



CANADA
Province of Alberta

Report to the Minister of Justice and Attorney General Public Fatality Inquiry

Fatality Inquiries Act

WHEREAS a Public Inquiry was held at the _____ Court House
in the _____ City _____ of _____ Edmonton _____, in the Province of Alberta,
(City, Town or Village) (Name of City, Town, Village)
on the _____ 19th _____ day of _____ June _____, _____ 2006 _____, (and by adjournment
year
on the _____ 12th _____ day of _____ March _____, _____ 2007 _____),
year
before _____ Michael Allen _____, a Provincial Court Judge,
into the death of _____ Dane Craig Wintermute _____ 42 _____
(Name in Full) (Age)
of _____ 16 Valley view Crescent, Edmonton, Alberta _____ and the following findings were made:
(Residence)

Date and Time of Death: _____ April 21, 2004 at approximately 10:47 p.m. M.D.T. _____

Place: _____ Approximately four nautical miles east of Josephburg Alberta _____

Medical Cause of Death:

("cause of death" means the medical cause of death according to the International Statistical Classification of Diseases, Injuries and Causes of Death as last revised by the International Conference assembled for that purpose and published by the World Health Organization – The Fatality Inquiries Act, Section 1(d)).

Multiple blunt force injuries suffered when the aircraft operated by Mr. Wintermute crashed into grain bins.

Manner of Death:

("manner of death" means the mode or method of death whether natural, homicidal, suicidal, accidental, unclassifiable or undeterminable – The Fatality Inquiries Act, Section 1(h)).

Accidental.

Circumstances under which Death occurred:

Introduction

Dane Craig Wintermute was a licensed pilot who was the sole occupant and pilot of an Edmonton Flying Club Cessna 172 S at the time of his death. Mr. Wintermute held a private pilot license. Mr. Wintermute successfully qualified as a private pilot on December 22, 2003 and was given a temporary licence which meant he could exercise pilot privileges. His actual licence was issued March 9, 2004. The licence was restricted to visual flying rules (VSR) when the pilot was wearing corrective eyewear. At the time of his death he was training with the Edmonton Flying Club (the club), he was a licensed pilot who was attempting to upgrade his training to obtain a night flying endorsement. This was a solo flight.

Pilot Training

Mr. Wintermute was a competent and highly respected lawyer who practiced civil litigation in Edmonton. Mr. Wintermute received his training almost exclusively at the club which is situated at the Edmonton Centre Airport.

Mr. Wintermute began his ground school instruction in June 2000. After successfully completing ground school he received flight instructions. Mr. Gordon Welsby, a level 1 flight instructor, gave him his final tests. Mr. Wintermute's overall rating on his written examinations was 89.9%; he was given an 85% grade on his flight test. At the time of his death he had compiled approximately 123 hours of flying time.

Ryan Duchesne, the Chief Flight Instructor at the club, was Mr. Wintermute's main instructor. Mr. Duchesne was a level 2 flying instructor. Flying instructors are given levels or ratings. The highest level is level 1; the lowest is level 4.

Part of the pilot training is familiarity with the *Civil Aviation Regulations (CARs)*. In this document reference to a regulation without any other description means a regulation contained in *CARs*. These regulations prohibit VFR flights unless certain criteria are met. VFR flying requires the pilot to be sight of ground or water and flying by visual means in relation to the earth. Other minima are also applicable depending upon the location of the aircraft and lighting conditions.

Transport Canada classifies all airspace in Canada. At the time of the crash, Mr. Wintermute was operating in uncontrolled airspace. Pilots with a VFR rating are expected to maintain VFR minimum conditions while in flight. The requirements vary depending upon the altitude and the time of day. In daylight, if an aircraft is above 1000 feet from the ground there must be a visibility of one mile and the aircraft must not be less than 500 feet vertically and 2000 feet horizontally from cloud. If the aircraft is flying during daylight and below 1000 feet from the ground, the flight visibility must be two miles and the aircraft operated clear of cloud. If the pilot is able to maintain these minima then he or she is flying under visual meteorological conditions (VMC); otherwise he or she is flying in instrument meteorological conditions. Those flying in such conditions must operate in accordance with instrument flight regulations or rules (IFR): see *regulation 602.121*.

Because emergencies arise, all pilots, including student pilots, are trained to use instruments. During the flight test to obtain a private pilot's license, a pilot is tested upon his or her ability to fly by instruments.

Instrument Flying

In aircraft, such as the Cessna 172S, instruments help the pilot: an altimeter which indicates the distance above sea level, a compass to provide the pilot with direction, an instrument that tells the pilot the attitude of the aircraft. The latter instrument allows the pilots to discern whether the aircraft is flying level, descending or ascending. In addition, the aircraft was equipped so that the aircraft could use an automated direction finder (ADF) to navigate. Indeed, Mr. Wintermute was given an assignment to fly using ADF at the time of his death.

Reduced Visibility Flying Training and Night Flights

Pilots are taught to avoid clouds during flights that take place during the day. During the day there is little possibility of accidentally flying into clouds. However, on a dark overcast night the possibility of flying accidentally into cloud cover increases. An instructor is prohibited from intentionally flying a student into clouds. For their safety, pilots are taught to rely upon aircraft instruments when they lose visibility. This training takes place on flight simulators and in the air. During this type of training pilot trainees wear a hood that restricts their view to the instrument in the aircraft. The instructor puts the aircraft into situations which require the pilot trainee to correct course only by using instruments. Persons who seek a private pilots licence must pass such testing during their flight examination.

Pilots are taught to deal with emergencies where they lose visibility. They are expected to turn their aircraft slowly 180 degrees back to the last point of good visibility while maintaining the same altitude.

During his flight test, Mr. Welsby tested Mr. Wintermute on forced landing procedures. Grades are rated from 0 to 5 with 5 being the highest rating. Mr. Wintermute rated a 5 on forced landing procedures, rated a 4 on full instrument panel, and a 5 on correcting a flight in an unusual attitude. During his soft landing test, Mr. Welsby noted that Mr. Wintermute came in high on his approach and had a marginally long touch-down. Mr. Welsby felt that Mr. Wintermute dealt with the stress of that mistake well. Mr. Welsby rated Mr. Wintermute to be a high average or above average student.

Mr. Welsby gave his opinion as to possible cause of the crash. He admitted that he was speculating since he had not questioned all of the witnesses. It was his view that Mr. Wintermute was a busy professional who lived a busy and structured life. Mr. Welsby felt that fatigue might have been a factor although he admitted that he had not explored Mr. Wintermute's sleep with any witnesses. It was his view that Mr. Wintermute would have been upset when he was told by the air traffic controller he was substantially off course. The stress of that mistake coupled with possible fatigue may have explained why Mr. Wintermute acted as he did.

Night flying requires the pilot to adjust to different environments, especially the environment outside the cockpit of the aircraft. The horizon, topographical features, and the ground itself can be obscure, indistinct, and perhaps invisible at night. Training for night flying alerts the pilot to the challenges involved in night flying.

A pilot who has a night flying endorsement is allowed the privilege of flying at night: *regulation 401.42-3. Regulation 421.42* sets out the requirements for night flying. The applicant must have a minimum of 5 hours dual night flight time including two cross-country flights, a minimum of 5 hours solo flight time including 10 takeoffs, circuits and landings, a minimum of 10 hours dual instrument time (5 hours of which can be instrument ground time provided that there is a minimum of 10 hours night flying time), and the applicant has, within 12 months, successfully completed a qualifying flight with an instructor certified by Transport Canada. Since a private pilot needs a qualifying flight with an approved Transport Canada Instructor within 12 months, it is common for individuals to start night flying shortly after qualifying as a private pilot because in their flight test they are tested by such individuals.

