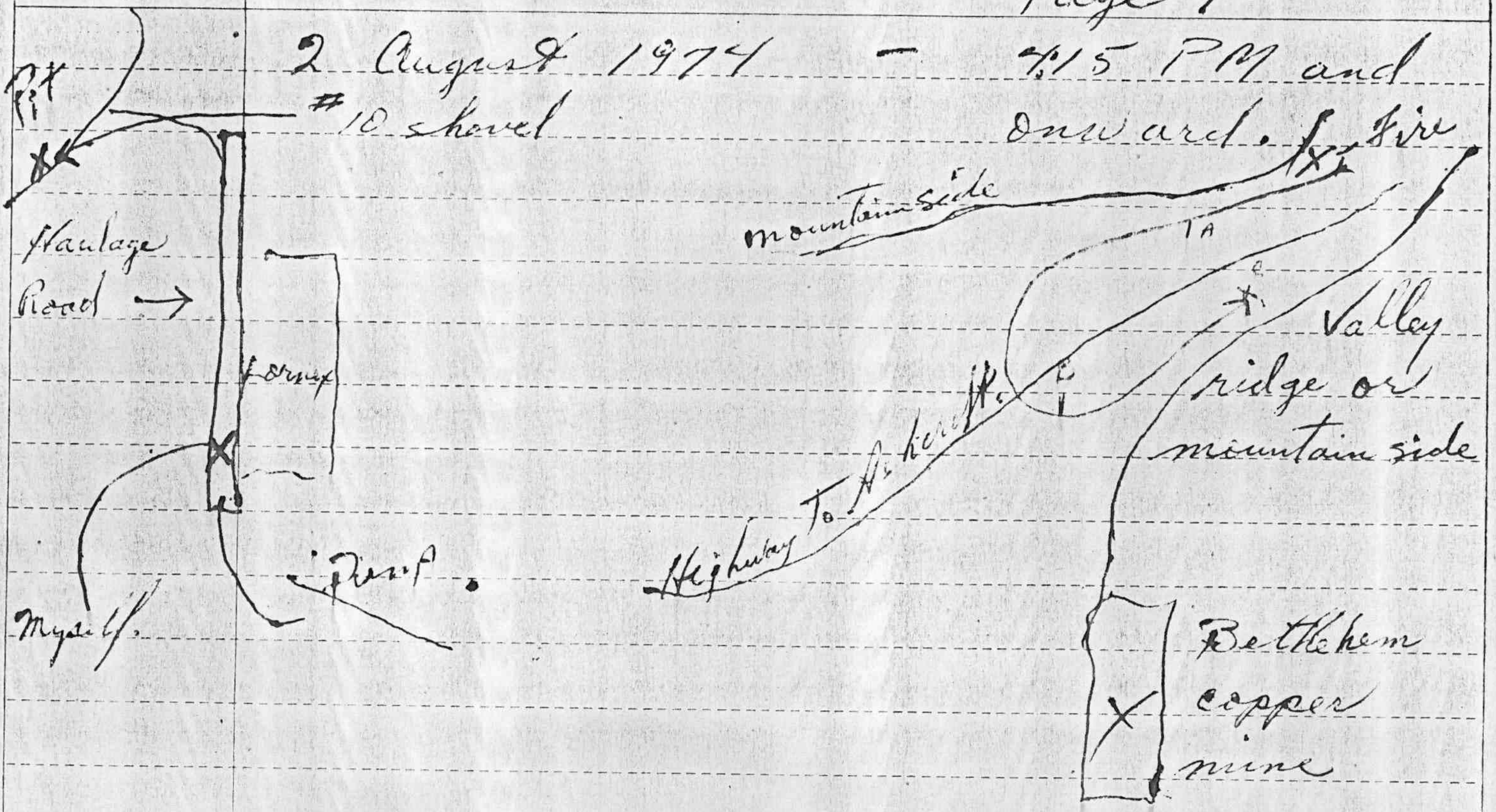
D-23 [redacted]

Date & Time – Date & Heure

Details – Détails

Page 1

2 August 1974 — 4:15 PM and onward.



RE: OBJET: James Fredrick FLWELLE(B:23-3-19) "Et al" 32687 Huntington Rd, Abbotsford, B.C.
Sudden Death of - Plane Crash.
Near Ashcroft, B.C. 2 AUG 74
ASHCROFT DETACHMENT CASE - UNORG.

PAGE

s.19(1)

1-BEST AVAILABLE COPY

Statement of [redacted] of Lower Nicola, B.C. near Merritt, taken this 6th day of August, 1974

On Friday, the 3rd of August at approximately 4:25 P.M., I and [redacted] and [redacted] were returning from the pond area of the mine which is down near the main road when I saw this plane come over the top of the mountain. I would say it may have been about 3000 feet over top of the hill and it started to swing west. I thought it might have been a charter flight taking pictures in the area or something. I dropped the other two men off at the service shop at Lornex Mine, and I headed back to my office which is perhaps one half mile from the service shop, so I would have arrived at my office about 4:30 P.M. I stopped at the stop sign facing west, and then saw the plane fly right into the side of the hill. It appeared as though it was trying to climb. When it hit, it just mushroomed and then started to burn. It was still burning when I left to come home at 4:45 P.M.

Q. Was there a forest fire in the area at this time?
A. They said there was, but I didn't know.

Q. How far away were you from the plane when it crashed?
A. Oh, perhaps 7 or 8 miles.

Q. How many engines did it have?
A. 4

Q. Did it seem to be running okay or could you hear it?
A. No, I thought it was a jet at first and couldn't hear it.

Q. Was the plane in one piece when it hit?
A. Yes.

Q. Is it common for it to be windy in that area?
A. Yes, there is always wind.

Q. Did you see the plane drop anything before it crashed?
A. No, nothing.

Q. Was the hillside quite steep where the crash was?
A. No it was a gradual climb.

Q. Did the plane appear to be turning when it crashed?
A. No, just trying to climb.

Witnessed: G.J. Loeppky, Cst.
Merritt Detachment.

Signed: [redacted]

7530-21-029-4528

000074

RE:
OBJET: Aircraft Crash, Ashcroft, B.C. 2 AUG 74

PAGE

s.19(1)

Statement of [redacted] of [redacted]
Ph: [redacted]

I was proceeding home from work (Lornex) Friday, 2nd of August when we came to the Bethlehem Copper turn off. There was myself and [redacted] I mentioned that a plane was flying rather low to my left some two miles ahead. It was tipped on its side about 20 ft. above the trees when it dropped out of the sky. I mentioned to my passenger, "I think the plane crashed", when we saw a great cloud of black smoke open into a ball of fire. I looked at my watch, it was twenty minutes to five in the after noon. We continued on but could not get close to see if we could help. It appeared the location was behind and to the north west of CONKLIN's place.

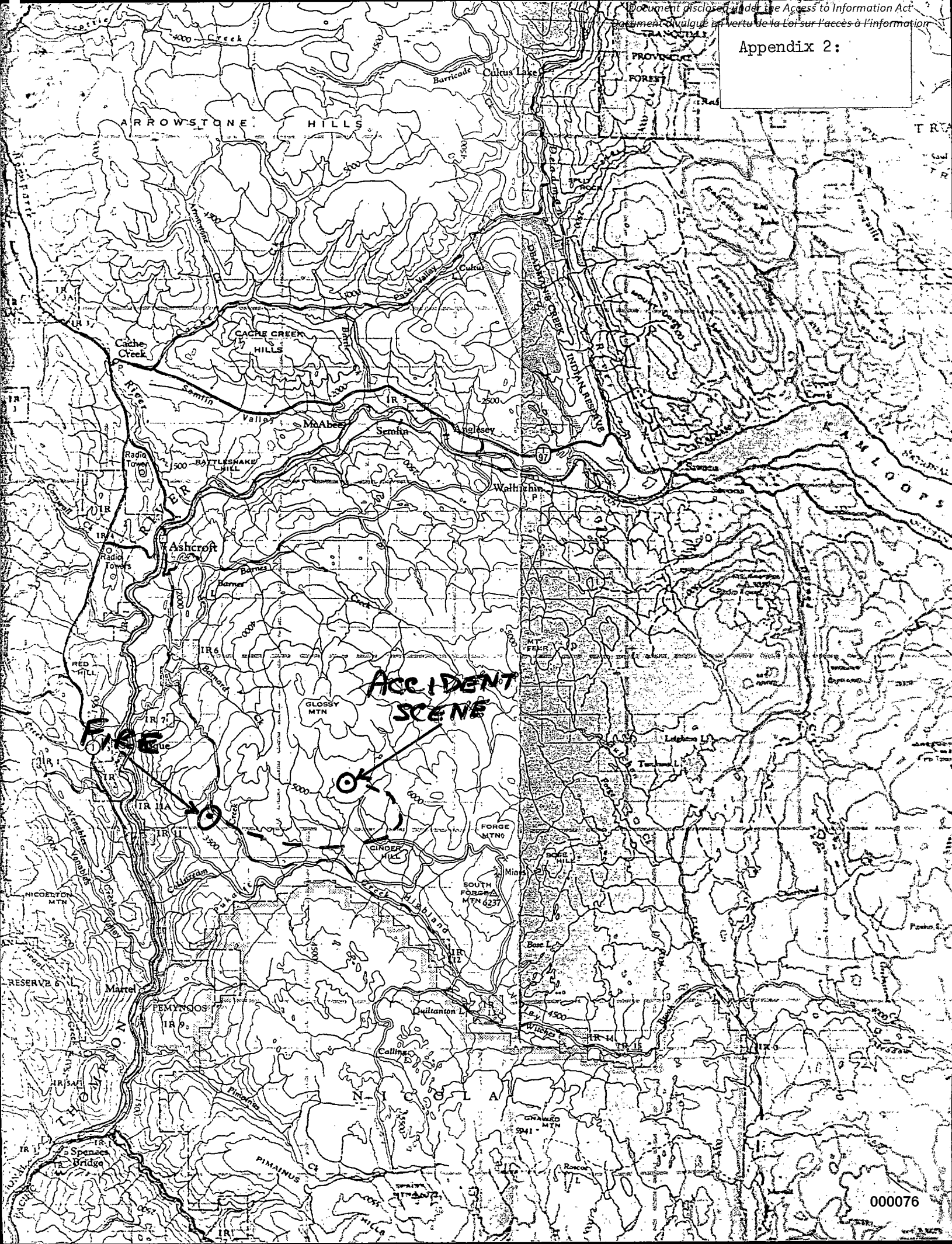
Q. Did it appear to you that the plane exploded previous to the crash?
A. Definitely not.

Q. Did you see any flame or black smoke before the crash?
A. None at all.

Witnessed: (B.C.J. LUNDGREN) Cst. Signed: [redacted]

7530-21-029-4528

Appendix 2:



s.19(1)

Appendix 3:

STATEMENT OF [redacted]

Yesterday afternoon we had a call to go out and look at some fires. Ian Morrison, B.C. Forest Service Air Co-Ordinator and myself were just doing supervisory work and looking at fires trying to decide priorities - which is the worst or which has the most priority and on route to look at some. They called us to see if we would go and bird dog one particular fire and on route to that one we spotted two more and elected to go down there and work those first as they were smaller spots. We had one TBM come in and make one load on one fire and then moved on to the fire which we heard via, of course, via the radio that the DC-6 was coming too and about let's say 15:50 thereabouts, he called and gave his position and I gave verbal directions to what area we were in and they came overhead, looked at the fire and I gave them information about the fire, where we wanted the load put and the type of drop, terrain, wind, exit from the drop area, and those type of considerations that we take into account after making several runs over the fire in the precise area, before the drop and once he was overhead and all ready we made another run so he could observe and get the line and make sure that the word picture was the same as the vision. After that he let down and started his run in for the drop, "turning final for the drop," which is the normal call, so that the bird dog is in a position to observe and also you call that you're armed, your doors are armed - just safety check to make sure that the fellow is armed and on top of that make sure he's armed in the sequence that was specified to space the load. So he called that he was turning final, armed, then I re-checked that he was using the particular sequence. He checked back that he was. He came over the fire and said "how's my line, can you check my line?" or words to that effect so I juggled myself into a position to look down and saw his line was off about 20°, so I said, "No, you line should be about 20° left, your nose should be about 20° left, you might as well go around," and at that time I could see the airplane change attitude and start to climb away. I turned away from him, I didn't really observe anymore....

He was going East and I turned South just to allow me to make a turn and come back over the fire in order to observe his next run. When I turned back to get in view again he was proceeding what I later determined to be on a heading of between 280 and 290 as near as I can determine. He was going straight out so at that time I thought, well, I'll just use several techniques for observing the drop. One is to just follow around in formation at 500 feet above so that the bird dog officer.... he's the one who has to see the drop and so he can see it so I thought, well, I'll just dash over there and I'll get in a position to formation him; and I'll just come around the turn and check his line, to be sure. So as we were going over there he, at one point, and this isn't really valid, it's just an off-handed comment - at any rate I turned to Ian and then I thought, gee, I hope it feels better than it looks. It looked slow to me but.... and this is deceiving as hell when you're 1500 feet above them and when you're used to bird dogging - and what you've seen most recently is small airplanes, then you see a large airplane and it always looks like it's hovering. If you get a 737 and a 747 in a circuit, the 747 doing 50 knots more, you swear it's doing a hundred less, so that isn't really even valid, I don't think.

But anyway we continued up the line. There was nothing eventful - we were just casually observing. I was watching his position and positioning myself, not for any other reason, and then he called and said, "Barry, I'm in trouble.... we're losing airspeed." But it was a pretty casual call and I said, "If you're in doubt or if there's any doubt just pickle it off, dump it. Don't worry about it." There was a pause after that and I'd be guestimating the duration of that pause - there's a big difference of opinion between Ian and I. I just thought it was a few seconds - a very few. About the whole lapse of time from when he first called when he went in, which might be in the order of 8 seconds, thereabouts. It was still quite a period of time and anyway, when he did come back finally he said, "I'm going in," and then there was a sheer panic I recall and there was other background noise but he was just shouting himself at that time. Absolutely in trouble he no sooner finished that transmission and the left wing dropped and the nose went down just came up just a bit before it stalled out. Without doubt it struck trees first. It's somewhere between 60° of bank, 60 to 90 with roll on, I would guess 45 to 60°. I didn't see anymore because a mushroom came up off of it to our right besides, I moved back out of the area in case it blew, like I didn't know what but I thought maybe oxygen bottles or flying metal. I didn't want to be hit so I turned around to be clear of that particular area. We circled and called the tower to advise that we circled the area and the whole thing, the whole area was just a mess of flame and fuel everywhere. It looked like the right wing was upside down and that's about the furthest West - Southwest piece of metal or material that I could see and fuel tank covers on the bottom.

So we came back here and got the helicopter to go out - the forestry man and one of our people just scour the perimeter to make sure; you know, I guess I was convinced at the time; fairly certain that no one had survived.

So the helicopter.... there was still reasonable fire so they could scour mainly ahead.

Q: You called the twoer immediately after the accident?

A: As soon as I could gain altitude, yah, we called them and told them we lost our DC-6 so they called back and said, "Go to ground." So I tried to get them on ground. We couldn't get them, in the meantime, Ian called Forest Service Headquarters and reported on a formal basis through their radio net. We didn't stay there that long. We came back in here because there was no point in my opinion to hang around and we couldn't do anything but watch the fire from our position.

Q: The transmissions referred to between you and the aircraft; were they two that were only transmissions from the time they aborted the run until the accident?

A: That's correct and just the fact that he said he was losing airspeed - he was in trouble because he was losing airspeed and then the, "I'm going in." There was a distinct difference between the two transmissions. The losing airspeed, he must have been casual, because it would have alarmed me, it must not have been a panicky call. I'm sure it wasn't. Otherwise I would have been alarmed, but I went back in a casual manner and said, "Pickle it off - dump it."

Q: At the time of the first call did you recall the attitude the aircraft was in or could you see it from the position you were in?

A: Yah, I could see it. Well, I observed the thing, I would say nose high but being above it not all valid actually I thought earlier in the run, you know, the whole 2 miles he was nose high. I wouldn't say there was any validity in that, but when he called I'm sure he was nose high.