Mr. Wintermute's Night Flying Experience

Mr. Wintermute started his training for his night flying endorsement in January 2004. He returned to Mr. Duchesne for that instruction. He was given written material. This included an exercise entitled "Night Flying," a document entitled "Welcome to Your Night Rating" and a syllabus of the projected exercises. "Night Flying" was a document produced by Transport Canada; the others were produced by the club. Each of these provided Mr. Wintermute with some information relating to the course. Mr. Wintermute made handwritten notes on the first document.

The night flying training included actual night flights. On January 20, 2004, Mr. Wintermute flew his first night flight. During that flight he practiced flying night circuits. On January 27, 2004, he practiced using flight instruments on a simulator. On February 5, 2004, he again flew at night with Mr. Duchesne and practiced the use of an automated direction finder (ADF). ADF flight allows a pilot to use radio signal to obtain a course heading. On February 19, 2004, Mr. Wintermute made a day flight where he practiced ADF flying. On March 13, 2004, Mr. Wintermute practiced ADF and soft landings during the day. On March 15, 2004, he flew at night again with Mr. Duchesne; flying ADF to Josephburg and landing at the Edmonton International Airport at night. On March 22, 2004, Mr. Wintermute practiced dual circuits at night with Mr. Duchesne; then he did solo circuits himself. On March 23, 2004, he practiced instrument flying with Mr. Duchesne.

The Flight to Tofield April 20, 2004

Mr. Wintermute flew twice in April 2004. The first flight was on April 20, 2004, at approximately 4:00 a.m. On this occasion he flew to Tofield with Mr. Duchesne.

Mr. Wintermute had not flown since March 22. Part of the reason for the hiatus was because Mr. Wintermute and his family had gone to Spain on vacation. Mr. Duchesne made the following remarks concerning that flight in the pilot's logbook: "Initially very rusty. All radio navigation procedures forgotten. Reviewed them and then he did well. Follow the checklist. Leveling off remember APT. Be more aggressive on airspeed."

Mr. Duchesne testified that during the first half hour, they reviewed the navigation procedures. Although he seemed to have forgotten his ADF training, the review jogged Mr. Wintermute's memory so he was able to perform well. His other comments made in the logbook were reminders of what Mr. Wintermute should practice on future flights. Mr. Duchesne did not recall whether they landed at the Tofield Airport. He believed that they may have turned the lights on at that airdrome.

Tofield is an airfield which does not have a control tower or other personnel to assist anyone with landing. However, the airfield's lights can be turned on by the pilot pressing his radio microphone seven times on an assigned radio frequency.

The Assignment

Mr. Duchesne gave Mr. Wintermute the mission of replicating the flight alone which they both had taken together. The purpose of the flight was for Mr. Wintermute to practice instrument flying. In so doing Mr. Wintermute would be flying by means of an automatic direction finder (ADF) a radio based direction finder in the aircraft. Mr. Wintermute was instructed to use the radio beacon at the Edmonton Centre Airport to guide him in the use of the ADF. Mr. Duchesne wanted Mr. Wintermute to replicate the flight as soon possible when his knowledge of what he had learned would be fresh. The flight took place approximately 18 hours after their dual flight to Tofield. An instructor must sign out any pilot trainee on a solo. Unfortunately, Mr. Duchesne was unable to sign Mr. Wintermute out because he had arranged a business appointment in Peace River and

expected to be there. Mr. Duchesne arranged for Matthew Thomas Melnyk, another flying instructor, to do a pre-flight briefing with him prior to takeoff; if Mr. Melnyk was satisfied, he could then sign out Mr. Wintermute. Mr. Duchesne testified that he would not have approved Mr. Wintermute for a solo flight after a layoff of approximately one month without flying with him. However, after their flight to Tofield together, he believed that Mr. Wintermute was fully competent and qualified to fly solo cross-country to Tofield or Vegreville.

Mr. Melnyk was a level 4 flying instructor and capable, according to the *CARs*, of signing out another instructor's student.

The Flight on April 21

It is important to understand in detail the events surrounding the flight on April 21, 2004, in which the airplane crashed. The events will be discussed under several headings below.

Mr. Wintermute's Frame of Mind and Fatigue

Two witnesses from Mr. Wintermute's law firm testified about his state of mind at the time of the flight and his work load.

James Neilson, his law partner, testified that Mr. Wintermute was a methodical, meticulous and careful lawyer who lived a balanced lifestyle. Mr. Wintermute told him that he loved to fly. When Mr. Wintermute returned from his holiday in Spain he was relaxed.

Marjorie Goodenough, Mr. Wintermute's legal assistant, agreed that her boss enjoyed the trip. Before he left on vacation Mr. Wintermute had carefully reviewed each of his files. Because he was so well organized, Mr. Wintermute had no pressing deadlines when he returned. April 21 was a light work day for Mr. Wintermute. He went to lunch with a friend. When he returned from lunch, he handed out gifts to the support staff. She did not see him in the afternoon after he handed out gifts.

Ms. Goodenough also testified concerning Mr. Wintermute's work schedule. Generally, he arrived at 7:00 a.m. and left by 5:00 p.m. Mr. Wintermute did not customarily work at night because he spent his night life with his family. Ms. Goodenough believed that Mr. Wintermute enjoyed his family and there was no family stress. Mr. Pearson, the Transportation Safety Board investigator, learned from family members that the deceased slept normally the night before the crash and had a short nap when he came home from work prior to his evening flight.

The Weather

Pilots are responsible for their own safety, the safety of the public, and the safety of the aircraft. The pilot has considerable responsibilities prior to commencing a flight. The pilot must be familiar with all appropriate information including weather information prior to an intended flight: *regulations 602.71-72.*

In every flight, the weather status is a matter of concern. Pilots can obtain information concerning weather at a kiosk available at Edmonton Centre Airport or by calling Navigation Canada (Nav. Canada). On April 21, at 8:39 p.m., Mr. Wintermute telephoned Monique Hobson, a flight navigation specialist with Nav. Canada. He told her he intended to fly from Edmonton Centre Airport to Tofield at approximately 9:30 p.m. where he would be performing a touch and go. A touch and go is a landing without stopping. Mr. Wintermute asked for and received a full weather briefing from Ms. Hobson. She assured him that "the weather was looking good," and "I think you are going to be fine." She then gave him the weather forecast which included information that visibility was greater than six miles; indeed, the visibility was fifteen miles. She

told him there was no trace of rain between Tofield and Edmonton Centre on the radar. Ms. Hobson indicated that rain was forecasted 75 to 100 miles from Edmonton. There were a few clouds at 6400 feet above sea level. She provided him with information relating to cranes at the Edmonton Centre Airport and of some difficulty relating to the intensity of the lighting beacon at the airport which could have affected his landing. Ms. Hobson testified that she would have provided Mr. Wintermute with the same information had he informed her he was flying to Vegreville or Josephburg.

Three miles visibility is the minimum for a VFR night flight. The visibility provided by Nav. Canada at the Edmonton Centre Airport terminal is determined automatically by a machine. The highest reading is “greater than six miles.” The club, in its document, “Welcome to Your Night Flying Rating” has minima that far exceed this. For solo local flights the minimum cloud ceiling is 2000 AGL (above ground level) and 5 statute miles visibility forecast for the duration of the flight. For solo cross country flights the minima are a ceiling of 5000 feet AGL and 15 statute miles forecast for the duration of the flight. The information provided by Ms. Hobson to Mr. Wintermute was to the effect these minima were met and it was safe to fly.

Unfortunately, during Mr. Wintermute’s flight, the weather changed without any prior warning. The forecast showed storm warnings heading east toward Saskatchewan. When Mr. Wintermute’s aircraft was in the Josephburg area, lighting strikes and isolated storm activity, including rain was observed on radar.

Prior to takeoff and landing, the pilot is expected to check with ATIS (automated terminal weather). The information given there prior to flight would have been the same but less detailed than that provided by Ms. Hobson.

Pilots can obtain weather information from Nav. Canada flight centres while in the air by radio. No such information was requested by Mr. Wintermute.

Filing a Flight Plan

Ms. Hobson asked Mr. Wintermute if he would be filing a flight plan. Mr. Wintermute assured her that he would be doing so in the next one-half hour. At 9:13 p.m., Mr. Wintermute telephoned Edmonton Flight Services and filed a flight plan relating to his flight to Tofield. Flight plans can be filed by telephone. Mr. Wintermute said he would be flying to Tofield at approximately 9:30 p.m. He anticipated the length of the flight was one and one-half hours. He provided the required information concerning the occupants of the aircraft and the aircraft, including its call letters GIUW. If the pilot does not arrive within one hour of the time estimated for the flight, search and rescue are notified. The primary purpose of a flight plan is to assist in the rescue of downed aircraft; however, pilots are required to notify an air traffic controller of a change in flight plan.

As I understood the evidence, the flight plan is not communicated by Flight Services to air traffic controllers.

Pre-flight Briefing

Prior to any flight undertaken by a student, the instructor is expected to have a pre-flight briefing with the pilot. This is because the instructor is required to sign out the student in the daily flight log. If the instructor does not sign a student out, then the student is unable to fly. As already indicated, a class 4 instructor was competent to sign out a student. Mr. Melnyk confirmed that he had such a briefing with Mr. Wintermute.

No check list is provided that indicates what an instructor must discuss in a preflight briefing. Janet Chrystian, a level 1 instructor, testified that she would check the weather, the student’s

documentation (his personal medical information or student pilot permit or license), and whether the pilot had a recent dual flight. In addition she indicated she would want to check that the pilot or student had the knowledge and skill level to go up. In some cases she would expect the student pilot to plot landmarks along his or her intended path so that they could periodically check if they were on the right path.

Mr. Melnyk testified that he checked the pilot training of Mr. Wintermute and he checked the weather on the internet. Mr. Melnyk confirmed with Mr. Wintermute that he had called Nav. Canada for a weather briefing. He checked with Mr. Wintermute that Mr. Wintermute confirmed that the aircraft had sufficient gasoline and oil to complete the flight. They also spoke about the assignment, i.e., radio navigation to Tofield using the City Centre beacon as a guide. Mr. Wintermute told him that he wanted to do circuits including touch and go landings at Tofield. In his training flight with Mr. Duchesne he had not done these. Mr. Melnyk did not know if they discussed the lighting at the Tofield Airport. No particular heading was selected for the trip to Tofield since the object of the exercise was to attempt to use the instruments to fly to Tofield and back. Mr. Melnyk did not expect Mr. Wintermute to plot landmarks because no particular heading has been selected. He did not check the charts Mr. Wintermute had, nor did he inspect the aircraft with Mr. Wintermute; he did remember Mr. Wintermute walking around the aircraft. Mr. Melnyk believed that Mr. Wintermute understood the mission and was fully competent to undertake it.

The Pilot in Command

The responsibilities of a pilot in command (which includes a student pilot when flying solo) are lengthy. Even where a student pilot is flying with an instructor the student is expected to carry these out. A check must be made of the aircraft documents, and the aircraft log to determine if the aircraft was suitable to fly; the documents located at the crash site support the airworthiness of the aircraft. Pilots must ascertain that the aircraft has sufficient gas and oil to complete the trip. Where a night flight is being undertaken the pilot must inspect the aircraft to see that the lighting and equipment was suitable for such a flight; this aircraft was properly equipped. The pilot is expected to have all proper documentation related to the aircraft. The documents found at the crash scene indicated these were in order. The pilot is expected to have consulted the weather to see it is suitable for flying. The pilot is expected to check NOTAMS and PIREPS. The former are notice to airmen relating to obstructions or unusual activities along the route. The latter are pilot observations reported; these observations could deal with weather. Certain items must be taken on board the aircraft. Pilots must take a Canada Flight Supplement that gives them information concerning airports. They are expected to have a trip log where they record observations related to the flight. They should have a map or chart of the area they intend to fly and are expected to be aware of landmarks along their intended route. Many pilots plot the route, mark landmarks on their maps, and put down anticipated time of arrival at these landmarks. Though many documents were recovered from the crash site no map or copy of the Canada Flight Supplement was found. This is not surprising since the pilot would likely have these items close at hand so he or she could consult them during the flight. The cockpit was severely burned so that documents like this would likely have been destroyed in the fire.

I am certain that the list of documents and responsibilities set out in the paragraph above is not exhaustive. Suffice it to say that responsibilities of a pilot in preparing to fly are numerous. A pilot is expected to perform all of these inspections and have these documents to fulfill his or her responsibility to maintain safety in the air. Flying an aircraft is not similar to driving a vehicle. A great deal of preparation is required prior to flight.

Mr. Melnyk's Other Student

Mr. Melnyk was instructing another student in another aircraft while Mr. Wintermute was in flight.

After signing out Mr. Wintermute, he and the other student proceeded on a path to Edmonton International Airport and did circuits. Thereafter, Mr. Melnyk then decided to have the student go to Cooking Lake and practice further circuits there. The visibility throughout Mr. Melnyk's flight was generally good. He encountered "light, light, rain" on the inward flight to Cooking Lake. There was turbulence at Cooking Lake so they decided to return to Edmonton Centre Airport. Light rain was sprinkling on their aircraft during the inward flight; however, the rain did not interfere with their visibility. The city of Edmonton was visible to them throughout the flight. Edmonton is a big city whose lights cannot be mistaken for any other town in the region.

Because Mr. Melnyk was a level 4 instructor, he was required to be supervised by a class 1 or 2 instructor during the period of his employment. This meant that he had discussed his students and his instruction methods weekly. Mr. Melnyk first gained his level 4 permit on January 10, 2004. Renewal of this status required yearly testing. He failed two tests in January 2003 so his instructor privileges were suspended. On July 16, 2003 he tried once more and passed. Therefore, at the time of the flight undertaken by Mr. Wintermute, he was a fully qualified class 4 instructor.

Air Traffic Control

A disc containing taped radio transmissions between David Turner, the air traffic controller at Edmonton Centre Airport, and air traffic on April 21 was played at the inquiry. Also a transcript was entered in evidence. These covered all transmissions between Mr. Turner and aircraft during the time between 9:41 p.m. and 10:16 p.m. I did not hear tapes or have transcripts related to Mr. Wintermute's takeoff from Edmonton Centre Airport. The flight of Mr. Wintermute's aircraft was followed on radar from the Edmonton Center tower.

Mr. Randy Speiron, a Nav. Canada employee, explained the role of air traffic controllers. The duties of air traffic controllers are set out by Nav. Canada in the Air Traffic Control Manual of Operations (*MAN OPS*). In addition, each tower has a tower radar plan which provides instructions to air traffic controllers in the area. Pilots do not necessarily refer to these documents but are trained concerning the role of air traffic controllers and communicate with them during their training. Also, Transport Canada provides a manual called the Aeronautical Information Publication (*A.I.P. Canada*) to all pilots. The manual *A.I.P. Canada* is expected to be used as reference material by the pilot; it would not necessarily be carried in an aircraft.