Q: Do you have any idea or estimate of the altitude where the fire you intended to bomb was?

A: Yes, it was 4,300 feet.

Q: And what altitude would he be in when he crossed on that aborted run?

A: 4,500, and that's a guess. He would have been down. He could have been 4,300 but I'm sure he wasn't because he aborted before. He didn't go through the whole run so to speak. He just.... I just said, "You're off line," there was no further reason to continue, so he aborted, so just flying around, I think 4,500 feet, maybe 44 but not 43 because he hadn't got down to the fire.

Q: Well, from that point to the point of impact should have the aircraft climbed the 500 feet or so difference?

A: Sure, because he went into the valley and turned and made quite a long turn, I don't know what the duration of time would be between crossing the fire and the point of impact. Yes, it should have climbed, unless he let his height slip in the turn, back to the down wind leg, or let his airspeed slip off - no particular reason for either one.

Q: Would you have any way of judging his speed in your position as the bird dog?

A: No, not to be meaningful.

Q: You weren't formating at the time?

A: No, because I was gaining. I was coming from a distance away coming up on him but it wasn't the kind of formation where you - where you could tuck in. I just want to get generally overtop and then finally before he drops I would want to pass him because we're 500 or 700 above his turn to the right so the bird dog officer can observe the load as it comes out and goes down the fire line.

Q: Well, in your assessment, considering the terrain, do you feel that turning to the left as he did would be the appropriate thing to do?

A: Yah, sure, that was the appropriate thing. Yes, definitely.

Q: What do you estimate the wind to be at the altitude you people were operating?

A: At the fire I would say about five. I would say the wind today is the same as yesterday, only in the opposite direction.

Q: Did you notice any turbulence or any subsiding air in the area?

A: Ah, this is one of the things we look for and I didn't notice any. That isn't to say there wasn't some. It changes by itself. It's an all sun hillside. There's no shadow on it through a major part of the day. There are no sharp breaks to suspect subsiding but that doesn't mean there wasn't.

Q: Did you notice the outside air temperature at the altitude you were working?

A: I didn't particularly. I think it was around 80. The helicopter said 84 when he was in - I guess that with the sun shining on us that's a little hotter than I would have suspected for my flying around at that altitude. We check through the day just as a matter of reference to see if it has to do with the fire hazard. You know when it gets up to 70° at 7,000. Right now it isn't abnormally hot high up. At 9,000 today it's 52°.

Q: How long does it take to dump the load if you were using emergency dump or dumping all doors at once?

A: It's instantaneous - it's unmeasurable.

Q: And do you feel, in your opinion, that the situation he was in, when he first mentioned that he was losing airspeed, if he had dumped at that time do you feel that he could control the aircraft with the loss of weight?

A: Yeh, I think so because Jim himself had test flying, the evaluation on it, and yah, saying so or thinking that his airspeed was still reasonable but it may have been 85 knots. When he said he was in trouble and was losing airspeed he lost it then and I'm sure he lost a big portion of it. He admitted to that but from that point on, on the flight line that I think he was on, I flew that again today and gee, it's not 50 feet of rise against the ridge, you know, to cross right over, straight ahead.

Q: You're referring to the ridge where the final impact was?

A: Yah, the ridge to go right over back into the Fraser. It looks like there's a gray.... it looks like there's some climbing to do, but we didn't get 5050 geet. It's a very sensitive altimeter.

Q: And then the terrain would drop away down to the Thompson?

A: Yah, down to the Thompson. That does, that looks, I thought yesterday, about another 150 feet but.... maybe 5040 mind you, we weren't right on the tree tops the highest I thought we were about at the same height above the trees at the crash site as we were when we had lots of sky, clear air underneath.

Q: How long had this particular crew been working together and how long has each individual member been involved in water bombing?

A: Ah, Jim, this is about the third year involved in it. The co-pilot was on his first actual fire bombing trip. He had been in the DC-6 as a co-pilot since April continuously. I wouldn't like to guess at his hours, on the order of 100 in the last 90 days, something like that.

Q: And the crewman, what was his experience?

A: Well, none, he was just a mechanic on board.

Q: Does he have any duties directly related to the bombing run itself?

A: No, none whatsoever. It's a two man crew.

Q: What would be the duties of the first officer on the bomb run - does he have any specific duties or does he just monitor?

A: He calls out altitudes and airspeeds, you know, or minitor altitudes and call airspeeds. That's the only duty, the captain does the drop.

Q: So the captain does the flying while....

A: Oh, power, power, pardon me. He monitors power and ah, everything and calls airspeed and adds power as required, but the captain has his hand there too, the captain feeds it in and the co-pilot keeps it even or puts it up to the specified setting. If he's asked for "meto" power, he's got it and the captain follows on through.

Q: So the captain is controlling the aircraft and doing the actual dropping?

A: He's doing the flying of the aircraft.

Q: What was the fuel load on board when the aircraft departed from Abbotsford?

A: 14,112 lbs.

Q: What would you estimate the fuel consumption to be on this flight?

A: About 3,000 lbs.

Q: What spare parts were on board the aircraft and where would they be located in the aircraft?

A: 3,300 lbs. of spare parts tied on the tranverse beam which is right on the C of G.

Q: Explain the duties of the "bird dog" during a fire bombing mission.

A: He first arrives over the fire, does an initial surveylance, arrives at altitude so he can look down and assess the terrain kind of in a broad sense and normally orbits down to the thing so he is continuing in his assessment all the way down to fire level and finally getting down to have a look at the exact fire to see which way its laying, what the field is like, what the wind is doing and how it's burning. Mainly this is for the bird dog officer to assess, and then with your views of the terrain prior to that and with what the bird dog officer wants done, if what he wants done is in keeping with the terrain then make runs in that direction in whatever method of attack on the fire he wants, if terrain and wind and visibility suits. At any rate two or three runs down to tree top level so he can observe snags or anything that may be.... the bird dog, if there's a doubt will go lower than is necessary to drop in case of a DC-6 from a hundred feet thereabouts, the bird dog will go lower to make sure that he gets a good idea of what's there, what snags or obstructions are there, you know, flying terrain, if you're 200 feet above you don't even see the little undulations and that's about all, I guess really, general weather assessment, visibility, the exit, you should always ensure that after the drop that the worst situation is level ground, we don't have any uphill or drop elevation so if in this case with a drop elevation of 4300 we leave the fire at 4300 and fly level for a goodly distance until the tanker is well in the clear and turn or make a 180 or turn right or left or continue straight on so that there is ample distance so they don't have to take evasive action right away, you just continue that height right out and then you're sure that a ridge across the valley even is below or determine whether it is above and you do have to turn for it. And that's about all you have to do prior to the tanker getting there. And then the tanker usually announces his arrival about 5 minutes out or 3 minutes out depending on the level of traffic and he comes in higher and orbits so that he can keep the bird dog in sight and you try to be either off the nose or off the tail of the bird dog when he makes his pass across the fire so that he can get a distinct line on where you should be. And the bird dog does a general target description again prior to the run, comes around, makes the same pattern as the tanker makes, turns final, calls turning final and then does a general description of the run in and what the tanker will see on the way in so that he's somewhat at home. He's got this picture in his mind where to drop when he sees the events happening, you know, something standing up or just before the smoke or to the right of the smoke or just that type of thing and also specifies the drop sequence, whether it's a full load or a terrain drop or whatever type. Then moves off in order to observe the tanker making his run and the idea is to be again just over top, you have the tanker on your right side so the bird dog officer gets the best look at the load coming out and just returning over top of him or slightly behind or slightly ahead, about 500 feet, 500@1000 I guess, off-hand numbers, but well above so looking down you can see the load coming and where it goes and identify whether it was a good shot or a bad shot or whether it was in the place where you wanted or you may change your mind and figure you want something else, from what you see there. I guess that's really about all I can say unless you have any more specifics.

Q: What I wanted to know was the relationship of the bird dog to the tanker. Does the bird dog sort of control the movements of the tanker or is the tanker pilot free to make his own decisions?

A: He does his own thing, we just provide the information, he can say, well look, isn't a run at 90° better to that or that looks like it's uphill to me, and then you can say, well no, but if you go 90° it is uphill just as the terrain is deceiving, he's still at 3000 feet above when you give him the description and quite often a tanker will say, well look, it looks like maybe we can make a better run this way so you'll go try that and it may work out, you know or it may not, it just depends on the terrain and the smoke and visibility and wind and in keeping with what the bird dog officer wants. So it's kind of a free-for-all, if he can suggest anything he wants, but after the decision is made that O.K. we want this done then he.... it's up to him to put it, in that spot and that's his decision how he does it, he can do it any way he wants but there's a standard, you know, practice, a standard procedure to....

Q: So, the bird dog officer is more of an advisory to feel out the situation?

A: Yeh, it's kind of a safety tool and observation platform for the fire-fighter being the bird dog officer, he's the guy that fights the fire and the bird dog pilot is kind of a safety man for the tanker pilot who warns him of winds, hazards of any type.

Q: Right, but once the tanker pilot gets down to the fire if he feels that whatever you've told him previously is not to his liking he can take his own action?

A: Do his own thing, he can drop it anytime or not drop it. You know, it's quite common to elect not to drop because you get down and you can't identify what he told you, maybe it's been a bad description or whatever and you can't see just exactly what it is then you go around and do it again to get it right because you must, you don't want to waste the load for one thing, and for us to drop not knowing that you're dropping you're not even thinking that you're dropping in the right place, that's just no value to anybody. For somebody to drop and miss, that's fine but they should think that they're dropping in the right place in their mind, you know, but if they just send a fellow up there and just.just goes BLAP on the side of the hill, that doesn't do anybody any good kind of thing so you've got to be confident the tanker pilot wants to be confident for one thing that he's putting it in the right spot what he thinks is the right spot still it may not be right but as long as it's what he thinks is right that's the part that counts.

Q: On that next question, do you recall any specific information that was passed to the tanker on this occasion?

A: Nothing more than the kind that was in the statement, it was kind of a straight forward easy deal. He was given that we wanted to use his full load in one pass, if I recall double terrain and then the doors go off two at a time, four pairs to give eight doors, and use the whole load. Like any other initial drop on the right hand side of the smoke, it was

kind of a basic thing which was the upwind side.

Q: So, there was nothing unusual or difficult about this particular drop?

A: No, it was one of the... if you could class it as one.... of the easier targets because of it being on a gentle slope and just a downhill run easy to see and no wind.

Q: Did you recall what the visibility was like in the area of the fire?

A: No, there was very little smoke, not much at all and general visibility was just unlimited, it was clear and fire visibility was excellent.

Q: Can you think of any reason why the load wasn't dropped when the pilot realized he had problems?

A: Well, possibly pride of dropping before he really had to or pre-occupied with his problems, no, I can't think of that one. Not a reason, that's a basic what you like to develop as a condition reflex, that's your exit, you know, if you get yourself in a jackpot, if you get yourself in one with your King-Air you've got to live with it, you know, if it's doing all it can do it can't do anymore, a DC-6 you can let 25,000 lbs. go and you're back to an empty weight aeroplane that was lighter than the airlines ever flew.

Q: Well, from having flown that terrain do you think if he had dropped the load somewhere about the time that he was having trouble do you think he would have cleared the ridge?

A: Yes, well, it's really hard to say, well everything's conjecture or speculation but you kind of think that maybe he was in deeper trouble than what it sounded like at that point, once he said he was in trouble maybe he was in kind of over his head then, because there wasn't that much time between when he said that and when he landed, it's not possible to say, really, because you don't know what his speed was.

Q: What is the stalling speed of a DC-6?

A: Roughly, about 95 knots.

Q: What would be the normal speeds used while you're working a fire such as approach and climb out speeds?

A: O.K., decelerating from 160 which would be kind of a fire manoeuvring speed, 160 knots, through 140 and dropping between 130 and 140, typically 130. Depending on terrain and wind.

Q: And what speed would you use to climb out afterwards?

A: 160, 165 knots.

Q: That's whether you were loaded or empty?

A: Yeh, that's just a standard climb speed, and 140 is a standard approach or pattern speed in the area.

Q: Is a left hand pattern normally used when working a fire?

A: Whenever you can to keep the thing on pilot's side.

Q: Is there any difficulty from left hand seat to see if you were working a right hand pattern?

A: No, not really, you can see. If you set yourself up properly it's always nicer say even in a A-26 or a TBM even you know which is a single engine all glass canopy that everybody likes to work left which is kind of a normal function.

Q: What was the heading of the DC-6 when he crossed the fire?

A: I'd have to guess but I would say 100° or thereabouts.

Q: And after he started his climb out I believe he said he made a turn to the left.

A: Well, when I picked him up he was climbing about west to 70 or 80 degrees.

Q: Then it was a continuous left turn probably after he aborted the run?

A: No, he went straight ahead after he aborted the fire and made like a teardrop I presume because I didn't observe it, he made a full 180 like the fire was there and he came across here, I don't know whether he went like that or like that, but anyway the next time I observed him was here and when he came across here about 20° off the line I turned because we were in a right hand turn to observe the load and the line. I turned and went out this way, yeh, this was all valley through here, he just continued going that way hoping to come back here and just turn over the fire and watch him making the drop and when I came back he was maybe in that position but he was going off on the same heading or I didn't see him turn, he just appeared to go straight ahead until the crash. What happened between going around here and when I picked him up I don't know, he made a 180° turn somehow or another.

Q: And he was flying straight ahead just before he went in?

A: Straight ahead. It appeared to me there was no turn for this maybe two mile stretch here.

Q: In this type of drop system what would be the result if all the system pressure was lost including emergency air?

A: You wouldn't be able to drop. If you had the emergency and your regular system void of any supply there's no way you could drop.

Q: So pressure is required to release the doors?

A: That's right, but you've got a dual capability system so you've got to have two failures.

Q: The normal and the emergency?

A: Normal and emergency, yeh.

Q: What is your position with the company?

A: Superintendent of Flight Operations.

Q: And approximately how many hours do you have on the DC-6 and how many working fires on the DC-6?

A: That's one I can't answer off the top of my head, about between 100 and 150 hours on fires on the DC-6, I guess, and maybe 250 to 300 total.

[redacted]

CONAIR AVIATION LTD.

AIRCRAFT WEIGHT & BALANCE REPORT

Make DOUGLAS Model ~~DD~~ DC-6B Serial No. 44698 Registration CF-PWA

Datum is STATION "O" 63 INCHES AFT OF NOSE

A. COMPUTED AS FOLLOWS IF AIRCRAFT WEIGHED

1. Levelling means SPIRIT LEVEL AND STRAIGHT EDGE
2. Main wheel weighing point is located ("forward") (504 "aft") of datum.
3. Actual measured distance from the main point centerline to the tail (or nose) point centreline. x 435" = 69" AFT OF DATUM

B. ACTUAL EMPTY WEIGHT 0 FUEL OIL AND ADI FLUID INCLUDED

Weight Point	Scale Reading	Tare	Net Weight
5. Right	22570	0	22570
6. Left	22480	0	22480
7. Tail			
8. Nose	12060	0	12060
9. TOTAL net weight	57110		57110

C. CENTRE OF GRAVITY AS WEIGHED

$$\frac{\text{MAIN NET WEIGHT X 504 + NOSE NET WEIGHT X 69}}{\text{TOTAL NET WEIGHT}}$$

10. Centre of Gravity relative to main wheel weighing point:
    (a) Tail wheel aircraft = = C.G.
    (b) Nose wheel aircraft = = C.G.

11. Centre of Gravity relative to datum: $\frac{22705200 + 832140}{57110}$ = C.G. 412.14
    (a) Tail wheel aircraft = C.G.
    (b) Nose wheel aircraft = = C.G.

D. COMPUTED IF WEIGHED WITH OIL (Item 4)

	Weight	x Arm	= Moment
Aircraft	57110	412.14	23537340
Less oil	1050	349 & 379	382200
ADI FLUID ~~Empty Weight~~	291	435	126585
12.	55769		23028555 = Empty Weight C.G.

$$\frac{23028555}{55769} = 412.9$$

E. EQUIPMENT LIST

Required or optional Item numbers as shown in Aircraft Specification
AS PER ATTACHED LIST

Fa9/57

(15) cont.

F. SPECIAL EQUIPMENT

Item	Make	Model	Weight	Arm
FIRE BOMBING	SYSTEM AS PER	MOT APPROVAL P/72/053		

Enter above those items included in the empty weight.

G. WEIGHT AND BALANCE EXTREME CONDITIONS

Approved Fwd. Limit 413.2" GEAR EXTENDED
Approved max. weight 97,290 LBS.
Approved aft limit 449.2 GEAR EXTENDED

	FORWARD CHECK Weight	x Arm	= Moment	REARWARD CHECK Weight	x Arm	= Moment
A/C empty	55769	412.9	23028555	55769	412.9	23028555
Oil& ADI	1341		508785	1341		508785
Fuel	2770		1247885	14377	470.45	6642430
Pilot (3)	495		27198	495		27198
Passenger(s)	108	870	93960	108	870	93960
~~Baggage~~ SEAT FOR BALLAST	200	870	174000	200	870	174000
TOTALS	60683		25080383	25000	490	12250000 RETARDANT
	Most forward		= 97,290	Most rearward		= 42724928

H. LOADING SCHEDULE $\frac{25080383}{60683} = 413.3$ $\frac{42724928}{97290} = 439.15"$

POUNDS OF BALLAST Gallons of Fuel	~~Number of Passengers~~	~~Pounds of Baggage~~ RETARDANT
385	200	NIL
1997	200	25,000

The above includes Pilot and capacity oil

I. EQUIPMENT CHANGE

Computing New Centre of Gravity

Item, Make and Model	Weight	x Arm	= Moment
TOTALS			

NM
NW = = New C. G.

Certified correct VRM304. Date July 19th 1973

Fb9/57

NOTE: - WHEN CARRYING RETARDANT FUEL LOAD IS TO BE EQUALLY DISTRIBUTED BETWEEN ALL 4 MAIN TANKS.

F. SPECIAL EQUIPMENT

Item	Make	Model	Weight	Arm
FIRE BOMBING	SYSTEM AS PER	MOT APPROVAL P/72/053		

Enter above those items included in the empty weight.

G. WEIGHT AND BALANCE EXTREME CONDITIONS

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TOTALS	60683		25080383	25000	490	12250000 RETARDANT
	Most forward	=		Most rearward	=	
		97,290			42724928	

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Gallons of Fuel	Number of Passengers	POUNDS OF BALLAST Pounds of Baggage RETARDANT
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I. EQUIPMENT CHANGE

Computing New Centre of Gravity

Item, Make and Model	Weight	x Arm =	Moment
TOTALS			

NM
NW = = New C. G.

Certified correct [signature] Date July 19th 1973
VRM.304.

Fb9/57

NOTE: - WHEN CARRYING RETARDANT FUEL LOAD IS TO BE EQUALLY DISTRIBUTED BETWEEN ALL 4 MAIN TANKS.

[redacted]

CONAIR AVIATION LTD.

AIRCRAFT WEIGHT & BALANCE REPORT

Make DOUGLAS Model ~~DC~~ DC-6B Serial No. 44698 Registration CF-PWA

Datum is STATION "O" 63 INCHES AFT OF NOSE

A. COMPUTED AS FOLLOWS IF AIRCRAFT WEIGHED

1. Levelling means SPIRIT LEVEL AND STRAIGHT EDGE
2. Main wheel weighing point is located ("forward") (504 "aft") of datum.
3. Actual measured distance from the main point centerline to the tail (or nose) point centreline. ~~x~~ 435" = 69" AFT OF DATUM

B. ACTUAL EMPTY WEIGHT O FUEL OIL AND ADI FLUID INCLUDED

Weight Point	Scale Reading	Tare	Net Weight
5. Right	22570	0	22570
6. Left	22480	0	22480
7. Tail			
8. Nose	12060	0	12060
9. TOTAL net weight	57110		57110

C. CENTRE OF GRAVITY AS WEIGHED $\frac{\text{MAIN NET WEIGHT X 504 + NOSE NET WEIGHT X 69}}{\text{TOTAL NET WEIGHT}}$

10. Centre of Gravity relative to main wheel weighing point:
    (a) Tail wheel aircraft = = C.G.
    (b) Nose wheel aircraft = = C.G..

11. Centre of Gravity relative to datum: $\frac{22705200 + 832140}{57110}$ = 412.14
    (a) Tail wheel aircraft = C.G.
    (b) Nose wheel aircraft = C.G.

D. COMPUTED IF WEIGHED WITH OIL (Item 4)

	Weight	x Arm =	Moment	
Aircraft	57110	412.14	23537340	
Less oil	1050	349 & 379	382200	
ADI FLUID ~~Empty~~	291	435	126585	
12.	55769		23028555	= Empty Weight C.G.

$\frac{23028555}{55769}$ = 412.9

E. EQUIPMENT LIST

Required or optional Item numbers as shown in Aircraft Specification
AS PER ATTACHED LIST

000090

Fa9/57

(A) Description

1. The retardant tank is installed externally under the aircraft and consists of eight compartments with eight doors, which are controlled by an automatic advancing drop selector switch. Door operation is initiated by the drop push button switch located on the left grip of the pilots control wheel.

   The opening and closing of the tank doors is effected by electrically controlled pneumatic actuators.

2. Retardant loading is accomplished through either a single point 3" kamlock on either side located on the forward side of the center tank bulkhead or a combination of the two. An internal loading valve divides the load into the tank by means of flapper check valves.

   The retardant loading level is determined by overflow openings calibrated on the side of the tank.

   A separate emergency air accumulator and valve is provided as a means of door opening in the event of normal system failure. The operating handle for this valve is located just forward and above the throttles.

(B) System Components

1. Drop system pump switches - the two pump toggle switches are located in the drop system control panel mounted in the upper right panel (formerly the cabin pressure control panel).

   The switch positions are "ON" and "OFF" and are used to operate the two air pumps which provide normal and emergency system pressure to actuate the doors.

   The pumps are regulated by pressure operated switches which automatically shut off once the desired working pressure has been attained.

2. High, normal, and emergency drop system pressure gauges - 3 gauges are installed on the air package in the forward tank fairing and indicate high pressure (950 - 1000 PSI), normal regulated (250 PSI), emergency regulated (300 PSI).

3. Drop Arming Switch - This switch has two positions "ARM" and "OFF" and is located in the system panel. For normal operation the switch must be in the "ARM" position.

4. Arming Warning Light - A red warning light is located in the system panel above the arming switch and indicated when the arming switch is in the "OFF" position.

5. Low Pressure Warning Light - An amber warning light is located in the system panel and indicates when the system pressure drops below (800 PSI).

   Emergency low warning light - A red warning light is located at the bottom right hand corner of the system panel, and indicates when the emergency accumulator air drops below (800 PSI).

6. System Go Light - A green indicator light located at the top right hand corner of the system panel indicates when the system is in a "Go" configuration which requires that the air pump switches are on and have attained system high pressure, have automatically shut off and that the arming switch is "ON".

7. Drop Selector - This control is used in determining what doors will open when the drop button is depressed. It has 16 positions, safe - all - (8 doors) LFT - (4 left hand doors), RT - (4 right hand doors), (1 & 2 - 3 & 4 - 5 & 6 - 7 & 8. Two doors at a time left to right), which consists of a front and a rear door; or singles 1 through 8. The door opening configuration is made manually and will advance automatically each time the drop button is released when the intervolometer switch is in the manual position. If the selector is positioned on number 1 door, and the intervolometer switch is placed in the auto position; and the drop button depressed, the drop selector will advance, sequencing each door numerically, at a predetermined interval which is variable by a potentiometer located to the right of the drop selector in the pilot's instrument panel. The sequencing will stop when the drop button is released (or all 8 doors have opened and the selector has advanced to the safe position) after approximately 3 seconds all open doors will automatically close. With the drop selector in the safe position the doors will not open when the drop button is depressed and the selector will not advance when the drop button is released.

8. Drop Button - The drop button is located on the left side of the pilots control wheel and consists of a positive position push button switch with a red guard. The drop button is used in conjunction with the drop selector to direct electrical impulses to the solinoid valves.

9. Door Position Lights - One light for each of the 8 doors is located in the drop system instrument panel and indicates when its respective door is in the open position. The lights will not indicate until after the time delay interval has passed and a closed signal has been sent to the door solinoid valve. The light will continue to indicate until the door limit switch is depressed by the linkage locking overcenter.

10. Emergency Drop Lever - This control valve when depressed, allows emergency regulated air to bypass the normal system solinoid valves, and is routed directly to the open side of the actuators, but still incorporating the momentary valves in the system. As the emergency air pressure rises in the distribution lines, the electrical drop system relay is de-activated by means of a pressure switch. The doors will not receive a closing signal until the emergency lever is returned to the normal position. When the air pressure drops, the system will rearm and the doors will close automatically. "ALL" available air in the accumulators is available for emergency use.

TEMP. PAGE

CAREER RESUME

Philip G. Clack
222 Anson Crescent
Victoria, B.C.

Telephone: (604) 384-3865

Employment History

August 71-present: Controller in Victoria Rescue Co-ordination Center. Responsible for initiating action in response to emergencies involving aircraft and marine distress and controlling military and civilian aircraft employed in search and rescue missions. The duties involve close liaison with other Canadian and United States government agencies and private companies, and the news media. Swift and accurate response, sometimes under conditions of considerable pressure, is essential. Maintained pilot proficiency on Argus aircraft.

1969-71: Officer Commanding Base Test Flight at Greenwood, N.S. Responsible for all air tests and acceptance flights on a fleet of eighteen Argus aircraft, and the supervision of a test crew of eight aircrew personnel. Also flight duties in areas as diverse as Norway, the Canadian Arctic and B.C.

1967-69: Captain on Neptune and Argus aircraft at 407 Squadron, Comox, B.C. Area of operations included all of Canada, plus the Western United States, Alaska and Hawaii.

1962-67: Administrative Officer at Halifax, N.S. and Public Information Officer at Comox, B.C. Maintained proficiency as a pilot on Beech 18 and DC-3 aircraft.

1960-62: Chief Pilot at Maritime Proving and Evaluation Unit, Summerside, P.E.I. Responsible for unit pilot training, flight safety, the testing of new equipment and modification to Neptune and Argus aircraft, and the preparation of detailed reports and recommendations.

1957-60: Represented the R.C.A.F. as an Exchange Officer with a Royal Air Force squadron based in Cornwall, England, but also flew out of Ireland, Scotland, Gibraltar, Malta, and Greece. Reported to R.C.A.F. Headquarters on aspects of R.A.F. equipment, training and procedures considered of interest to the R.C.A.F.

1951-57: Captain and Chief Flying Instructor on Lancaster aircraft. Duties included aircraft proficiency and instrument check rides, preparing assessments on all course pilots with recommendations for employment, and the scheduling of aircraft and crews. Based in the Maritime Provinces, but also flew in all areas of North America, Greenland, the Azores, Iceland, the United Kingdom, Gibraltar, and Morocco.

.../2

Flying Summary

Aircraft Type	Single Engine Dual	Single Engine Pilot	Multi Engine Dual	Multi Engine 1st Plt	Multi Engine 2nd Plt	Area and Year
Harvard	116	78				1950-Ontario
Otter	7	6				1954-Newfoundland
Lancaster			45	1988	424	51-57-Canada (incl. Arctic) USA, Europe, Azores, Morocco, Greenland, Iceland
Shackleton			37	748	104	57-60-UK, Gibralter, Malta, Greece
Douglas DC-3			20	535	46	55-66-Eastern Canada, USA, B.C.
Beech 18			85	429	90	50-66-Ontario, Maritimes, USA,B.C.
P2V7 Neptune			104	738	288	60-68-Canada, USA
Cp 107 Argus			42	2017	1151	60-72-Canada (incl. Arctic), USA, Hawaii, Alaska, England, Scotland, Norway, Iceland, Bermuda
Co-pilot on a variety of aircraft North Star, Mitchell, Canso, Albatross, Varsity, Nimrod, Hercules, Orion					67	Europe and North America
Total 9167 hrs.	123	84	333	6455	2172	Instrument-930 hrs.

Licences - Airline Transport Pilot Licence #QMA 803
- American FAA Airline Transport Pilot Licence #1602785
- Canadian Armed Forces "Green" Instrument Rating

Health - M.O.T. Medical Profile: 1-1-1-1 (~~December 71~~) JAN 73
- ECG: ~~December 71~~ JAN 73

Education - Second Year University

Courses - RCAF Instrument Flying School
- RCAF Winter Bush and Artic Survival, RAF Sea Survival
- Canadian Armed Forces High Altitude Indoctrination Course
- RCAF Flying Training School 1950

Passport - #CA415102 issued at Ottawa 13 January 1971

Born - January 9, 1929

Married - Two children

References - On request

C O N A I R A V I A T I O N L T D.

P.O. BOX 220
ABBOTSFORD, B.C.

PILOT HISTORY SHEET

1. Date 11 February 73
Name Philip G. CLACK
Address ~~222 Anson Crescent, Victoria, B.C.~~ 1518 EDGEMONT RD Victoria
Phone ~~384 - 3865~~ 477-1676
Date of Birth 9 January 29 Place St. Lambert, Quebec
Age 44 Marital Status Married
Dependents Wife, two children

2. LICENCE HELD:
Canadian Commercial: Licence Number VRS 913
U.S. ~~Commercial~~: ATR Licence Number 1602785
Radio Certificate Number: N/A
Medical Valid to: ~~3 July~~ 3 JUNE 73 Electrocardiogram Valid to: ~~3 July~~ 3 JUNE 73

3. EXPERIENCE: (First Pilot Hours Only - close approximations)

	Hours	Years
Light Aircraft (less than 4000 lbs.)		
Medium Aircraft (4000 to 12,500 lbs.)	503	1950-66
Heavy Piston (over 12,500 lbs.)	6026	1951-present
Jet Aircraft		
Hours last 12 months:	25	
Total Hours Dual and Solo	9167	1950-present

4. TYPES OF FLYING:

	No. of Months	Where	When
Forest Spraying			
Crop, Spray or Dust			
Forest Fire Bombing			
Mountain Flying Exp.	60	B.C. & Yukon	1964 - 69
Flight Instructor			

5. AVENGER T.B.M. EXPERIENCE:
Licence endorsed for T.B.M. Yes No X

	Hours	When
Military T.B.M. Time		
Civil T.B.M. Time		

6. 450 H.P. STEARMAN EXPERIENCE:

Hours _____ Where _____ When _____

7. REFERENCES:

Character		Ability (former employers only)	
Name	Major Gordon Bissell (Bissell)	Name	Major B. Clark,
Address	166 Estelline Road, RR 7, Victoria, B.C.	Address	8 Fifth Crescent, Greenwood, N.S.
Phone	479 - 8016	Phone	(902) 765 - 2371
Name	Capt. L. H. Villeneuve	Name	Capt. K. R. Mitchell,
Address	1164 Roslyn Road, Victoria, B.C.	Address	1 Catalina Lane, Greenwood, N.S.
Phone	598 - 3518	Phone	(902) 765 - 2514

8. PERIOD AVAILABLE: (April, May, June, July, August) State Specific Dates:
Entire period on 30 days' notice, or any two month period on short notice.

9. AIRCRAFT FLOWN (Over 4000 lbs.)

Type	Hours	Type	Hours
Harvard	194	D C - 3	601
Otter	13	Beech 18	604
Lancaster	2457	P2V7 Neptune	1130
Shackleton	889	CP 107 Argus	3210

10. GENERAL REMARKS: (use reverse side)

FEWELL	LIC.	VRA-1320
	MED. EXP.	OCTOBER 1974
	BIRTH DATE:	MARCH 24, 1919
	ADDRESS:	32687 HUNTINGDON ROAD
		RR #5
		ABBOTSFORD, B. C.
	EXPERIENCE:	9,800 HOURS
	HOURS ON TYPE:	274
	HOURS 30 DAYS:	44:47
	HOURS 60 DAYS:	51:42
	HOURS 90 DAYS:	51:42
CLACK	LIC.	QMA-803
	MED. EXP.	SEPTEMBER 21, 1974
	BIRTH DATE:	JANUARY 9, 1929
	ADDRESS:	1518 EDGEMONT ROAD
		VICTORIA, B. C.
		V8N 4R9
	EXPERIENCE:	9,500 HOURS APPROX.
	HOURS ON TYPE:	118.0 HOURS
	HOURS 30 DAYS:	64:24
	HOURS 60 DAYS:	84:55
	HOURS 90 DAYS:	109:31

5008-FBV

Conair

AERIAL APPLICATION
AND FIRE CONTROL

37146 AUG 12 74

August 8th, 1974.