Mr. Speiron explained that the primary role of air traffic controllers was to create space between aircraft that were flying in air traffic control areas near airports. Air traffic controllers can provide some radar information to aircraft, provided the aircraft is within radar range of their airfield if they have time to do so. Information or assistance is provided to those aircraft flying IFR within the proximity of the tower. Aircraft flying IFR would be handed over to other air traffic controllers along the route. All aircraft within the area controlled by the tower are expected to follow the directions of the air traffic controllers. This would include those flying VFR.

The movement around an airport is tightly controlled. While on the ground at the airport, directions are given to pilots by ground control as to their movements. When taking off, a heading and altitude is given to each pilot depending upon their intended destination. However, aircraft flying VFR in uncontrolled airspace are not generally directed by air traffic controllers. Each aircraft is expected to have a transponder on board which will identify the aircraft for tracking purposes. On their departure, pilots are given information related to the individual identification for their aircraft. In this way, air traffic controllers can track and identify individual aircraft on their radar.

Aircraft flying VFR are not under the control of any tower while in uncontrolled airspace. Most airspace between Tofield and Edmonton Centre is uncontrolled airspace. So to is most of the

airspace between Edmonton Centre, Josephburg, or Vegreville.

Mr. Speiron testified that even if the air traffic controller knew the flight plan, a pilot would be able to deviate from that flight plan while in uncontrolled airspace. An air traffic controller would not become alarmed that the aircraft was experiencing difficulty because it deviated from the flight plan in uncontrolled airspace. Pilots frequently do not fly directly to their intended destination as set out in their flight plan but frequently deviate from them for reasons of their own, such as the desire of those pilots to sightsee in the area.

A.I.P. Canada sets out the radar assistance that may be provided to pilots in flight. Mr. Speiron referred to various sections of *A.I.P. Canada*, *MANS OP* and the Edmonton Centre Radar Plan during his testimony. *Section 1.5.4 of A.I.P. Canada* states:

“When requested by pilots, radar equipped ATC units will provide assistance to navigation in the form of possible information, vectors, or track, and ground speed checks. Flights requesting this assistance must be operating within areas of radar and communication coverage, and be radar-identified.

VFR flights may be provided this service:

- (a) at the request of the pilot, when traffic conditions permit;
- (b) when the controller suggests and the pilot agrees; or
- (c) in the interest of flight safety.

The pilot is responsible for avoiding other traffic and avoiding weather below VFR minima while on a VFR flight on radar vectors.

If the radar vector will lead a VFR flight into IFR weather conditions, the pilot must inform the controller and take the following action:

- (a) if practicable, obtain a vector which will allow the flight to remain in VFR weather conditions; or
- (b) if an alternative vector is not practicable, revert to navigation without radar assistance; or
- (c) if the pilot has an IFR rating and the aircraft is equipped for IFR flight, the pilot may file an IFR flight plan and request IFR assistance.

Emergency radar assistance will be given to VFR flights which are able to maintain two-radio communication with the unit, are within radar coverage, and able to radar identified.

Pilots requesting radar assistance during emergency conditions should contact the nearest ATC unit and provide the following information:

1. Declaration of emergency (state nature and difficulty and type of assistance required).
2. Position of the aircraft and weather conditions within which the flight is operating.
3. Type of aircraft, altitude and whether equipped for IFR flight.
4. Whether the pilot has an IFR Rating.

Pilots unable to contact radar but in need of emergency assistance may alert radar by flying a triangular pattern."

Mr. Speiron explained even those pilots who have lost an ability to speak on the radio can send an emergency signal using their microphone.

Section 1.5.7 of A.I.P. Canada provides, in part:

“The pilot of a VFR aircraft remains responsible for maintaining adequate clearance from obstacles and terrain when the flight is being radar-vectorred by ATC.

If adequate obstacle or terrain clearance cannot be maintained on a vector, the pilot must inform the controller and take the following action:

- (a) if practicable, obtain a heading that will enable adequate clearance to be maintain or climb to a suitable attitude, or
- (b) revert to navigation without radar control.”

Mr. Speiron testified that Josephburg airport was 2069 feet above sea level.

Mr. Speiron also explained that an aircraft can turn on lights from the air by using their radio. For instance, at Tofield, the pilot can activate the airfield lights by the pilot pressing his microphone button seven times on radio frequency 123.5. Aircraft are generally expected to be a minimum height over airfields. At Josephburg the pilot is expected to be 1000 feet above ground level to avoid chemical plants and grain elevators.

Mr. Speiron explained that the altimeter of an aircraft is set at sea level. The pilot is expected to know the approximate levels of the ground terrain. By subtracting the level of the ground terrain from the sea level reading provided by the altimeter, the pilot is able to calculate the height of the aircraft above ground level. Pilots use charts or maps which mark the minimum level on the altimeter to help them keep a safe distance above the ground. A map entered in evidence showed that the minimum altitude above sea level in the Josephburg area was 3000 feet.

Mr. Speiron explained that the tower may not be aware that a student pilot is flying the aircraft. The level of service is the same for all levels of pilots. It was unusual for instructors to be in control towers while their students were flying. He had only seen that once during his career.

Mr. David Turner was a highly experienced air traffic controller working alone in the Edmonton Centre tower at the time of the crash. It was not a busy evening.

Because Mr. Wintermute’s aircraft had a transponder and was assigned a discrete identification code, Mr. Turner was able to reproduce the exact path the aircraft took on its fatal trip. In addition, a copy of the tape of the final transmissions between Mr. Wintermute and Mr. Turner are preserved.

The Flight

Mr. John Pearson, the main Transportation Safety Board investigator, was given access to the tape, transcript, and the radar information. Based on this material Mr. Pearson produced two helpful documents in the inquiry. Both of these documents are found in binder four of the voluminous materials filed by Mr. Meikle, the inquiry counsel.

The first document is set out at page1047. On this document Mr. Pearson traced the intended route in pink. Mr. Wintermute’s intended route was based upon the pilot flying and returning from Tofield in a direct fashion. The actual route, traced in yellow, is based upon the radar information.

The second document is set out at pages 1048-1050. In a diagram consisting of a series of blocks drawn on these pages, Mr. Pearson provides a time sequence of the events he discovered during his investigation. Also in these latter pages are circles where Mr. Pearson provided opinions related to the information provided. During Mr. Pearson’s testimony, Mr. Gregory, counsel for the Transportation Safety Board, objected when Mr. Pearson was asked to

give opinion evidence by Mr. Heinrichs, counsel for the Wintermute family. Mr. Gregory relied upon s. 33 of the *Transport Safety Board Act* which makes opinion evidence of an investigator inadmissible in any legal proceeding. I upheld Mr. Gregory's objection because of the clear wording of the section. Mr. Heinrichs countered with an objection that the circles on pages 1048-1050 represented an opinion of the investigator and should likewise be inadmissible. I agreed with that objection and have ignored the opinions contained in the circles.

Let me make a few comments upon s. 33. It is important to understand that the section makes opinion evidence inadmissible. The provision is not simply a privilege that might be waived. In some circumstances the failure of the investigator to give opinion evidence may provide real problems to a court or inquiry. After all, the investigator is generally objective and qualified to give some helpful evidence concerning an air crash that would prove valuable to the trier of fact. I did not believe the inadmissibility of opinion evidence here prevented me from making appropriate findings in this fatality inquiry. The Canadian Government may wish in future to consider a privilege so that the investigator or someone else can waive the privilege; that is something I leave to their wisdom.