Ministry of Transport,
Accident Investigation,
739 West Hastings Street,
VANCOUVER, B.C.

Attention: Mr. B. Dzus.

Dear Sir:

Re: Log and Aircraft Records for
Aircraft CF-FBV and CF-PWA

This letter constitutes authority to hand over above mentioned records to agents of our Insurance Company's adjusters, namely Brouwer & Company.

Yours truly,

CONAIR AVIATION LTD.

By: L.G. Kerr,
President and General Manager.

COPY OF
5008-PWA

LGK/mb

Government of Canada / Gouvernement du Canada

MEMORANDUM **NOTE DE SERVICE**

TO / À: PCAI - VANCOUVER [illegible] SEP 1974

FROM / DE: CASP - OTTAWA, ONT.
K1A ON8.

SECURITY - CLASSIFICATION — *DE SÉCURITÉ*	
OUR FILE — *N/RÉFÉRENCE*	5004-5-3 (CASP)
YOUR FILE — *V/RÉFÉRENCE*	
DATE	September 9, 1974.

SUBJECT / *OBJET*: AVIATION SAFETY - PUBLICATIONS
READER COMMENT FROM MR. K. FINDLAY

1 Attached are Mr. Findlay's letter to this Division and a copy of the reply.

J. T. Richards,
Superintendent, Aviation Safety Programs,
Aviation Safety Division.

Attach.

000098

address on back

Dear Sirs:

About two weeks ago an incident happened to me and it has troubled me ever since, and I have been wondering who I could talk too about it, so when I received your aviation safety letter and was reading it, it suddenly dawned on me why not speak to you people about it.

This is not to squeal on any one, its just to set me at ease, I suppose as to what I as a private pilot should have done if anything. I should also add I am a nothing pilot only about 500 hrs, single engine and own my own machine.

I will tell you what happened as I can recall it happening quite clearly, so you know by what I say it can be retraced by going back to the tapes which the D.O.T. would have.

While cleaning and checking over my aircraft I heard a DC6 start up just a little ways ahead of where I parked my aircraft. I had my portable radio tuned to ground frq. I could hear and noted what was going

They got all four engines fuel up quite normally, then the pilot taxied out on approximately a 180° turn and stopped where they put on a fire retardant chemical as the DC6 was converted for fighting forest fires; and was on a mission to drop the retardant on a fire approximately 150 miles away.

The pumping on of the retardent took I suppose about 10 minutes which gave the capt. & crew a good cock pit check I am sure. When this was completed he asked for a radio check and taxiing instruction and he was cleared to runway 18. He started his turn toward 18 and had to stop and wait for some time for a Cessna 337 sitting in front of him doing his check. The DC6 finally asked ground how long the 337 would be indicating to me he was anxious to go, ground informed him the 337 had just started to move out for 18, and indeed it took off shortly on 18.

Ground informed the DC6 he had to do his run up on runway 12 to which he replied this will just be a short run up, ground replied you will have to go to 12 anyway and do your run up.

The DC6 replied kindly and went over to

doing a 180° turn on 12 facing back at me as he did his run up.

He was right about the length of run up it was very short, he got clearance from the tower for a take off on 18 and started his taxiing. He rolled on to 18 and immediatly poured the coal to it.

This is when I came in to it, as he started his run it was very evident to me that one motor was very rough and to my thoughts putting out very little, I recognized this from sound but as he got going down further it started to cough and belch out smoke intermitently. I can even tell you what one it was it was the inboard on the right side. This bothered me so much that I came out from under the wing of my own plane and said right out loud don't go ... don't go, which I meant in my mind for the capt. to abort. (I confess also at this point that I was talking to myself which you can judge me for yourself.!!)

He made it off 18 with not much room in my judgement from where I stood, as he climbed out and did a easy left turn I thought he would never get 1000' let alone the alt.

he would need for his intended mission. He called back a while later saying to the tower he was changing to 20. frequency.

This was Friday afternoon. I went home some time later to my family, and told my wife the whole sequence as I was so concerned about it.

Then early sat. morning we as a family headed out to the airport for our sat outing in the plane. I went to the radio range to file a flight plan for Regina and overhead two men talking of a plane crash. I asked if a DC6 had crashed and they said yes and one of the men showed me the article in the morning paper. This was the very DC6 and crew I had watched the afternoon before. I hadn't heard a news cast of any kind and of all the aircraft flying in our area I knew it would be the DC6 that went down. I found out after this it was a real experienced capt. on DC6's he had an engineer on board and a young crew member.

Now I'm sorry for the lengthy letter but questions.

1. What is a private pilot, private citizen to do in a case like this?

2. Should I have called the tower or ground and told them my thoughts?

3. Should I have gone over to the co. office of the DC6 and told them?

4. Why didn't the Capt. & engineer read on instruments the problem?

5. If they didn't read the problem on take off then why did they not know the problem or a problem from the take off run or climb out? etc. etc etc.

I can see many problems in my 500 hr single eng. exp. or non experience getting through to some of these people in viewing my thoughts, yet I can remember saying to my wife I wonder if the DC6 will ever get back tonight, and of course it didn't but worse than that three men went to their deaths. I couldn't help but feeling very upset the more I read the paper and since.

You don't need to print any of this but I would appreciate a reply if you get time —

Hope this makes sense.

Yours truly,

s.19(1)

[redacted]

5004-3-1 (CASP)

s.19(1)

Ottawa, Ontario,
K1A ON8,
September 6, 1974.

Thank you very much for your letter of 15 August 1974 in which you recount your observations on the DC6 takeoff at Abbotsford. As this observation of yours is germane to the accident investigation we have forwarded a copy of your letter to the Regional Superintendent of Accident Investigation in the Vancouver office. As a witness, he will no doubt be contacting you. It was commendable to take the time to convey what could be important information on an aircraft crash although I am not in a position to observe on its relevance at this time.

As to your questions:

1 What is a private pilot, private citizen to do in a case like this?

This is a very judgemental matter. If you spot something that you deem to be dangerous, there is a moral obligation, of course, to notify the pilot or appropriate facility. It is better to alert a pilot to a matter which turns out not to be a problem than to be overly shy and perhaps not save an aircraft and its crew.

2 Should I have called the tower or ground and told them of my thoughts?

This is explained in the previous answer.

3 Should I have gone over to the Co. office of the DC6 and told them?

As discussed in No. 1

4 Why didn't the Capt. and engineer read on the instruments the problem?

This matter would be something that could be best explained by the aircraft accident investigator who will be contacting you. As you may know engines of this aircraft type are noisy, often coughing out bursts of smoke. During the run-up the crew most certainly would be monitoring the engine instruments; after all, this is the purpose of the run-up.

5 If they didn't read the problem on takeoff then why did they not know the problem or a problem from the takeoff run or climb out?

On takeoff, the crew would closely monitor the engine instruments because this is the prime method of determining the condition of the engines.

From the preliminary information it would seem that this aircraft struck the ground during a forest fire attack run - a not uncommon occurrence in this sort of operation. However, be assured that our investigators always thoroughly check every aspect of the aircraft itself to determine all contributing factors.

Letters such as yours are encouraging evidence of the interest in aviation safety among many pilots. Your approach to this whole matter is most commendable.

Yours truly,

J. T. Richards,
Superintendent, Aviation Safety Programs,
Aviation Safety Division.

JTR:dc

Government of Canada / Gouvernement du Canada

MEMORANDUM **NOTE DE SERVICE**

TO / À: PCAI - VANCOUVER

FROM / DE: CAIO - OTTAWA

SECURITY - CLASSIFICATION — DE SÉCURITÉ	
OUR FILE — N/RÉFÉRENCE	5002-P40074-1 (CAIO)
YOUR FILE — V/RÉFÉRENCE	[redacted] 74
DATE	August 28, 1974

s.19(1)

SUBJECT / OBJET: Accident Information - CF-DFC

Attached is a copy of a letter received by CASP (John Richards).

The letter is self explanatory and Mr. Richards has acknowledged receipt of it. He also advised [redacted] that you might be in touch with him.

Yours truly,

J. H. Nyhuus
for Chief, Accident Investigation Division
Civil Aeronautics Branch

Encl.

Spoke to K. Findlay 9 Sept 74

000107

Aug. 15, 1974

address on back

P-600-74-1

Dear Sirs:

About two weeks ago an incident happened to me and it has troubled me ever since, and I have been wondering who I could talk too about it, so when I received your aviation safety letter and was reading it, it suddenly dawned on me why not speak to you people about it.

This is not to squeal on any one, its just to set me at ease, I suppose as to what I as a private pilot should have done if anything. I should also add I am a nothing pilot only about 500 hrs, single engine and own my own machine.

I will tell you what happened as I can recall it happening quite clearly, so you know by what I say it can be retraced by going back to the tapes which the D.O.T would have.

While cleaning and checking over my aircraft I heard a DC6 start up just a little ways ahead of where I parked my aircraft. I had my portable radio tuned to ground freq.

They got all four engines fired up quite normally, then the pilot taxied out on approximately a 180° turn and stopped where they put on a fire retardant chemical as the DC6 was converted for fighting forest fires, and was on a mission to drop the retardent on a fire approximately 150 miles away. The pumping on of the retardent took I suppose about 10 minutes which gave the capt & crew a good cock pit check I am sure. When this was completed he asked for a radio check and [illegible] and he was cleared to runway 18. He started his turn toward 18 and had to stop and wait for some time for a Cessna 337 sitting in front of him doing his check. The DC6 finally asked ground how long the 337 would be indicating to me he was anxious to go, ground informed him the 337 had just started to move out for 18, and indeed it took off shortly on 18.

Ground informed the DC6 he had to do his run up on runway 12 to which he replied this will just be a short run up, ground replied you will have to go to 12 anyway and do your run up

doing a 180° turn on 12 facing back at me as he did his run up.

He was right about the length of run up it was very short, he got clearance from the tower for a take off on 18 and started his taxing. He rolled on to 18 and immediately poured the coal to it.

This is where I came in to it, as he started his run it was very evident to me that one motor was very rough and to my thoughts putting out very little, I recognized this from sound but as he got going down further it started to cough and belch out smoke intermittently. I can even tell you what one it was it was the inboard on the right side. This bothered me so much that I came out from under the wing of my own plane and said right out loud don't go dont go, which I meant in my mind for the capt. to abort. (I confess also at this point that I was talking to myself which you can judge me for yourself.)

He made it off 18 with not much room in my judgement from where I stood, as he climbed out and did a easy left turn I thought he would never get 1000' let alone the alt.

he would need for his intended mission.
He called back a while later saying to the tower he was changing to co. frequency.
This was friday afternoon. I went home some time later to my family, and told my wife the whole sequence as I was so concerned about it.
Then early sat. morning we as a family headed out to the airport for our sat outing in the plane. I went to the radio range to file a flight plan for Tofino and overhead two men talking of a plane crash. I asked if a DC6 had crashed and they said yes and one of the men showed me the article in the morning paper. This was the very DC6 and crew I had watched the afternoon before. I haden't heard a news cast of any kind and of all the aircraft flying in oure area I knew It would be the DC6 that went down.
I found out after this it was a real experinced capt. on DC6's he had an engineer on board and a young crew member.
Now Im sorry for the lengthy letter but question.

1. What is a private pilot's responsibility to do in a case like this?

2. Should I have called the tower or ground and told them my thoughts?

3. Should I have gone over to the co. office of the DC6 and told them?

4. Why didn't the Capt. & engineer read on instruments the problem?

5. If they didn't read the problem on take off then why did they not know the problem or a problem from the take off run or climb out? etc. etc. etc.

I can see many problems in my 500 hr single eng. exp. or non experance getting through to some of these people in viewing my thoughts, yet I can remember saying to my wife I wonder if the DC6 will ever get back tonight, and of course it didn't but never knew that three men went to their deaths. I couldn't help but feeling very upset the morn I read the paper and since.

You don't need to print any of this but I would appreciate a reply if you get time.

Hope this makes sense.

s.19(1)

Yours truly

[redacted]

5002-P40069
5008-PWA
5802-5615
August 6 74

C A I, OTTAWA

PCAI 152. AIRCRAFT ACCIDENT REPORT P40069.

(A.) DOUGLAS DC6B, CF-PWA.

(B.) CONAIR AVIATION LTD., P. O. BOX 220, ABBOTSFORD, B. C.

(C.) JAMES FEWELL, 32687 [redacted] HUNTINGTON RD., ABBOTSFORD, B. C.

(D.) AUGUST 2, 1974 at 16:20 P. S. T.

(E.) ABBOTSFORD, B. C. TO FOREST FIRE 35 MILES SOUTHWEST OF KAMLOOPS, B.C.

(F.) 35 MILES SOUTHWEST OF KAMLOOPS, B. C. 50° 37' N 121° 12' W.

(G1) THREE/NONE.

(G2) NONE/NONE.

(H.) PILOT ABORTED BOMBING RUN THEN ATTEMPTED TO TURN IN NARROW VALLEY AND AIRCRAFT STRUCK MOUNTAIN SIDE AND BURNED. AIRCRAFT DESTROYED. COMMERCIAL FLIGHT. DZUS INVESTIGATING.

P C A I, VANCOUVER

(152)

5008 - PWA
5802 - 5615

AIRCRAFT ACCIDENT/~~INCIDENT~~ REPORTED at 1645 HRS PST on 2 AUG 74

BY _____ INFORMATION TAKEN BY _____

TELEPHONE NO. _____

(A) Type, model, nationality and Registration marks of A/C.	DOUGLAS DC 6B. CF-PWA TANKER 441
(B) Name and address of Owner, Operator and Hirer, if any, of the A/C.	CONAIR AVIATION LTD., ABBOTSFORD, B.C.
(C) Name and address of the Pilot-in-command.	CAPTAIN - JAMES FEWELL 32687 HUNTINGTON RD. 3 ABBOTSFORD, B.C. 1ST OFFICER - PHILLIP CLACK. CREW MAN - WILLIAM SAMELUK.
(D) Date and time - standard time, of the accident/incident.	2 AUG 74 1620 PST.
(E) Last point of departure and point of intended landing of A/C.	ABBOTSFORD B.C. TO FOREST FIRE 35 MILES SOUTHWEST OF KAMLOOPS, B.C.
(F) Position of the A/C with reference to some easily defined geographical point, and latitude and longitude.	35 MILES SOUTHWEST OF KAMLOOPS, B.C. 5037N 12112W
(G1) Number of crew killed and number seriously injured.	3 KILLED / NONE.
(G2) Number of passengers, number killed and number seriously injured.	NONE / NONE.
(H) Nature of the accident/incident and the extent of damage to the aircraft so far as is known. Type of flying. Opinion concerning the cause of the accident/incident.	PILOT ABORTED BOMBING RUN THEN ATTEMPTED TO TURN IN NARROW VALLEY AND AIRCRAFT STRUCK MOUNTAIN SIDE AND BURNED. AIRCRAFT DESTROYED. COMMERCIAL FLIGHT. DRUG INVESTIGATING.

(J) Physical characteristics of the accident area (foreign registered aircraft).

Altitude 5000 ft Accessible by AIR.

Mountainous ✓ Precipitous _____

Level _____ Lake _____ Sea _____

Open _____ Wooded ✓

Heavily timbered _____

CLASSIFIED -

Accident [✓] Incident [ ] [L Lapland] [ ]

AA-6

16:45 PST on 2/8/74

AIRCRAFT ACCIDENT/INCIDENT REPORTED

(Time and Date)

COPY FOR: PRA
PCA
PCAM
PCAR
PCAE PCAW PAT PAO
PTE AES

FILES: 5002-PL0069
5003-PWA
5802-5615

PCAI 152 AIRCRAFT ACCIDENT/INCIDENT REPORT	
(A) Type, nationality and registration marks of aircraft.	DOUGLAS DC6B, CF-PWA.
(B) Name of owner, operator and hirer, if any, of the aircraft.	CONAIR AVIATION LTD., P. O. BOX 220, ABBOTSFORD, B. C.
(C) Name of Pilot-in-Command.	JAMES FENELL, 32687 HUNTINGTON RD., ABBOTSFORD, B. C.
(D) Date and time - Standard time - of the accident/incident.	AUGUST 2, 1974 16:20 P. S. T.
(E) Last point of departure and point of intended landing of aircraft.	ABBOTSFORD, B. C. TO FOREST FIRE 35 MILES SOUTHWEST OF KAMLOOPS, B. C.
(F) Location of the accident with reference to some easily defined geographical point.	35 MILES SOUTHWEST OF KAMLOOPS, B. C. 50° 37' N 121° 12' W.
(G1) Number of Crew/killed and/or seriously injured.	THREE/NONE.
(G2) Number of passengers/killed and/or seriously injured.	NONE/NONE.
(H) Nature of the accident/incident and the extent of damage to the aircraft so far as is known. Type of flying. Opinion concerning the cause of the accident/incident.	PILOT ABORTED BOMBING RUN THEN ATTEMPTED TO TURN IN NARROW VALLEY AND AIRCRAFT STRUCK MOUNTAINSIDE AND BURNED. AIRCRAFT DESTROYED. COMMERCIAL FLIGHT. DZUS INVESTIGATING.

COCKPIT

EMERG AIR RELEASE VALVE

HIGH PRESSURE AIR ACCUMULATOR NO.2

PLUG

DRAIN

SYSTEM PRESSURE REGULATOR

HIGH PRESSURE RELIEF

HIGH PRESS AIR ACCUMULATOR NO. 1

EMERGENCY

NORMAL

DRAIN

GROUND SERVICE FITTING

CHECK VALVE

EMERGENCY AIR ACCUMULATOR

DRAIN

EMERGENCY PRESS SWITCH

LOW PRESS WARNING SWITCH

HIGH PRESS SWITCH

AIR PUMP NO. 1

AIR PUMP NO. 2

HIGH PRESSURE GAUGE

REGULATED AIR GAUGE

EMERGENCY AIR GAUGE

AIR PACKAGE

RIGHT FRONT BULKHEAD

NORMAL

EMERG

OPEN

OPEN

RIGHT AFT BULKHEAD

4-WAY VALVE

NORMAL

EMERG

EXHAUST #50 BLEED

CHECK VALVE

MOMENTARY BLEED VALVE #75 ORIFICE

#80 BLEED

OPEN

OPEN

ACTUATING AIR CYLINDER

EXHAUST PORT

PRESSURE PORT

CYLINDER UPPER PORT

CYLINDER LOWER PORT

4-WAY VALVE SCHEMATIC (REF)

RESERVOIR

NORMAL

EMERG

OPEN

OPEN

LEFT FRONT BULKHEAD

LEFT AFT BULKHEAD

(A) 1/4 TUBING

(B) 3/8 TUBING

(C) AEROQUIP 303-4 FLEXIBLE HOSE

CONAIR AVIATION LTD.
ABBOTSFORD AIRPORT
ABBOTSFORD B.C. CANADA

AIR SYSTEM SCHEMATIC-DC-6B

3103	DC-6B	DRAWN AF	DATE 7-72
NEXT ASSY	USED ON	CHECKED	
APPLICATION		STRESS	7-18-72
		APPD D. Wilson Winters	7-21-72

5101

SCALE NONE SH 1 OF

000117

Appendix 5:

WEIGHT & BALANCE REPORT - CF-PWA

Item	Weight	Arm	Moment
Empty A/C	55,769	412.9	23,028,555
Oil & ADI	1,341	380	508,785
Fuel	11,152	462	5,133,744
Passengers	165	425	70,125
Baggage	3,300	425	1,402,500
Retartant	25,000	490	12,250,000
Crew	305	55	16,775
	96,690		42,410,484

$$\text{C of G} = \frac{42,410,484}{96,690} = 438.62$$

Appendix 6:

DEPARTMENT OF TRANSPORT
CIVIL AVIATION BRANCH

AIRPORT TRAFFIC CONTROL ACCIDENT REPORT

ABBOTSFORD AIRPORT

NAME OF PILOT-IN-COMMAND IN FULL
CAPTAIN FEWELL

PILOT'S LICENCE NUMBER

TYPE OF AIRCRAFT	REGISTRATION
DC6B	CF-PWA

NAME OF OWNER OF THE AIRCRAFT	OPERATOR	HIRER
CONAIR AVN. LTD.		

DATE OF ACCIDENT	TIME
AUGUST 2, 1974	

LAST POINT OF DEPARTURE OF AIRCRAFT	LAST POINT OF INTENDED LANDING
ABBOTSFORD	

POSITION OF THE AIRCRAFT WITH REFERENCE TO SOME EASILY DEFINED GEOGRAPHICAL OR TOPOGRAPHICAL FEATURE

NUMBER OF PERSONS KILLED	NUMBER SERIOUSLY INJURED

NATURE OF ACCIDENT AND THE APPARENT EXTENT OF DAMAGE TO THE AIRCRAFT

TYPE OF FLYING (PRIVATE, NON-SCHEDULED, FERRY, ETC.)
FIREFIGHTING - WATERBOMBING

OPINION AS TO THE CAUSE OF THE ACCIDENT
NONE

INDICATE RADIO INSTRUCTIONS OR VISUAL SIGNALS GIVEN TO THE AIRCRAFT PRIOR TO THE ACCIDENT

GIVE A BRIEF ACCOUNT OF THE ACCIDENT

In carrying out my duties as ground controller I gave the aircraft normal taxi instructions for the active runway 13. I watched the aircraft take off and climb out normally. No unusual noise or smoke was observed; the departure appeared routine.

Sept. 9, 74	Doug Holloway	11/9/74	W. J. Wares
DATE	AIRPORT ~~CONTROLLER~~ GROUND	DATE	UNIT CHIEF

28-0001
6-65

THE REVERSE SIDE OF THIS FORM MAY BE USED FOR ADDITIONAL INFORMATION AND SKETCH

Appendix 6:

DEPARTMENT OF TRANSPORT
CIVIL AVIATION BRANCH

AIRPORT TRAFFIC CONTROL ACCIDENT REPORT

ABBOTSFORD, B.C. (102) AIRPORT

NAME OF PILOT-IN-COMMAND IN FULL
(NOT AVAILABLE)

PILOT'S LICENCE NUMBER
(NOT AVAILABLE)

TYPE OF AIRCRAFT	REGISTRATION
DOUGLAS DC-6B	CF-PWA

NAME OF OWNER OF THE AIRCRAFT	OPERATOR	HIRER
CONAIR AVIATION LTD., ABBOTSFORD	CONAIR AVIATION	(NOT AVAILABLE)

DATE OF ACCIDENT	TIME
2 AUGUST 1974	(NOT AVAILABLE)

LAST POINT OF DEPARTURE OF AIRCRAFT	LAST POINT OF INTENDED LANDING
ABBOTSFORD (PRESUMABLY)	UNKNOWN

POSITION OF THE AIRCRAFT WITH REFERENCE TO SOME EASILY DEFINED GEOGRAPHICAL OR TOPOGRAPHICAL FEATURE
(NOT AVAILABLE)

NUMBER OF PERSONS KILLED	NUMBER SERIOUSLY INJURED
(NOT AVAILABLE)	(NOT AVAILABLE)

NATURE OF ACCIDENT AND THE APPARENT EXTENT OF DAMAGE TO THE AIRCRAFT
(NOT AVAILABLE)

TYPE OF FLYING (PRIVATE, NON-SCHEDULED, FERRY, ETC.)
FIRE SUPPRESSION

OPINION AS TO THE CAUSE OF THE ACCIDENT

INDICATE RADIO INSTRUCTIONS OR VISUAL SIGNALS GIVEN TO THE AIRCRAFT PRIOR TO THE ~~ACCIDENT~~ TAKE-OFF
ROUTINE DEPARTURE INSTRUCTIONS

GIVE A BRIEF ACCOUNT OF THE ACCIDENT
PWA DEPARTED ABBOTSFORD IN ROUTINE MANNER FOR A/C TYPE.
(ALTHOUGH ACCIDENT DID NOT OCCUR AT ABBOTSFORD
THIS REPORT SUBMITTED AT REQUEST OF ACCIDENT
INVESTIGATOR)
NO UNUSUAL CIRCUMSTANCES OBSERVED DURING TAKE-OFF.
WEATHER AT DEPARTURE TIME (2239): 2200Z- O 30 E3/62 20/06
002

9/9/74	[signature]	11/9/74	W.J. Wanless
DATE	AIRPORT CONTROLLER	DATE	UNIT CHIEF

28-0001
6-65

THE REVERSE SIDE OF THIS FORM MAY BE USED FOR ADDITIONAL INFORMATION AND SKETCH

000120

CONAIR AVIATION LTD. FEBRUARY 19, 1974

DC-6B TRAINING - 1974

EACH PILOT WILL RECEIVE THE APPROVED GROUND SCHOOL COURSE AND WRITE AN EXAMINATION ON IT'S COMPLETION. A PASS MARK OF 70% IS REQUIRED.

EACH PILOT WILL RECEIVE THE APPROVED DC-6B SIMULATOR COURSE AT THE NORTHERN ALBERTA INSTITUTE OF TECHNOLOGY, EDMONTON, ALBERTA.

EACH PILOT WILL RECEIVE A MINIMUM OF FOUR HOURS TRAINING IN A STATIC AIRCRAFT IN NORMAL AND EMERGENCY PROCEDURES AS CONTAINED IN CONAIR OPERATIONS MANUAL 12.1.7-9 AND 10. DURING SUCH INSTRUCTION, EACH TRAINEE WILL OCCUPY THE SEAT FOR WHICH HE IS BEING TRAINED. PILOTS ARE TO BE FAMILIAR WITH AND CARRY OUT EACH EMERGENCY PROCEDURE DRILL AND COMMIT PHASE I TO MEMORY. INSTRUCTIONAL TIMES ARE TO BE RECORDED.

MONITORED BY A MUTUAL PARTNER, EACH PILOT WILL BE REQUIRED TO TOUCH AND EXPLAIN BRIEFLY THE PURPOSE OF EACH ITEM IN THE COCKPIT.

CHECK LISTS WILL BE USED FOR ALL PHASES OF FLIGHT. A COMPLETE PRE-FLIGHT AND GEOGRAPHIC CHECK WILL BE CARRIED OUT PRIOR TO EACH FLIGHT.

A COMPLETE PRE-TAKEOFF BRIEFING, IN THE APPROVED FORMAT, WILL BE GIVEN BY THE INDIVIDUAL AT THE CONTROLS PRIOR TO EACH TAKEOFF.

WHEN ON BOARD, THE INSTRUCTOR WILL BE PILOT-IN-COMMAND. IN HIS ABSENCE, THE OCCUPANT OF THE LEFT SEAT WILL BE PILOT-IN-COMMAND.

ALL CAPTAIN TRAINING WILL BE CONDUCTED WITH THE TRAINEE IN THE LEFT SEAT.

ALL FIRST OFFICER TRAINING WILL BE CONDUCTED WITH THE TRAINEE IN THE RIGHT HAND SEAT.

"SOLO", REFERRED TO IN THE TRAINING EXERCISES MEANS ALL FLYING OTHER THAN DUAL.

CONAIR AVIATION LTD.

DC-6B BEFORE TAKEOFF BRIEFING

AT THIS WEIGHT,_____LBS., V_1 IS _____KTS.,

AND V_2 IS_____KTS.

I WILL TAKE THE POWER UP TO 30 INCHES ON THE BRAKES. WE WILL MONITOR TEMPERATURES AND PRESSURES AND CALL OUT ANY MALFUNCTIONS.

I WILL ASK FOR DRY POWER (52INCHES). YOU WILL MONITOR ENGINE INSTRUMENTS AND CALL "WATER-IN".

I WILL ASK FOR WET POWER (59 INCHES), YOU WILL CALL 60 KTS., V_1 AND V_2. YOU WILL RAISE UNDERCARRIAGE AND FLAPS, ON MY COMMAND, AND ADVISE "SELECTED", AND CALL WHEN "UP".

IN THE EVENT OF AN ENGINE FAILURE BEFORE V_1, WE WILL ABORT. AFTER V_1 WE WILL CONTINUE THE TAKEOFF. I WILL FLY THE AIRCRAFT AND WE WILL IDENTIFY THE FAILURE.

I WILL CALL OUT PHASE ONE - YOU WILL DO IT.

I WILL ASK YOU TO CALL OUT PHASE TWO AND CARRY IT OUT. YOU WILL CARRY OUT SUBSEQUENT PHASES AND COMPLETE THE CHECK LIST, AND ADVISE WHEN COMPLETED.

CALL ALL ALTITUDES 1000 FEET BEFORE REACHING. CALL ALL NAVAIDS ALIVE.

ANY QUESTIONS.

CONAIR AVIATION LTD.

DC-6B FLIGHT TRAINING EXERCISES - 1974

RECURRENCY TRAINING

DUAL - 1 HOUR	SOLO - 1 HOUR
EXERCISE I	EXERCISE II

FIRST OFFICER TO CAPTAIN

DUAL - 3 HOURS	SOLO - 2 HOURS
EXERCISE III, IV, V.	EXERCISE VI, II.

FIRST OFFICER

DUAL - 3 HOURS	SOLO - 2 HOURS
EXERCISE VIII, IX, X.	EXERCISE VI, XIII.

EXERCISE I - DUAL

EXTERNAL, GEOGRAPHIC, BRIEFING,
TAKEOFF - WET - AUTO FEATHER
CIRCUIT - FULL FLAP - TOUCH & GO
ENGINE CUT AT V_2
VISUAL CIRCUIT ON 3 ENGINES. RESTORE ON DOWNWIND LEG
SIMULATED 3 ENGINE LANDING.
TOUCH & GO
HOOD AT 200 FEET
CLIMB TO 4500 FEET
STEEP TURNS (60°)
APPROACH TO STALL - 2 CONFIGURATIONS
SIMULATED 2 ENGINE LANDING AT 2500 FEET
APPROACH XX ON PREDETERMINED HEADING
HOLD (ENTRY ONLY) PROCEED OUTBOUND (ILS)
CUT CRITICAL ENGINE OUTBOUND (SIM)
ILS - 3 ENGINE TO MINIMUMS
OVERSHOOT ON 4 AT 50 FEET
CIRCLE VISUAL TO LAND - FLAPLESS
FULL STOP - REVERSE

EXERCISE II - SOLO (PROFICIENCY CHECK)

EXTERNAL, GEOGRAPHIC, RUNUP, BRIEFING
INSTRUMENT TAKEOFF - SIMULATE INSTRUMENT CONDITIONS BY 100 FEET.
ENGINE FIRE DURING CLIMB OUT.
RESTORE ENGINE AND CLIMB TO 4000 FEET
STEEP TURNS (60°) LEFT AND RIGHT
APPROACHES TO STALLS (2)
PROCEED TO XX ON PREDETERMINED HEAD.
ENTRY TO HOLDING PLUS ONE RACETRACK
SIMULATED ENGINE FAILURE IN HOLD
THREE ENGINE ILS TO 200 FEET RESTORE ENGINE
TOUCH & GO - ENGINE CUT AT V_2 (NO. 1)
MISSED APPROACH TO ADF - 3 ENGINE TO CIRCLING LIMITS
RESTORE ENGINE - CIRCLING APPROACH
OVERSHOOT AT 50 FEET - HYDRAULIC FAILURE AT 1000 FEET
DEMONSTRATE PROCEDURES FOR GEAR, FLAPS AND BRAKES.
FULL STOP LANDING - REVERSE.