The two documents prepared by Mr. Pearson were used extensively by counsel to examine Mr. Pearson and other witnesses. I have used, as a guide, to follow the progress of the flight. Set out below are comments concerning the April 21 flight in point form:

- At 9:47 p.m. Mr. Wintermute took off from Edmonton Centre airport. When he left, he circled the airfield and then headed on a course that would have taken him directly to Tofield.
- At 9:54 p.m. he turned left proceeding on a path toward the Josephburg Airport. In so doing he probably was attempting to follow the instructions related to his training run. That is, he was heading away from Tofield and using the ADF equipment on board the aircraft to once more find his proper heading to Tofield.
- At 9:57 p.m. he turned right. At this point the aircraft was headed in the direction of Cooking Lake but had it continued on that course Mr. Wintermute would likely have found the Tofield Airport.
- At 9:58 p.m. he altered that course turning left. He continued on this course eastward and eventually came to the Vegreville Airport. During the course of that outward flight, radar and radio communication between the Edmonton Centre tower and Mr. Wintermute was lost. Tofield is generally south east of Edmonton Centre Airport while Vegreville Airport is east. In the aircraft operated by Mr. Wintermute, a flight to the Vegreville Airport is ten minutes longer than a flight to the Tofield Airport. Generally, a pilot is expected to chart the approximate time to any destination. Had Mr. Wintermute done this, he would have realized that he was late in arriving at the intended destination. However, it may not have concerned him because he was asked to make course changes on the way to Tofield and use the instruments to change back to the course. Mr. Wintermute had flown to the Vegreville, Tofield and Josephburg Airports during his initial pilot training during the daytime. During his night flying training he had flown at night to Josephburg and to Tofield. On March 13, 2004, he flew to Vegreville during the day. Vegreville is a somewhat larger town than Tofield but Mr. Wintermute may not have been able to distinguish between the two towns at night. Since it was Mr. Wintermute's plan to touch and go at Tofield he would have to activate the runway lights from his aircraft. Had he tried to turn on the lights at the Vegreville Airport using the frequency for Tofield he would have been unable to do so. That should have alerted him of possible problems with the lights, his microphone, or the possibility he was off course.

- At 10:22 p.m. Mr. Wintermute reached Vegreville and he turned back toward Edmonton. At this juncture, he was parallel to the intended route back from Tofield but was considerably north because he was flying from Vegreville.
- At 10:43 p.m. Mr. Wintermute radioed Mr. Turner at Edmonton Centre indicating that he was flying at 3500 feet and believed he was “south of Sherwood Park.” Mr. Wintermute asked for a radar vector to Edmonton City Centre.
- Mr. Turner asked him to “squawk his ident please.” Although Mr. Turner had the aircraft on radar, this procedure allowed the air traffic controller to check that he had the aircraft in the right location. Mr. Wintermute at first did not press the button on the transponder in his aircraft and was reminded to do so by Mr. Turner. When that procedure was completed Mr. Turner informed Mr. Wintermute that he “quite a ways from Sherwood Park.” Indeed, Mr. Turner told him that he was “8 miles east of Josephburg.”
- Mr. Turner then asked if the weather was suitable for Mr. Wintermute to climb to 4000 feet. Mr. Wintermute responded “affirmative.”
- At 10:44 p.m. Mr. Wintermute informed Mr. Turner that he was at 4000 feet. Mr. Turner advised Mr. Wintermute to turn left on a vector heading of “two three zero.”
- At 10:45 p.m. Mr. Wintermute asked once more for his location related to Sherwood Park. He was informed that he was fifteen miles northeast of Sherwood Park and six miles east of the Josephburg strip.
- Fourteen seconds later Mr. Wintermute transmitted “I’d like to descend to three thousand five hundred, weather’s not VFR.” Mr. Turner responded “descend at your discretion.” Mr. Turner testified that this transmission meant that Mr. Wintermute was having difficulty with visibility.
- At 10:46 p.m. Mr. Wintermute radioed that he was at “three thousand and thirty two hundred feet.” Mr. Turner responded “I’m showing a bit of weather between you and the airport about six miles southwest of you, but my weather radar is not that accurate so what is your flight condition now?” During his testimony, Mr. Turner explained that his radar does not necessarily show weather accurately.
- Mr. Wintermute responded “I’m at marginal VFR.” Mr. Turner asked if it looked better in any other direction. Mr. Wintermute said “a heading of three zero zero possibly.”
- Mr. Turner then radioed “why don’t you fly that way, and whatever is best for the weather is probably best.” He suggested that Mr. Wintermute consider landing at Josephburg where he believed there were lights and gave Mr. Wintermute the frequency to activate the lights.
- Cst. Darryl Day was flying Air One, the Edmonton Police Service helicopter, and heard the transmissions between Mr. Wintermute and Mr. Turner. He radioed that he could see the beacon at Josephburg from his location in the air over north east Edmonton. He volunteered to go up to Josephburg if he could be of assistance. Cst. Day explained that he had earlier observed lightning and clouds east of him.
- At 10:48 p.m. Mr. Turner radioed to Mr. Wintermute asking him if he was reading Edmonton City Centre. He received no response

- Mr. Turner testified that he watched on radar as Mr. Wintermute's aircraft descended gradually to below 2500 above sea level when the radar lost track of the aircraft.
- Mr. Patrick McGrath testified that he lived four or five miles south east of Josephburg. He was in his house alone. The lights were not on in his house although there was a single outside light lit on his property. He lived in a farmland district with little lighting except for the residences. The winds picked up during the evening, and it was raining lightly. He saw Mr. Wintermute's aircraft flying from east to west past his property; the aircraft's running lights were visible. The aircraft was flying quite low, a lot lower than other aircraft that he had observed flying near his residence. The airplane was approximately one quarter mile away from him when flying over his property. The aircraft flew straight and level past his place and disappeared over the trees. Shortly thereafter he heard a bang followed by flash of light. He thought that the aircraft had crashed nearby. Mr. McGrath telephoned 911 and told the operator about the suspected crash; then he drove one mile west to a neighbour's field where he saw an airplane on fire. The fire was centered on the front of the aircraft. While he was there the aircraft exploded twice. He did not see anyone near the aircraft. A helicopter arrived prior to any police, ambulance, or fire fighters.
- Cst. Day arrived in the Air One helicopter at the crash site approximately 15 minutes after the crash. He was slightly delayed because he was monitoring an automobile chase in downtown Edmonton. During his flight he experienced light rain but this did not interfere with his visibility. He described the area around the crash site as being a dark rural area; he found difficulty in seeing the ground. When he arrived at the crash site, the cockpit of the aircraft was burning.

The Investigation

The Transport Safety Board (the Board) is responsible for investigating all aircraft crashes in Canada. The Board is separate and apart from Transport Canada; the Board does not report to any particular Minister rather the Board reports to the privy council. Various levels of investigations are undertaken after airplane crashes. In this instance a level 5 investigation was undertaken whereby information was gathered. A full investigation was not deemed necessary.

On April 22, 2004, at 1:10 a.m. John Pearson, the main investigator and Mr. Jerry Kemp, the technical investigator, arrived at the crash site. Mr. Kemp has extensive background as an aircraft mechanic. The investigators viewed the scene as best they could in the darkness and waited for the removal of Mr. Wintermute's body. R.C.M.P. officers took over guarding the crash scene until they returned the next morning.

The next morning the investigators viewed the wreckage at the scene. When they completed their on-site investigation, the aircraft was removed so that it could be more closely inspected elsewhere.

Mr. Pearson checked the altitude of the crash sight and found that it was 2180 feet above sea level. The aircraft struck two grain bins that were filled with barley. The bins were 18 feet above ground level. Marks were found on each grain bin 12-15 feet above ground level. The roof of the south bin was found wrapped around the left wing of the aircraft. The markings on each bin are consistent with the right wing striking the north bin and the left wing striking the left bin.