EXERCISE III - DUAL

EXTERNAL GEOGRAPHIC BRIEFING
TAKEOFF - DRY
CIRCUIT TO FULL FLAP, FULL STOP, LANDING
TAKEOFF - WET
CIRCUIT TO 30° FLAP, FULL STOP, REVERSE
TAKEOFF DRY, ENGINE CUT AT V_2
CIRCUIT FOR 3 ENGINE LANDING - TOUCH AND GO
NORMAL CIRCUIT - FLAPLESS LANDING - REVERSE

EXERCISE IV - DUAL

EXTERNAL, GEOGRAPHIC, BRIEFING (IF APPLICABLE)
TAKEOFF DRY (CROSSWIND)
CLIMBS AND TURNS TO 4500 FEET
TURNS WITH AND WITHOUT FLAP (UP TO 60°)
APPROACH TO STALLS - 2 CONFIGURATIONS
ENGINE SHUT DOWN AND RESTART
SIMULATED TWO ENGINE LANDING AT 2500 FEET
CRUISE PROCEDURES
VFR APPROACH TO AIRPORT
SIMULATED 3 ENGINE LANDING - FULL STOP - NO REVERSE

EXERCISE II - SOLO (PROFICIENCY CHECK)

EXTERNAL, GEOGRAPHIC, RUNUP, BRIEFING
INSTRUMENT TAKEOFF - SIMULATE INSTRUMENT CONDITIONS BY 100 FEET
ENGINE FIRE DURING CLIMB OUT
RESTORE ENGINE AND CLIMB TO 4000 FEET
STEEP TURNS (60°) LEFT AND RIGHT
APPROACHES TO STALLS (2)
PROCEED TO XX ON PREDETERMINED HEAD.
ENTRY TO HOLDING PLUS ONE RACETRACK
SIMULATED ENGINE FAILURE IN HOLD
THREE ENGINE ILS TO 200 FEET RESTORE ENGINE
TOUCH & GO - ENGINE CUT AT V_2 (NO. 1)
MISSED APPROACH TO ADF - 3 ENGINE TO CIRCLING LIMITS
RESTORE ENGINE - CIRCLING APPROACH
OVERSHOOT AT 50 FEET - HYDRAULIC FAILURE AT 1000 FEET
DEMONSTRATE PROCEDURES FOR GEAR, FLAPS AND BRAKES.
FULL STOP LANDING - REVERSE.

EXERCISE III - DUAL

EXTERNAL GEOGRAPHIC BRIEFING
TAKEOFF - DRY
CIRCUIT TO FULL FLAP, FULL STOP, LANDING
TAKEOFF - WET
CIRCUIT TO 30° FLAP, FULL STOP, REVERSE
TAKEOFF DRY, ENGINE CUT AT V_2
CIRCUIT FOR 3 ENGINE LANDING - TOUCH & GO
NORMAL CIRCUIT - FLAPLESS LANDING - REVERSE

EXERCISE IV - DUAL

EXTERNAL, GEOGRAPHIC, BRIEFING (IF APPLICABLE)
TAKEOFF DRY (CROSSWIND)
CLIMBS AND TURNS TO 4500 FEET
TURNS WITH AND WITHOUT FLAP (UP TO 60°)
APPROACH TO STALLS - 2 CONFIGURATIONS
ENGINE SHUT DOWN AND RESTART
SIMULATED TWO ENGINE LANDING AT 2500 FEET
CRUISE PROCEDURES
VFR APPROACH TO AIRPORT
SIMULATED 3 ENGINE LANDING - FULL STOP - NO REVERSE

EXERCISE V - DUAL

EXTERNAL, GEOGRAPHIC, BRIEFING
TAKEOFF DRY HOOD AT 100 FEET
SIMULATED ENGINE FIRE - RESTORE
CLIMB AND CLIMBING TURNS TO 3000 FEET
APPROACH XX ON PREDETERMINED HEADING
HOLDING ENTRY PLUS ONE RACETRACK
SIMULATED ENGINE FAILURE OUTBOUND (ILS)
ILS APPROACH - RESTORE ENGINE AT 300 FEET
OVERSHOOT VISUAL AT 50 FEET
MISSED APPROACH PROCEDURE FOR ADF
SIMULATED 3 ENGINE APPROACH TO CIRCLING
VISUAL CIRCLING APPROACH TO LANDING
FULL STOP - REVERSE

EXERCISE VI - SOLO

EXTERNAL, GEOGRAPHIC, BRIEFING
TAKEOFF DRY (CROSSWIND)
CLIMBS AND TURNS TO 4500 FEET
STEEP TURNS LEFT AND RIGHT (60°BANK)
ENGINE SHUTDOWN AND RESTART
ILS APPROACH CLEAR HOOD
TOUCH AND GO
NORMAL CIRCUIT TO LANDING - REVERSE

EXERCISE VII - SOLO

EXTERNAL, GEOGRAPHIC, BRIEFING
TAKEOFF DRY - SIMULATE INSTRUMENTS 200 FEET
APPROACH AT VR AND XX UNDER HOOD
OVERSHOOT XX CLEAR HOOD AT 50 FEET
CIRCLE AND LAND (CROSSWIND)

EXERCISE VIII - DUAL

EXTERNAL, GEOGRAPHIC, BRIEFING
TAKEOFF DRY, CIRCUIT, FULL FLAP, FULL STOP
TAKEOFF WET, CIRCUIT, FULL FLAP, REVERSE
TAKEOFF DRY, CIRCUIT, 30°FLAP, TOUCH AND GO
CIRCUIT, ZERO FLAP, REVERSE

EXERCISE IX - DUAL

TAKEOFF DRY
CLIMB AND CLIMBING TURNS TO 4500 FEET
CRUISE PROCEDURES
TURNS WITH AND WITHOUT FLAP TO 60°
MANOEUVRES AT SLOW SPEED
APPROACH TO STALL 3 CONFIGURATIONS
ENGINE SHUTDOWN AND RESTART
SIMULATED LANDING AT ALTITUDE - 2 ENGINES
VFR APPROACH - X FEED ENROUTE
SIMULATED 3 ENGINE LANDING
FULL STOP - REVERSE

EXERCISE X - DUAL

EXTERNAL, GEOGRAPHIC, BRIEFING
TAKEOFF DRY, SIMULATED ENGINE FAILURE V_2
3 ENGINE CIRCUIT AND LANDING - TOUCH AND GO
SIMULATED ENGINE FIRE AT 200 FEET
CLIMB TO 2500 FEET - XX BEACON - HOLD
ILS APPROACH - SIMULATED ENGINE FAILURE OUTBOUND
TOUCH AND GO - ENGINE CUT V_2 - RESTORE
MISSED APPROACH PROCEDURE TO XX BEACON
ADF APPROACH ON 3 ENGINES (SIM)
DESCEND TO CIRCLING MIN. - RESTORE ENGINE
CIRCLING APPROACH - FULL STOP - REVERSE

EXERCISE XI - DUAL

EXTERNAL, GEOGRAPHIC, BRIEFING
TAKEOFF WET - HOOD AT 200 FEET
CLIMB AND TURNS TO 4500 FEET
STEEP TURNS - LEFT AND RIGHT (60°)
STALLS IN 2 CONFIGURATIONS
PROCEED TO XX ON PREDETERMINED HEADING
ENTRY TO HOLD AND ONE RACETRACK
SIMULATE ENGINE FAILURE - ILS OUTBOUND
ILS TO MINIMUM - RESTORE ENGINE - GO VISUAL
OVERSHOOT AT 50 FEET - MISSED APPROACH
HOOD AT 200 FEET - SIMULATED FAILURE NO. 1
ADF APPROACH TO CIRCLING - RESTORE
VISUAL CIRCLING APPROACH SIMULATING U/C HYDRAULIC FAILURE
FULL STOP - NO REVERSE

EXERCISE XII - SOLO

EXTERNAL, GEOGRAPHIC, BRIEFING
TAKEOFF WET - CLIMB TO 4500 FEET
STEEP TURNS -- 360° LEFT AND RIGHT
ENGINE SHUT DOWN AND RESTART
SLOW FLIGHT AND TURNS WITH AND WITHOUT FLAP
LOWER HOOD - PROCEED TO XX ON PREDETERMINED HEAD.
ENTRY TO HOLD - ONE RACETRACK
ILS APPROACH - TOUCH AND GO
CIRCLING APPROACH - FULL STOP - REVERSE

EXERCISE XIII - SOLO (PROFICIENCY CHECK)

EXTERNAL, GEOGRAPHIC, RUNUP, BRIEFING
TAKEOFF DRY - INSTRUMENT CONDITIONS BY 100 FEET
ENGINE FIRE DURING CLIMBOUT
RESTORE ENGINE AND CLIMB TO 4000 FEET
STEEP TURNS (60°) LEFT AND RIGHT
APPROACH TO STALL (2 CONFIGURATIONS)
HOME TO XX ON PREDETERMINED HEADING
ENTRY TO HOLD PLUS ONE RACETRACK
SIMULATED ENGINE FAILURE IN THE HOLD
THREE ENGINE ADF TO CIRCLING LIMITS
RESTORE ENGINE - CIRCLING APPROACH - VISUAL
FULL STOP LANDING

EXERCISE XIV - I.N.S. TRAINING

NOTE:

SOLO MEANS ALL OTHER THAN DUAL

WHEN ON BOARD, THE INSTRUCTOR WILL BE PILOT-IN-COMMAND. IN HIS ABSENCE, THE OCCUPANT OF THE LEFT SEAT WILL BE PILOT - IN - COMMAND.

ALL CAPTAIN TRAINING WILL BE CONDUCTED WITH THE TRAINEE IN THE LEFT SEAT.

ALL FIRST OFFICER TRAINING WILL BE CONDUCTED WITH THE TRAINEE IN THE RIGHT SEAT.

DEPARTMENT OF TRANSPORT
MINISTÈRE DES TRANSPORTS

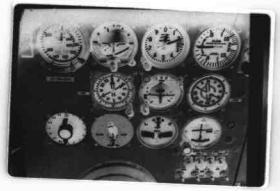
IF UNDELIVERED RETURN TO POINT OF MAILING
EN CAS DE NON-LIVRAISON RENVOYER À L'EXPÉDITEUR
OFFICE AT 739 West Hastings St.
BUREAU DE Vancouver 1, B.C.
02-0045 (65)

ON HER MAJESTY'S SERVICE
SERVICE DE SA MAJESTÉ

CANADA
POSTAGE PAID
PORT PAYÉ

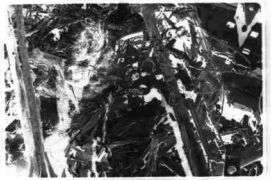
Spare Slides

C.F.-P.W.A.











McLEAN VU-FILE
No. BL-20 — DISTRIBUTOR
KINDERMANN (CANADA) LTD

Transport Canada Air | Transports Canada Air

AIRCRAFT ACCIDENT REPORT
RAPPORT D'ACCIDENT D'AVIATION

SEP 16 75

"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".

P40069 Douglas DC 6B CF-PWA

DATE: 2 August 74 1625 PST
OPERATION: Specialty - AC DAMAGE: Destroyed
PLACE: 8 mi SSE Asheroft, B.C. 50/37N 121/13W
LOCALE: Bush
WEATHER: Sky clear, vis 15, temp 89, wind light
PILOT: Sr. Commercial

TOTAL HOURS:	9800	ALL	2740	ON TYPE
LAST 90 DAYS:	51	ALL	24	ON TYPE

CASUALTIES: Crew: 3 Killed
OCCURRENCE: After a water bombing run, the pilot aborted and started a left climbing turn towards rising terrain. During the turn the aircraft stalled and struck the ground; it was completely destroyed by impact and fire.

SPAN ANALYSIS (CONFIDENTIAL) CODED: ASIO 7

1WX The pilot turned toward rising terrain which the heavily loaded aircraft could not outclimb.

1SX The pilot selected a poor climbout path.

7WX The pilots did not drop the fire retardant load when they noticed the airspeed decaying and terrain clearance became doubtful. Also (1WX)

7W This carrier has had numerous accidents during the last two years. This indicates to inadequate training, poor operational control and low operating standards.

7M The MOT did not adequately monitor and enforce the provisions of ANO Series 7 No. 2 with this carrier.

SAFETY PROPOSAL

The carrier be more closely monitored by the MOT to assure that pilots, working in mountainous areas, are given adequate training on aircraft performance, and instructed to drop their loads when terrain clearance becomes critical.

ASR ACTION

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".

P40069 Douglas DC 6B CF-PWA

DATE: 2 August 74 1625 PST
OPERATION: Specialty - AC DAMAGE: Destroyed
PLACE: 8 mi SSE Ashcroft, B.C. 50/37N 121/13W
LOCALE: Bush, 5000' asl
WEATHER: Sky clear, vis 15, temp 27°C, wind light
PILOT: Airline Transport

TOTAL HOURS:	9800	ALL	2740	ON TYPE
LAST 90 DAYS:	51	ALL	24	ON TYPE

CASUALTIES: Crew: 3 killed
OCCURRENCE: The pilot aborted a water bombing run and started a left climbing turn toward rising terrain. During the turn the aircraft stalled and struck the ground; it was destroyed by impact and fire. The load had not been jettisoned.

The aircraft had departed from Abbotsford Airport at 1439 PST, with two pilots and a mechanic on board. It was loaded with 25,000 lbs of fire retardant and 3,300 lbs of spare parts. The purpose of the flight was to establish an operational base at Kamloops, B.C., and to drop a load of retardant on a fire enroute. The aircraft arrived in the area of the fire at approximately 1620 PST and established radio communication with the "bird dog" aircraft, which was already in the area. The bird dog pilot briefed the crew on the type of drop required, the terrain, the wind, and the exit from the drop area.

The tanker pilot commenced his run and reported on final with the doors armed. Approaching the fire, the bird dog pilot advised him that he was not lined up and should go around. The tanker pilot overshot and started a left climbing turn toward rising terrain. After completing about 180 degrees of the turn, the pilot of the tanker radioed that they were in trouble, and were losing airspeed rapidly. The bird dog pilot saw the tanker in a nose-high attitude and advised him to dump the load; within seconds the left wing of the tanker dropped sharply and it crashed into a wooded slope. The impact and fire were catastrophic.

The tanker pilot had successfully completed a pilot proficiency check, on April 26, 1974. He had participated in the DC-6B fire bombing program from its inception with the company, and had carried out most of the flight tests when the aircraft was being evaluated as a water bomber.

The Co-Pilot held a valid Airline Transport Pilot licence with proper endorsements. He had a total of 9,500 hours flying experience, of which 118 hours were on type. He had recently completed his initial type rating proficiency check for the DC-6B aircraft.

The mechanic was on board for transportation only. He had no duties to perform during this flight.

Several runs were made with another aircraft to retrace the flight path of the water bomber. These runs indicated that the overshoot could have been carried out in the wide valley by returning to the fire area with a right hand circuit. Why the pilot chose a left turn toward rising terrain could not be determined. It is possible that he felt the aircraft would out-climb the slope, and by doing a left turn he would have the fire in sight.

The fire retardant dump system in this aircraft had 3 independent sources of air pressure to operate the doors: 2 normal, and one emergency supply. The emergency system is isolated so that in the event of a malfunction in the normal systems, the load can be dropped with the emergency air supply. The normal system had been armed on the aborted run and would not normally have been turned off on the overshoot. The emergency system operates independently; it is actuated by a red lever on the centre of the glare shield, and does not require arming. The crew therefore had two ways to open all doors and release the load instantaneously. Why this was not done by the pilots, while they were rapidly losing airspeed, was not determined.

The examination of the wreckage did not reveal any failure or malfunction of the engines, airframe or controls. Damage to the propeller blades indicated that all engines were producing substantial power at impact. The severity of the fire in the cockpit area made it impossible to identify all components of the fire retardant tank control system; however, the likelihood of a complete systems failure is remote. One of the dump door actuating cylinders, which was not damaged beyond recognition, indicated that the dump doors were closed at impact.

The 27°C ambient temperature and the altitude probably degraded the heavily loaded aircraft's performance; however, if the pilots had dumped their load as soon as they relized the airspeed was decaying rapidly, it is possible that the aircraft could have out-climbed the rising terrain.

FINDINGS

The pilot selected a poor climbout path toward rising terrain which the heavily loaded aircraft could not out-climb.