The evidence is also consistent with a severe post-impact fire erupting after the collision of the wings with the grain bins. The flames from the fire consumed the cockpit and the instruments contained therein. The doors were thrown clear of the area of the fire. There was no soot or smoke found on these doors. The fire extinguisher was not used in flight. These factors are such

that it can be safely concluded that the aircraft was not on fire prior to impact. The blades of the propeller showed no sign of leading edge damage, but the blades were bent. This is indicative that the propeller was turning at the time of the impact, did not strike the grain bins, and the damage to the propellers was due to contact with the ground.

The throttle of the aircraft was in an intermediate position indicative that the aircraft was not running on full power at the time of the collision. However, Mr. Kemp's examination of the engine revealed nothing that would prevent the engine from operating at full power. Mr. Kemp's examination of the engine revealed no evidence of in-flight leaks.

A pouch was found near the damaged aircraft. It contained an exercise "Night Flying" with Mr. Wintermute's handwritten notes thereupon, a night training syllabus from the Edmonton Flying Club, technical material pertaining to the aircraft, and a copy of the aircraft journey logs. Also found near the aircraft was a pair of broken eyeglasses.

No maps or charts were located. This is not surprising since most pilots would have such items accessible within the cockpit. If Mr. Wintermute had been using any maps these would have been destroyed in the cockpit fire.

Documents recovered at the scene indicated that the aircraft was manufactured in 2001. The records indicated that it was certified and maintained in accordance with Transport Canada regulations.

Mr. Pearson's investigation did not reveal evidence that the pilot was suffering from fatigue. He admitted that the pilot was prohibited from operating an aircraft when suffering or likely suffering from fatigue: *regulation 602.02*.

Mr. Pearson did not conduct an investigation of the Edmonton Flying Club. Nor did he attempt to compare their operation to the operation of other flying units.

The Medical Examiner's Report

An autopsy was performed upon the body of Mr. Wintermute by Dr. Bernard Bennach, a pathologist who is employed by Alberta Justice as a medical examiner. When he examined Mr. Wintermute's body, he found that the body had been partially destroyed by fire. He discovered evidence of multiple lethal blunt force injuries with associated bleeding. Mr. Wintermute's spleen and liver were torn. Numerous fractures were observed. Toxicological examination revealed that the blood carbon monoxide level was less than 5%. This evidence combined with the absence of soot within Mr. Wintermute's airways led Dr. Bannach to opine that Mr. Wintermute was dead when the fire began. Dr. Bannach found evidence of blockage of the arteries to the heart; however, this was not a contributing factor in the death of Mr. Wintermute. In Dr. Bannach's opinion, Mr. Wintermute's death was due to multiple blunt force injuries sustained at the time of the aircraft crash. Since Mr. McGrath confirmed that the fire started immediately after impact, it is safe to assume that Mr. Wintermute died instantaneously when the aircraft collided with the bins before the fire started.

Edmonton Flying Club

It cannot be overlooked that at the time of his death that Mr. Wintermute was taking training from an instructor at the Edmonton Flying Club. At the time of these events, the club was certified by Transport Canada as a flight training unit (FTU). Most flying instructors are employed by an FTU. FTUs are certified by Transport Canada. The club received its first certificate in 1948. To maintain their certification, FTUs must maintain certain standards which are set out in the CARs. If the FTU does not live up to these standards, the unit can be suspended. Transport Canada

audits or does inspections yearly. The audit process is a complete inspection of all aspects of the FTU whereas an inspection is focused on a few chosen areas. Both are conducted in accordance with an Inspection and Audit manual used by Transport Canada. Transport Canada designates a primary inspector for each FTU. At the time of the crash Janet Chrystian was the primary inspector for the club. She has been employed by Transport Canada as a civil aviation inspector for eight years. She is a class 1 flying instructor, was a flight instructor at the club for eight years, and the Chief Flying Instructor with the club for two years. The last audit prior to the air crash took place between March 10 and 14, 2003. The audit identified 23 deficiencies to the club. None of the deficiencies put the public at risk but were administrative in nature. The deficiencies were rectified by the club. The club was inspected on March 30, 2004. At that time two deficiencies were identified. Both dealt with record keeping. The club made corrective action which satisfied Transport Canada. Because of the crash, a specialty audit was carried out between September 27 and September 30, 2004. Six deficiencies were noted. Three dealt with record keeping. One dealt with storage of baggage. The other two deficiencies were:

- The flight training program outline did not properly differentiate between weather minima for cross country, local, dual or solo.
- Not all defects in aircraft were being entered in accordance with CARs.

These deficiencies were addressed in a timely manner by Gordon Welsby who was appointed the new chief flying instructor of the club on April 28, 2004, when Mr. Duchesne left on his own accord to seek employment as an air transport pilot. Although these deficiencies were noted, the audit report said that none of the identified deficiencies “had an immediate impact on safety.”

Mr. Welsby is a class 1 instructor with 35 years of flying. When he took over he made several changes to the procedures at the club to prevent another incident. He changed the night flying syllabus so that the training of all students was more uniform. In addition, he prohibited class 4 instructors from signing out students for night flights. Also, he adopted a process whereby he would interview every night flying trainee prior to any night flight. He wanted to know about any stress or fatigue. Night flights were scheduled for the early evening.

Mr. Melnyk sought Mr. Welsby's approval to become certified as a class 3 instructor. He could not be approved to advance to that level without Mr. Welsby's recommendation. Mr. Welsby was not satisfied with Mr. Melnyk's progress so he withheld his approval. Six months after the crash Mr. Melnyk left the club.

Transport Canada keeps very few statistics relating to FTU's. Transport Canada makes certain that any FTU meets the minima set out in CARs but does not generally compare one FTU with others to determine whether one is better than another. A statistic that is kept by Transport Canada is the based upon the results of persons tested for pilot lessons. For the period January 1, 2003 to January 1, 2004 the national statistics for all FTUs were available. These can be compared with the results achieved by persons trained by the Edmonton Flying Club who are tested for licences. The success rate for all candidates tested nationally was 84.56 %; the club's rating was 75%. On the other hand the club had a slightly higher number of flight candidates who scored an ideal score than the national rate: 51.4% vs. 40.97%. So, the club had mixed results in that time period.

Summary of Factual Findings

Mr. Wintermute was flying solo as part of the training to receive his night endorsement. His flight instructor, Mr. Ryan Duchesne, felt that he was ready to replicate a cross country flight solo which the two of them approximately 19 hours before had completed together on a dual flight. Mr. Duchesne was confident that Mr. Wintermute would successfully complete his assignment.

The purpose of the assignment was to have Mr. Wintermute practice night navigation by using radio directional equipment in his aircraft or fly using ADF equipment. Mr. Wintermute was, by all accounts, a focused man and no doubt was attempting to follow his assignment. In this instance, Mr. Duchesne was not available to personally sign out Mr. Wintermute because he was in Peace River. Mr. Duchesne wanted Mr. Wintermute to practice instrument flying as soon as possible. Thus, he arranged for another instructor, Mr. Melnyk, to do so. Mr. Melnyk was a class 4 flight instructor who was qualified to approve Mr. Wintermute's solo flight. Mr. Melnyk had spoken to Mr. Duchesne about Mr. Wintermute's assignment. Mr. Wintermute told him that he intended to practice landings and take-offs at the Tofield Airport; exercises that were not undertaken on his flight with Mr. Duchesne. During his pre-flight briefing with Mr. Wintermute, Mr. Melnyk satisfied himself that Mr. Wintermute had sufficient experience to conduct the solo flight. Part of that briefing related to the weather. Mr. Wintermute assured him that he checked with Flight Services relating to the weather. Mr. Melnyk had checked on the Nav. Canada website on the internet concerning the weather. All of the information forecast appropriate weather and visibility for the intended flight.

Mr. Wintermute as the pilot of the aircraft was responsible for the safety of the air craft; indeed, the *CARs* confirm the pilot's numerous responsibilities. He was expected to check the aircraft and the aircraft documentation to assure himself that the aircraft was suitable to fly including having certain equipment. The documentation that he took with him relating to the aircraft assured him that the aircraft was airworthy. No mechanical difficulties were found by the investigators that would have contributed to the crash. In addition, Mr. Wintermute was expected to bring certain navigational charts with him dealing with the area. He was required by the *CARs* to bring with him a manual that gave him information concerning airports. He was expected to look for landmarks along the way and chart a course for Tofield.

The flight started uneventfully. At the beginning of the flight the aircraft appeared to be headed for Tofield. Then the aircraft adopted a heading for Vegreville. The aircraft went to Vegreville and turned back to Edmonton City Centre Airport. On its return voyage it was flying on a path parallel to the path normally expected by an aircraft returning from Tofield. During most of the time he was flying, Mr. Wintermute was in uncontrolled airspace. He was not subject to the directions of any traffic controller. In uncontrolled airspace pilots are free to fly as they wish. He could seek advice from air traffic controllers if he wished. Unless he declared an emergency he would not be subject to the direction of the air traffic controller while in that airspace.

When Mr. Wintermute contacted Mr. Turner, the air traffic controller on duty at Edmonton Centre Airport, it was plainly believed he was south of Sherwood Park. This was not the case; indeed, he was fifteen miles north of Sherwood Park. The only conclusion that can be drawn here is that for some reason Mr. Wintermute was not on the course he expected. Since all the evidence would suggest that Mr. Wintermute was trying to complete the exercise properly, it can only be concluded that he had not been able to fly on a proper ADF bearing but was unaware of his error, and that he believed he had read the instruments correctly.

No one will ever know why he did not know he was off course. A number of questions will never be answered, for example:

- Did Mr. Wintermute plot landmarks along the way? If so, why did he not realize he was not heading to Tofield?
- Did he estimate a time of arrival to Tofield? If so, why did he not realize that he had taken longer to get there than he should have?
- Did he try to turn on the lights at Vegreville believing he was in Tofield? If he did so on the frequency suggested for Tofield he would not have been able to do so. Why

did he not realize that something was wrong?

Being off course in itself would not have been fatal. Had visibility been clear Mr. Wintermute would easily have been able to see the lights of Edmonton and been able to fly back to the City Centre Airport. Unfortunately he was flying in an area where the visibility became reduced by cloud and light rain. He decided to locate clear air by changing his course and descended in order to do so. It was his original declared intention to descend to 3500 feet above sea level. Later he told the air traffic controller he went to 3200 feet. Thereafter he descended further. Had he remained at 3000 feet above sea level he would have been safe. It will never be known why he descended further. Had he been consulting the charts of the area he should have known that this was the minimum recommended altitude above sea level. It will also never be known why he did not follow the recommended procedure of turning around 180 degrees while maintaining the same altitude while flying level. If he felt he was in an emergency situation why did he not declare an emergency so that he could be given priority and assistance by the air traffic controller?

For some reason he flew at a dangerously low altitude above sea level. He was flying in a controlled manner when he was observed by the eyewitness. Because of the dark sky and the darkened rural area I can only conclude that he did not realize how close he was to the ground. Nor did he see the grain bins which the aircraft collided with.

He may have survived had he been able to correct this path. The tragedy of this incident is that Mr. Wintermute was unaware of the imminent danger he faced. When his aircraft collided with the grain bins I conclude he died instantaneously.

It is difficult to determine with any degree of precision why Mr. Wintermute descended to the dangerous altitude he did. I can only surmise that he found himself in an extremely stressful situation and stress likely affected the choices he made that evening.

Recommendations for the prevention of similar deaths:

Counsel with standing at the inquiry asked if they had any submissions as to possible recommendations to prevent similar deaths.

The Oral Submission

Mr. Gregory Heinrichs, counsel for the Wintermute family, submitted both oral and written submissions concerning recommendations to be made by me. In his oral submission, Mr. Heinrich proposed one recommendation for consideration. In his written submission he proposed four recommendations for consideration.

Let me set out that recommendation as I understood it from Mr. Heinrichs' oral submissions. He submitted that procedures be changed so that flight instructors be required to follow the flight of a student who are flying solo. It was his submission that the instructors should be in the control tower where the instructor would have access to radar tracking of the student's flight throughout. Further, the instructor should have the ability to have radio communication with the student during the flight so that the instructor could provide instruction to the student to prevent danger from arising.

I indicated that I would consider the suggested recommendation; however, I asked counsel who had standing at the inquiry to provide me with written responses to that recommendation if they so desired. Mr. Gregory Wells, counsel for the Edmonton Flying Club, and Mr. Peter Barber, counsel for the Government of Canada provided me with written responses.

Certainly, anyone in the air industry must be saddened by the death of Mr. Wintermute, who loved to fly and died during training. Mistakes are likely to be made by anyone who is training for any occupation or hobby; it is seldom that an error of students would result in their death.

This is a well meaning recommendation and has some facial attraction.

Mr. Melnyk, the flight instructor who approved Mr. Wintermute's flight was, as it happens, in the air and heard the radio transmissions between the tower controller and Mr. Wintermute. He testified that he realized that Mr. Wintermute appeared to be in difficulty. He did not provide any additional instructions to Mr. Wintermute. If the recommendation was in effect Mr. Melnyk would have been trained to do so.

A change of this nature has wide ramifications. After all, solo flights are made by student pilots throughout Canada and throughout the world. Airspace, pilots, flying schools and flight instructors are subject to numerous regulations; flying schools are subject to inspection and audit. Safety in the air is a concern for the Government of Canada and other countries. The most effective manner to implement such a recommendation is that the federal regulations be amended. This is of course possible but it is not as simple as it sounds. The federal regulations are a reflection of international standards throughout the world. Canada would need to consult all countries involved in flying to implement such a change. Although it is possible, it would take considerable study and consultation before such a change could be made. No aviation experts were called to address the national and international ramifications of the proposed change. Without such evidence I am unable to make a recommendation of this nature.

Of course, the recommendation could be carried out if it was a recommendation that was applicable only to the Edmonton Flying Club. Flying schools or flight training units are bound by regulation. Regulations provide minimum standards; nothing prevents a flight school from having higher standards. Indeed, the evidence revealed that the Edmonton Flying Club has higher visibility standards than required in the regulations. A recommendation for a change to their procedure would only affect one school and should it prove effective, other schools might be tempted to follow its lead.

To determine if I should make this recommendation, I must determine if it is a good idea that might serve to prevent similar deaths, and is practical. The first part of the recommendation is that the instructor be allowed in the control tower. If an instructor could follow his or her student on radar then the instructor might realize that the student is not performing his assignment and intercede to provide assistance.