The pilots did not jettison the load of fire retardant as soon as they realized they were losing airspeed and could not clear the terrain.

5002 - P40069

ACCIDENT REPORT CF-PWA

	INSP	INSP	CAI	DONE
Ready for Signatures				27.3.75
Ready for Typing				27.2.75
OK return Logs	—		—	—
OK return Files				
Pages 1 & 2 Completed				12.8.74

To CAM Rev. 19.2.75 DLJ.

Completed 7 March 1975

NOTES

To CA 5 Mar. '75

Transport Canada Air / Transports Canada Air

AIRCRAFT ACCIDENT REPORT
RAPPORT D'ACCIDENT D'AVIATION

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FINDINGS

The pilot selected a poor climbout path toward rising terrain which the heavily loaded aircraft could not out-climb.

The pilots did not jettison the load of fire retardant as soon as they realized they were losing airspeed and could not clear the terrain.

5008-FBV

Conair

AERIAL APPLICATION
AND FIRE CONTROL

37165 AUG 14 74

August 8th, 1974.

Ministry of Transport,
Accident Investigation,
739 West Hastings Street,
VANCOUVER, B.C.

Attention: Mr. B. Dzus.

Dear Sir:

Re: Log and Aircraft Records for
Aircraft CF-FBV and CF-PWA

This letter constitutes authority to hand over above mentioned records to agents of our Insurance Company's adjusters, namely Brouwer & Company.

Yours truly,

CONAIR AVIATION LTD.

By: L.G. Kerr,
President and General Manager.

COPY OF
5008-PWA

LGK/mb

P40069

000142

Box 220 Abbotsford, British Columbia, Canada. Phone 853-1171, 526-2435

Government of Canada / Gouvernement du Canada

MEMORANDUM NOTE DE SERVICE

SECURITY - CLASSIFICATION — *DE SÉCURITÉ*	
OUR FILE — *N/RÉFÉRENCE*	5002-P40069
YOUR FILE — *V/RÉFÉRENCE*	
DATE	7 March 1975

TO / *À*

CAI OTTAWA (PCAI)
KIA ON8

FROM / *DE*

PCAI VANCOUVER

SUBJECT / *OBJET*

ACCIDENT - Douglas DC6B, CF-PWA,
8 miles SSE of Ashcroft, B.C.
2 August 1974

1. Attached please find a copy of the completed aircraft accident report for the above subject aircraft. The pilot and two other crew members were killed and the aircraft was destroyed.

2. Please amend your page 2 of the report (sent 13 August 1974) to read; "After completing about 180° of turn....."; instead of 220° of turn.

Original Signed by
C. LEYLAND

C. Leyland
Regional Superintendent
Accident Investigation

lt
enc.

Appendix 6:

DEPARTMENT OF TRANSPORT
CIVIL AVIATION BRANCH

AIRPORT TRAFFIC CONTROL ACCIDENT REPORT

ABBOTSFORD AIRPORT

NAME OF PILOT-IN-COMMAND IN FULL
CAPTAIN FEWELL

PILOT'S LICENCE NUMBER

TYPE OF AIRCRAFT	REGISTRATION
DC6B	CF-PWA

NAME OF OWNER OF THE AIRCRAFT	OPERATOR	HIRER
CONAIR AVN. LTD.		

DATE OF ACCIDENT	TIME
AUGUST 2, 1974	

LAST POINT OF DEPARTURE OF AIRCRAFT	LAST POINT OF INTENDED LANDING
ABBOTSFORD	

POSITION OF THE AIRCRAFT WITH REFERENCE TO SOME EASILY DEFINED GEOGRAPHICAL OR TOPOGRAPHICAL FEATURE

NUMBER OF PERSONS KILLED	NUMBER SERIOUSLY INJURED

NATURE OF ACCIDENT AND THE APPARENT EXTENT OF DAMAGE TO THE AIRCRAFT

TYPE OF FLYING (PRIVATE, NON-SCHEDULED, FERRY, ETC.)
FIREFIGHTING - WATERBOMBING

OPINION AS TO THE CAUSE OF THE ACCIDENT
NONE

INDICATE RADIO INSTRUCTIONS OR VISUAL SIGNALS GIVEN TO THE AIRCRAFT PRIOR TO THE ACCIDENT

GIVE A BRIEF ACCOUNT OF THE ACCIDENT

In carrying out my duties as ground controller I gave the aircraft normal taxi instructions for the active runway 18. I watched the aircraft take off and climb out normally. No unusual noise or smoke was observed; the departure appeared routine.

Sept. 9, 74 — DATE
Doug Holloway — AIRPORT CONTROLLER (GROUND)
11/9/74 — DATE
W. J. Wares — UNIT CHIEF

000144

28-0001
6-65

THE REVERSE SIDE OF THIS FORM MAY BE USED FOR ADDITIONAL INFORMATION AND SKETCH

Appendix 6:

DEPARTMENT OF TRANSPORT
CIVIL AVIATION BRANCH

AIRPORT TRAFFIC CONTROL ACCIDENT REPORT

ABBOTSFORD, B.C. (102) AIRPORT

NAME OF PILOT-IN-COMMAND IN FULL
(NOT AVAILABLE)

PILOT'S LICENCE NUMBER
(NOT AVAILABLE)

TYPE OF AIRCRAFT	REGISTRATION
DOUGLAS DC 6B	CF-PWA

NAME OF OWNER OF THE AIRCRAFT	OPERATOR	HIRER
CONAIR AVIATION LTD., ABBOTSFORD	CONAIR AVIATION	(NOT AVAILABLE)

DATE OF ACCIDENT	TIME
2 AUGUST 1974	(NOT AVAILABLE)

LAST POINT OF DEPARTURE OF AIRCRAFT	LAST POINT OF INTENDED LANDING
ABBOTSFORD (PRESUMABLY)	UNKNOWN

POSITION OF THE AIRCRAFT WITH REFERENCE TO SOME EASILY DEFINED GEOGRAPHICAL OR TOPOGRAPHICAL FEATURE
(NOT AVAILABLE)

NUMBER OF PERSONS KILLED	NUMBER SERIOUSLY INJURED
(NOT AVAILABLE)	(NOT AVAILABLE)

NATURE OF ACCIDENT AND THE APPARENT EXTENT OF DAMAGE TO THE AIRCRAFT
(NOT AVAILABLE)

TYPE OF FLYING (PRIVATE, NON-SCHEDULED, FERRY, ETC.)
FIRE SUPPRESSION

OPINION AS TO THE CAUSE OF THE ACCIDENT

INDICATE RADIO INSTRUCTIONS OR VISUAL SIGNALS GIVEN TO THE AIRCRAFT PRIOR TO THE ~~ACCIDENT~~ TAKE-OFF
ROUTINE DEPARTURE INSTRUCTIONS

GIVE A BRIEF ACCOUNT OF THE ACCIDENT
PWA DEPARTED ABBOTSFORD IN ROUTINE MANNER FOR A/C TYPE.
(ALTHOUGH ACCIDENT DID NOT OCCUR AT ABBOTSFORD
THIS REPORT SUBMITTED AT REQUEST OF ACCIDENT
INVESTIGATOR)
NO UNUSUAL CIRCUMSTANCES OBSERVED DURING TAKE-OFF.
WEATHER AT DEPARTURE TIME (2239): 2200Z- O 30 83/62 20/06
002

9/9/74 — DATE
[signature] — AIRPORT CONTROLLER
11/9/74 — DATE
W.J. Wanke — UNIT CHIEF

000145

28-0001
6-65

THE REVERSE SIDE OF THIS FORM MAY BE USED FOR ADDITIONAL INFORMATION AND SKETCH

5002-P40069-1 (CAIO)

CAI
Ottawa, Ontario,
K1A 0N8
February 4, 1975.

Mr. Wallace V. Dubinsky,
Dubinsky Kovanchak Ferris & Ross,
Barristers and Solicitors,
P.O. Box 1197,
Thunder Bay, Ontario.
P7B 5G6

Dear Mr. Dubinsky:

Re: William Samelyk - deceased
Aircraft Accident DC6B, CF-PWA
35 Miles S.W. of Kamloops, B.C.
August 3, 1974

This is in response to your letter of January 28, 1975.

It is not correct that the investigation of the subject accident is completed, however, we have enclosed copies of pages one and two of the preliminary regional report, for your information.

Your interest in this occurrence is recorded and a copy of our report will be forwarded to you as soon as we are able.

Yours truly,

J.H. Nyhuus,
for Chief, Accident Investigation Division,
Civil Aeronautics Branch.

JHN:ld

c.c. PCAI-Vancouver

DEPARTMENT OF TRANSPORT
AIRCRAFT ACCIDENT INVESTIGATION DIVISION

CANADA

REPORT OF THE INQUIRY INTO AN AIRCRAFT

REGIONAL REF. 5002-P140069
H.Q. REF. 500
AIRCRAFT REG. CF-PWA

(1) ACCIDENT [X] DISASTER [ ] INCIDENT [ ]
NEAR MISS [ ] OTHER [ ]

FOR INSTRUCTIONS SEE REVERSE SIDE OF EACH PAGE

AT (Name of nearest gazetted place): 8 miles SSE of Ashcroft
PROVINCE: B. C.
GEOGRAPHIC CO-ORDINATES: 50°37'N 121°12'W
DATE: DAY 2 MONTH August YEAR 1971
TIME (Standard Time Local): 16:25 PST

REGION: PACIFIC [X] WESTERN [ ] CENTRAL [ ] ONTARIO [ ] QUEBEC [ ] ATLANTIC [ ]

PERSONNEL IDENTIFICATION (2)

OWNER
NAME: Conair Aviation Ltd.
ADDRESS: Box 220, Abbotsford, B. C.

OPERATOR
NAME: SAME AS OWNER [X] OR
ADDRESS:
A.T.C. LICENCE CLASSIFICATION THIS FLIGHT
NONE [ ] 4 [ ] 7 RF [ ] 7 AAD [ ] 7 AAM [ ]
1 [ ] 5 [ ] 7 FT [ ] 7 AIRA [ ] 8 [ ]
2 [ ] 6 [ ] 7 AP [ ] 7 AC [X] 9 [ ]
3 [ ] 7 APS [ ] 7 A CONST. [ ]
ATC LICENCE NUMBER: 1907/69 (C)
H.Q. USE OPER. CODE:
STATUS RESPECTIVE TO THIS AIRCRAFT: UNKNOWN [ ] OWNER [X] RENTER [ ] LESSEE [ ]

PILOT IN COMMAND
NAME: SAME AS OWNER [ ] OPERATOR [ ] OR
James Fredrick Fewell
ADDRESS: 32687 Huntingdon Road, R. R. 5, Abbotsford, B. C.
LICENCE NUMBER: VRS 913
STATUS IF NOT OWNER OR OPERATOR: UNAUTHORIZED USER [ ] EMPLOYEE [X] RENTER [ ] BORROWER [ ] CLUB MEMBER [ ] OTHER [ ]
SPECIFY:

OTHER CREW ON BOARD (3)
NONE [ ] THIRD PILOT [ ] FLIGHT ENGINEER [ ] FLIGHT OBSERVER [ ] NO. OF CABIN ATTENDANT (S)
SECOND PILOT [X] NAVIGATOR [ ] CREWMAN [X] TECHNICIAN [ ]

PASSENGERS
NUMBER ON BOARD: NONE

MATERIAL IDENTIFICATION

AIRCRAFT	REGISTRATION	MAKE	MODEL	TOTAL HRS.	MAXIMUM CERT. TAKE-OFF WEIGHT	YEAR OF MANUFACTURE
	CF-PWA	Douglas	DC6B	39,847	97,290	1955

CATEGORY
AEROPLANE [X] GLIDER [ ] VTOL [ ]
HELICOPTER [ ] GYRO COPTER [ ] GYRO GLIDER [ ]
DIRIGIBLE [ ] FREE BALLOON [ ] OTHER [ ]
IF OTHER SPECIFY:

HOME BUILT: YES [ ] NO [X]
ULTRA LIGHT: YES [ ] NO [X]

LANDING GEAR
AMPHIBIOUS (HULL) [ ] FLOATS [ ]
RETRACTABLE WHEELS [X] FIXED WHEELS [ ]
SKI-WHEEL [ ] WHEEL FLOATS [ ]
HULL [ ] SKIDS [ ]
SKIS [ ] FLOAT-SKID [ ]
OTHER [ ] IF OTHER SPECIFY

LANDING GEAR CONFIGURATION
TRICYCLE [X] OTHER [ ]
TAIL WHEEL [ ]

WING/ROTOR
LOW-WING [X] BI-PLANE [ ]
HIGH-WING [ ] MID-WING [ ]
SINGLE-ROTOR [ ] TWIN-ROTOR [ ]
OTHER [ ]

SPECIAL EQUIPMENT
NONE [ ] TOWING GEAR [ ]
AMBULANCE [ ] AIR-DROP (CARGO) [ ]
AIR-DROP (PARACHUTIST) [ ] PHOTO [ ]
MAGNETOMETER [ ] SLING/HOIST [ ]
WATER BOMBING [X] SPRAY DUST [ ]
MONSOON GEAR [ ] OTHER [ ]
IF OTHER SPECIFY:

ENGINE(S) MAKE	MODEL	SERIAL NO.	NUMBER INSTALLED
Pratt & Whitney	R2800-CB16/17	33482, 29210, 27483, 22384	4

TYPE: SUPERCHARGED PISTON [X] PISTON [ ] TURBO-COMPOUND [ ] JET TURBINE WITH AFTERBURNER [ ] TURBO PROP [ ] JET TURBINE [ ] OTHER [ ] IF OTHER SPECIFY

POWER: 1900 RATED H.P. ____ RATED THRUST

PROPELLER(S) MAKE	MODEL	SERIAL NO.
Hamilton Standard	43E60	171979, 181872, 197010, 171977.

TYPE: FIXED WOODEN [ ] FIXED METAL [ ] VARIABLE PITCH [ ] CONSTANT SPEED [ ] CONSTANT SPEED FULLY FEATHERING [X]

SUB-TYPE: REVERSIBLE [X] NOT REVERSIBLE [ ]

ENVIRONMENT IDENTIFICATION (1)

OPERATION

SCOPE THIS FLIGHT: INTERNATIONAL [ ] DOMESTIC [X] NOT KNOWN [ ]

LOAD DESCRIPTION: NONE [ ] PASSENGERS [ ] PARACHUTIST [ ] FREIGHT/EXPRESS [ ] CARGO/PASSENGERS [ ] IF OTHER SPECIFY: PESTICIDES [ ] POLES/TOWERS [ ] WATER/CHEMICAL [X] PHOTO EQUIPMENT [ ] FERTILIZER [ ] FISH/FISH EGGS [ ] SIGN/DROGUE [ ] GLIDER [ ] OTHER [ ]

LOAD POSITION: INTERNAL [X] EXTERNAL [ ] N/A [ ]

OBJECTIVE (2)

ADVERTISING [ ] CONTROL [ ] DEMONSTRATION [ ] FIRE CONTROL [X] HOISTING [ ] INSPECTION [ ] TRANSPORTATION [ ] SURVEY [ ] SPRAY/DUST/SEEDING [ ] SEARCH [ ] RECREATION [ ] TESTING [ ] TOWING [ ] TRAINING [ ] FERRYING [ ] POSITIONING [ ] OTHER [ ] SPECIFY:

PRELIMINARY VERSION OF ACCIDENT (3)

PROVIDE A BRIEF HISTORY OF THE FLIGHT AND NARRATE AS MANY OF THE CIRCUMSTANCES OF THE ACCIDENT AS ARE KNOWN AT THIS TIME, BEGINNING WITH THE FIRST IRREGULARITY OF THE FLIGHT.

The pilot was on a water bombing run but aborted as his direction of flight was not as directed by the "bird dog". He overshot and commenced a left turn towards rising terrain. After completing about 220° of the turn, the aircraft stalled and struck ground in a left wing low, nose down attitude. Impact and fire destroyed the aircraft.