The evidence revealed that having a flight instructor in a tower is unusual. Airport towers are probably subject to greater security protocols since the terrorist attacks of September 11, 2001. However, I will presume that flight instructors could be cleared for security reasons to be in control towers. Nevertheless, there might be times when security would require that instructors be denied access for special security concerns so that access to the tower is not available to instructors; this would reduce the value of the recommendation. The difficulty with the presence of an instructor in a control tower is that air traffic controllers can be very busy. The primary function of air traffic controllers is to provide safe air space to aircraft in the controlled airspace around their tower. On this occasion, the air traffic was not particularly busy and Mr. Turner, the air traffic controller, was alone in the control tower. However, that is not always the case. If the recommendation is put into effect then instructors would be in busy control towers which could create congestion. It might serve to reduce the ability of the air traffic controllers to deal with their main job of creating separation between aircraft in controlled airspace for which they are responsible. It must be remembered that air traffic controllers are given extensive training relating to the movement of air traffic. Instructors would likely need further training to be able to interpret radar information properly.

Transmissions to pilots by radio from instructors also create problems. The use of tower frequencies is limited to air traffic controllers and air traffic because instructions may need to be issued urgently. Any other user could use up valuable air time instructing student pilots when other aircraft might be need of information. In any event, the air traffic controller is in the best position to advise any pilot of safe course changes to avoid other aircraft. If the instructor were on a separate frequency from the controller, then the pilot might be unable to hear necessary instructions from controllers. Confusion might result if two different individuals, the controller and the instructor were both advising the pilot.

The goal of flight training is to give pilots the tools to operate safely and make independent decisions. Throughout their training pilots are trained to fly safely and to take precautions. Part of that training requires them to fly solo since licencing approves them to be a pilot in command with all its responsibilities. Flying can be dangerous. Those of us who are simply passengers on flights tend to take the dangers for granted. Pilots are called upon to make vital decisions in stressful circumstances for the safety of the aircraft, themselves and their passengers. They are generally in the best position to do so because they have knowledge of the situation that confronts them and the training to deal with it. The entire fabric of airline safety is based upon the responsibility of the pilot to make these decisions. Pilots have instruments in their cockpit that provide them with vital information related to the bearing, altitude, and attitude of their aircraft. They are required to have charts of the areas they traverse which set out minimum altitudes. Weather information is available to them in flight. They can obtain assistance from air traffic controllers while flying. If they declare an emergency they are given priority. When they are flying VFR, they are required to maintain certain levels of visibility. They are also taught to fly back to safety if visibility is reduced. They may be flying alone but their training, their instruments, and their accessibility to assistance from air traffic controllers makes loss of visibility a factor which can be dealt with on most occasions.

I have carefully considered the suggested recommendation. I do not believe that this recommendation would prevent similar deaths in future. Indeed, it might create further difficulty.

Mr. Heinrich=s Written Submissions

On March 27, I received a written submission from Mr. Heinrichs that set out four suggested recommendations:

- (a) Instructors authorized to sign out students should have a significant amount of actual instruction experience and a higher level of training than simply a level 4 instruction certificate;
- (b) The instructor who is signing the student out must complete a written checklist of objective minimum criteria which must be met before the instructor is authorized to sign out the student. The checklist should include higher weather criteria than currently required (better weather) which must be present before the instructor is allowed to sign the student out;
- (c) Requirements that compel that instructor/flying school be accessible and available to communicate with the student, during the flight, in a manner to be pre-arranged and has a high level of reliability (such as radio communication); and
- (d) Requirements that compel the instructor/flying school to notify the Air Traffic Controllers that the plan in question is operated by a student on a night flight solo cross country flight and provide the air traffic controllers with information as to how to contact the instructor/flight school if they identify the plane/operator are encountering difficulties.

Let me deal with written recommendations in order.

This first recommendation would seek to prevent level 4 instructors from signing out students to fly solo flights. Level 4 instructors, being the entry level instructors, are subject to supervision by level 1 or 2 instructors. In addition, their students must fly with level 2 or 1 instructors prior to being recommended by a flight training unit for a pilot's license. Mr. Melnyk who signed Mr. Wintermute out on the night of the fatal flight was a level 4 instructor who had some difficulty maintaining his level 4 status. However, at the time he was qualified as a level 4 instructor. After this incident, Mr. Welsby who became the chief flying instructor for the Edmonton Flying Club changed the procedure so that level 4 instructors could not sign out individuals on night solos. Whether that procedure has been changed since Ms. Welsby resigned is not clear. However, it seems to me that no one should be an instructor unless he or she is capable of signing out a trainee for a solo flight. While experience undoubtedly is an asset in making such a decision whether to approve the flight of a student pilot, all instructors who instruct anyone must have a sufficient degree of competence to sign out a pilot trainee on a solo flight. If they cannot meet this standard they should not be instructing at any level. To hold otherwise would lower the standard required to be certified as an instructor. Consequently, I do not believe that this recommendation is warranted.

The second recommendation suggests a written checklist with objective minimum criteria before an instructor sign out a student. Prior to any solo flight undertaken by a student pilot an instructor must have a pre-flight briefing to approve the solo flight undertaken; if the instructor conducting the pre-flight briefing is not satisfied the pilot will not be signed out to fly solo. The actual matters covered in the pre-flight briefing are a matter of discretion and left to the individual instructor. Janet Chyrstian, who is currently a civil aviation inspection with Transport Canada testified at the inquiry. She is currently assigned as the chief inspector of the Edmonton Flying Club. She had previously been an instructor and chief flight instructor at the club. She outlined her approach in pre-flight meetings with trainees. However, she indicated that the regulations did not require the topics to be covered in the pre-flight approval, nor does Transport Canada require such a list. The club does not have any check list presently. Clearing a trainee to fly solo is a serious and complex responsibility. It would seem to me that a checklist would be beneficial for the instructor to serve as a reminder of the topics to be covered. In my view it is not a great imposition for a check list to be filled out by the instructor during the pre-flight briefing. Hence, I believe that a recommendation could be useful in serving to promote safety in the air.

The third recommendation is a variation on the oral submissions made by Mr. Heinrichs. For the reasons I have set out above I do not believe that such a recommendation would serve to promote air safety.

The fourth recommendation is in two parts. The first portion would require flight schools or instructors to notify air traffic controllers that the pilot is flying his or her first night solo. Air traffic controllers can be very busy; their primary duty is to separate aircraft within the controlled flying areas near their airport. Pilots who are in command, including student pilots, are expected to be able to communicate with and receive instructions from air traffic controllers. Pilots must follow the instructions of air traffic controllers when they are in airspace controlled by the tower. Pilots are expected to follow direction of the tower controller when the pilot declares an emergency. In addition, pilots may seek advice when not in controlled airspace from the tower. The experience of a pilot may be a factor in determining the degree of advice given by the air traffic controller. Knowledge by the air traffic controller that this is the trainee's first solo flight may assist the air traffic controller with the right level of advice. Certainly, air safety is in the best interest of everyone.

The second part of the fourth recommendation in my view would not be useful. Pilots in distress will need the guidance and direction of one person and not several. Since the air traffic

controllers are in the best position to provide direction they should do so.

Recommendations

I make the following recommendations to prevent similar deaths:

- That the Edmonton Flying Club and other flight training units develop a written checklist of objective minimum criteria which must be met before an instructor a instructor is authorized to sign out a student. Further that this written checklist be completed by the instructors during their pre-flight briefings.
- That instructors or flight training units inform the air traffic controllers that the pilot trainees are undertaking their first solo flight.

Mr. Wintermute died a tragic and premature death during pilot training. Unfortunately, he found himself flying in unforeseeably bad weather. The lack of visibility due to the weather conditions caused him to become disorientated and descend to a dangerously low altitude. The circumstances of his death have been meticulously explored during this inquiry. Other individuals may find themselves in similar circumstances in future. Air safety is a concern for everyone. Hopefully these simple recommendations may prove useful.

DATED May 3, 2007 ,

at Edmonton , Alberta.

Michael Allen
A Judge of the Provincial Court of Alberta