PRELIMINARY POST-OCCURRENCE DATA

AIRCRAFT DAMAGE: NONE [ ] MINOR [ ] SUBSTANTIAL [ ] DESTROYED [X] UNKNOWN [ ]

NUMBER OF CASUALTIES

	KILLED	SERIOUS INJURY	MINOR INJURY	UNINJURED
PILOT-IN-COMMAND	1			
OTHER CREW	2			
PASSENGERS	-			
PERSONS OUTSIDE AIRCRAFT	-			

INVESTIGATION: BY CIVIL AVIATION INSPECTOR(S) ONLY [X] BY CIVIL AVIATION AND AIRWORTHINESS INSPECTORS [ ] BY AIRWORTHINESS INSPECTOR(S) ONLY [ ] BY CORRESPONDENCE [ ] D.N.H.W. ASSISTANCE [ ] TECHNICAL/METALLURGICAL EXAM. [ ]

[illegible] 74

12,816S

5002-P40069-1 (CAIO)

CAI
Ottawa, Ontario,
K1A 0N8
November 26, 1974.

Mr. R. J. Westaway,
Streight & Westaway,
Barristers and Solicitors,
607 Columbia Street,
New Westminster, B.C.
V3L 5A5

Dear Mr. Westaway:

Re: Aircraft Accident
Douglas DC6B, CF-PWA
near Ashcroft, B.C.
2 August 1974

This is in response to your letter of October 3, 1974, to our Vancouver office which was sent to us for reply.

The investigation into the referenced accident is continuing and will not be completed for several months.

Your interest in this matter is recorded and a copy of our report will be sent to you as soon as it is available.

Yours truly,

ORIGINAL SIGNED BY
J. H. NYHUUS

JHN:ld

J. H. Nyhuus,
for Chief, Accident Investigation Division,
Civil Aeronautics Branch.

CC: PCAI-Vancouver

739 West Hastings Street
Vancouver, B.C.
November 28, 1974

5002-P40069 (PCAI)

Workers' Compensation Board
5255 Heather Street
Vancouver, B.C.
V5Z 3L8

Attention: Mr. Edward Bates

Dear Sir:

Re: Aircraft accident to DC6B, CF-PWA
35 Miles S.W. of Kamloops, B.C.
August 3, 1974

Your letter of 21 November 1974 requesting a summary report of the above-noted accident has been forwarded to our headquarters in Ottawa for action as they are responsible for release of this information.

You will be hearing from them directly when the report is completed.

Yours truly,

ORIGINAL SIGNED BY
S. DZUS

G. Leyland
Regional Superintendent
Accident Investigation

SD/jd

Government of Canada / Gouvernement du Canada

MEMORANDUM **NOTE DE SERVICE**

SECURITY - CLASSIFICATION — *DE SÉCURITÉ*	
OUR FILE — *N/RÉFÉRENCE*	5002-P40069 (PCAI)
YOUR FILE — *V/RÉFÉRENCE*	
DATE	28 November , 1974

TO / *À*

CAI OTTAWA
K1A ON8

FROM / *DE*

PCAI VANCOUVER
V6C 1A2

SUBJECT / *OBJET*

Aircraft accident to DC6B, CF-PWA
35 Miles S.W. of Kamloops, B.C.
August 3, 1974

1. Attached is a letter from the Workers' Compensation Board, together with a copy of our reply thereto.

2. For your action.

C. Leyland
Regional Superintendent
Accident Investigation

SD/jd
Attach.

000151

WORKERS' COMPENSATION BOARD

LEGAL DEPARTMENT

Telephone 266-0211
Telex 04-507765

5255 Heather Street,
Vancouver, B.C., V5Z 3L8

November 21, 1974

Accident Investigation Division,
Dept. of Transport,
739 West Hastings Street,
Vancouver, B.C.

Dear Sirs:

Re: William G. Sameluk, deceased - Claim #XF74081974
James F. Fewell, deceased - Claim #XF74081975
Philip G. Clack, deceased - Claim #XF74081973
Date of Accident - August 2, 1974

Would you please forward to us a copy of the investigation report pertaining to the above claimants who were killed in an airplane crash during a firebombing operation 35 miles S.W. of Kamloops. All three claimants were employed by Conair Aviation Ltd. The aircraft was registered as CF PWA, DC6B.

Your early attention to this matter would be appreciated.

Yours truly,

Edward Bates

Edward Bates
Solicitor

EB/gc

12,816S

5002-P40069 (PCAI)

739 West Hastings Street
Vancouver, B.C.
V6C 1A2
November 13, 1974

Straight & Westaway
607 Columbia Street
New Westminster, B.C.
V3L 5A5

Dear Sir:

Re: Aircraft accident to Douglas DC6B
CF-PWA near Ashcroft, B.C. 2 August 1974

Your letter of 3 October 1974 concerning the above-noted accident is acknowledged. Your letter has been forwarded to our headquarters in Ottawa for reply as they are responsible for release of this information. You will hear from them directly.

We regret the delay in replying to your letter. It was misfiled and only came to our attention today.

Yours truly,

ORIGINAL SIGNED BY
[illegible]

R. Leyland
Regional Superintendent
Accident Investigation

SM/jd

Government of Canada / Gouvernement du Canada

MEMORANDUM **NOTE DE SERVICE**

SECURITY - CLASSIFICATION — *DE SÉCURITÉ*	
OUR FILE — *N/RÉFÉRENCE*	5002-P40069 (PCAI)
YOUR FILE — *V/RÉFÉRENCE*	
DATE	November 13, 1974

TO / *À*: CAI OTTAWA
K1A ON8

FROM / *DE*: PCAI VANCOUVER
V6C 1A2

SUBJECT / *OBJET*: Aircraft accident to Douglas DC6B
CF-PWA near Ashcroft, B.C. 2 August 1974

Please find attached a request for information on the above-mentioned accident together with our reply thereto for your action.

C. Leyland
Regional Superintendent
Accident Investigation

jd

Attach.

000154

STREIGHT & WESTAWAY
BARRISTERS AND SOLICITORS
607 COLUMBIA STREET
NEW WESTMINSTER, B.C.
V3L 5A5

MAILING ADDRESS:
P.O. BOX 2260

TELEPHONE 522-0761
AREA CODE 604

J. M. STREIGHT, Q.C.
R. J. WESTAWAY
M. J. EDWARDS

REPLY ATTENTION OF R.J. Westaway

FILE NUMBER 12,816S

459083 OCT 8 14

October 3, 1974

Accident Investigation Department
Ministry of Transport
739 West Hastings Street
Vancouver, B. C.

RE: Estate of James F. Fewell,
Deceased

Dear Sirs:

This office has been consulted by the Widow of the above-named deceased, Mary Teresa Fewell, and is assisting her in settling the affairs of the estate.

We understand that your Department has completed the investigation of the accident in which Mr. Fewell met his death. It would be appreciated if you could supply us with a report or particulars of the accident investigation.

Yours truly,

STREIGHT & WESTAWAY

R.J. Westaway

RJW/dl

Transport Canada / Transports Canada

MESSAGE

FILE NO. DOSSIER Nº 5002-P40069 1756-1

DATE August 13 19 74

COMPLETE THIS SECTION-REMPLIR CETTE PARTIE

FOR COMMERCIAL MESSAGES CHARGE ONLY | POUR MESSAGES COMMERCIAUX UNIQUEMENT

CHARGE TARIF

A C A I, MONCTON

PCAI 165. PLEASE FORWARD PILOT FILE FOR PHILIP GEORGE CLACK, LICENCE NO. QMA 803, FOR PERUSAL BY ACCIDENT INVESTIGATION, PACIFIC REGION.

for P C A I, VANCOUVER

38-0014
6-73

000156

FILE COPY - DOSSIERS

Transport Canada / Transports Canada

MESSAGE

FILE NO. DOSSIER Nº: 5002-P40069 / 1756-1

DATE: August 13 1974

COMPLETE THIS SECTION-REMPLIR CETTE PARTIE

FOR COMMERCIAL MESSAGES CHARGE ONLY | POUR MESSAGES COMMERCIAUX UNIQUEMENT

CHARGE TARIF

O C A I, TORONTO

PCAI 166. PLEASE FORWARD PILOT FILE FOR PHILIP GEORGE CLACK, LICENCE NO. QMA 803, FOR PERUSAL BY ACCIDENT INVESTIGATION, PACIFIC REGION.

fm P C A I, VANCOUVER

38-0014
6-73

000157

FILE COPY - DOSSIERS

CA

5002-1 (PCAI)

5002-PL0069
5002-PL0072

PCAI

August 13, 1974

Aircraft Accidents - Consair

1. With reference to your verbal request this date regarding the subject matter, the following general information is submitted.

2. Accident to Douglas DC6B, CF-PWA - 2 August 1974

The pilot was on a water bombing run but aborted the run because his direction of flight was not as directed by the "Bird Dog". He overshot and commenced a left turn toward rising terrain. After completing about 220 degrees of the turn, the aircraft stalled and struck the ground in a left wing low, nose down attitude. The aircraft was destroyed by impact and fire. The pilot was told twice to dump during the overshoot and turn but there is no evidence of the load being dumped prior to impact. The engines were all developing considerable power and there was no evidence of mechanical malfunction prior to impact.

3. Accident to Douglas A-26, CF-FBV - 7 August 1974

The aircraft was one of five tankers engaged in water bombing a forest fire at the 5100 foot level in a narrow valley in the vicinity of Mt. Bowman, near Clinton, B.C.

The pilot was instructed by the "Bird Dog" to commence his approach on a north westerly heading on the east side of a 6500 ft. mountain, which was on the east side of the valley. He was to then turn around the north side of this mountain and make his run down the valley and over the fire towards the south. Instead, the pilot elected to commence his approach along the west side of the mountain and attempted to make a 180 degree turn within the confines of the valley. The aircraft struck the ground on the west side of the valley while still in the very steep left turn and after completing about 160 degrees of the turn. Examination of the wreckage at the scene gave no indication of any pre-impact failure of the engines, air frame or controls.

4. For your information.

Original signed by
C. LEYLAND

C. Leyland
Regional Superintendent
Accident Investigation

CL/jd

000158

5002-P40069

REGISTERED

739 West Hastings Street
Vancouver, B.C.
August 13, 1974

The Coroner
c/o R.C.M.P. Detachment
Ashcroft, B.C.

Dear Sir:

Re: Aircraft Accident to Douglas DC6B, CF-PWA
8 mi. SSE of Ashcroft, B.C. 2 August 1974

The following is a statement of fact as determined by our investigation on behalf of the Ministry of Transport.

1. The aircraft, a Douglas DC6B, was registered to Conair Aviation Ltd., Box 220, Abbotsford, B.C.

2. A Certificate of Airworthiness had been issued for the aircraft and was valid at the time of the accident.

3. The pilot-in-command, James Fredrick Fewell, 32687 Huntingdon Road, Abbotsford, B.C. held an Airline Transport Pilot Licence #VRA1320 valid for aeroplanes single and multi-engine land and sea, to a gross take-off weight of 12,500 lb. and for the following additional types; Douglas A-26, DC-3, DC-6 Canadair DC4M, Bristol 170 add Grumman TBM. His last medical examination was successfully completed 18 April 1974. The licence limitation was, "valid only when required glasses are avaliable". His flying experience is estimated to be in excess of 10,000 hours.

The first officer, Philip George Clack, 1518 Edgemont Road, Victoria, B.C. held an Airline Transport Pilot Licence #QMA803 valid for aeroplanes single and multi-engine land to a gross take-off weight of 12,500 lb. and the following additional types: Douglas DC-3, DC-6 and Canadiar CL-44D4. He had successfully completed a medical examination on 21 March 1974. The licence limitation was, "valid only when required glasses were available". His flying experience was approximately 9300 hours.

The captain and first officer are considered to be suitably trained and qualified to undertake the flight.

The crewman, William G. Sameluk, 97 Rupert Street, Thunder Bay, Ontario had no duties to perform in flight. He was on board as the aircraft was being transferred to a new location after this fire bombing mission. The crewman is not normally carried on fire bombing flights.

. 2

4. Evidence at the scene did reveal not reveal any failure or malfunction of the engines, airframe or controls. Damage to the engines and propellers indicate that all engines were producing substantial power at impact. The aircraft struck the ground in a left wing low, nose down attitude. Evidence indicates that after discontinuing the bombing run, the aircraft turned towards rising terrain.

Yours truly,

ORIGINAL SIGNED BY
S. DZUS

S. Dzus,
Aircraft Accident Investigator

SD/cps

Gouvernement du Canada

MEMORANDUM **NOTE DE SERVICE**

SECURITY - CLASSIFICATION — *DE SÉCURITÉ*	
OUR FILE — *N/RÉFÉRENCE*	5002-P40069(PCAI)
YOUR FILE — *V/RÉFÉRENCE*	
DATE	August 13, 1974

TO / *À*: C A I, OTTAWA
K1A ON8

FROM / *DE*: PCAI, VANCOUVER
V6C 1A2

SUBJECT / *OBJET*: ACCIDENT - Douglas DC6B, CF-PWA
8 miles SSE of Ashcroft, B. C.
August 2, 1974

1. Attached is copy (pages 1 and 8) of the subject aircraft accident report. The pilot and two other crew members were killed and the aircraft was destroyed.

Signed by
C LEYLAND

C. Leyland,
Regional Superintendent,
Accident Investigation

cps

ATTACH.

16:45 PST on 2/8/74

AIRCRAFT ACCIDENT/INCIDENT REPORTED

(Time and Date)

COPY FOR: PRA
PCA
PCAM
PCAR
PCAE PCAW PAT PAO
PTE AES

FILES: 5002-P1-0069
5008-PWA
5802-5615

PCAI 152 AIRCRAFT ACCIDENT/INCIDENT REPORT	
(A) Type, nationality and registration marks of aircraft.	DOUGLAS DC6B, CF-PWA
(B) Name of owner, operator and hirer, if any, of the aircraft.	CONAIR AVIATION LTD., P. O. BOX 220, ABBOTSFORD, B. C.
(C) Name of Pilot-in-Command.	JAMES FEWELL, 32687 HUNTINGTON RD., ABBOTSFORD, B. C.
(D) Date and time - Standard time - of the accident/incident.	AUGUST 2, 1974 16:20 P. S. T.
(E) Last point of departure and point of intended landing of aircraft.	ABBOTSFORD, B. C. TO FOREST FIRE 35 MILES SOUTHWEST OF KAMLOOPS, B. C.
(F) Location of the accident with reference to some easily defined geographical point.	35 MILES SOUTHWEST OF KAMLOOPS, B. C. 50° 37' N 120° 12' W.
(G1) Number of Crew/killed and/or seriously injured.	THREE/NONE.
(G2) Number of passengers/killed and/or seriously injured.	NONE/NONE.
(H) Nature of the accident/incident and the extent of damage to the aircraft so far as is known. Type of flying. Opinion concerning the cause of the accident/incident.	PILOT ABORTED BOMBING RUN THEN ATTEMPTED TO TURN IN NARROW VALLEY AND AIRCRAFT STRUCK MOUNTAINSIDE AND BURNED. AIRCRAFT DESTROYED. COMMERCIAL FLIGHT. DZUS INVESTIGATING.

5002-P40069
5008-PWA
5802-5615
August 6 74

C A I, OTTAWA

PCAI 152. AIRCRAFT ACCIDENT REPORT P40069.
(A.) DOUGIAS DC6B, CF-PWA.
(B.) CONAIR AVIATION LTD., P. O. BOX 220, ABBOTSFORD, B. C.
(C.) JAMES FENELL, 32687 [redacted] HUNTINGTON RD., ABBOTSFORD, B. C.
(D.) AUGUST 2, 1974 at 16:20 P. S. T.
(E.) ABBOTSFORD, B. C. TO FOREST FIRE 35 MILES SOUTHWEST OF KAMLOOPS, B.C.
(F.) 35 MILES SOUTHWEST OF KAMLOOPS, B. C. 50° 37' N 121° 12' W.
(G1) THREE/NONE.
(G2) NONE/NONE.
(H.) PILOT ABORTED BOMBING RUN THEN ATTEMPTED TO TURN IN NARROW VALLEY AND AIRCRAFT STRUCK MOUNTAIN SIDE AND BURNED. AIRCRAFT DESTROYED. COMMERCIAL FLIGHT. DZUS INVESTIGATING.

P C A I, VANCOUVER