

PITT MEADOWS AIRPORT ADVISORY COMMITTEE

MINUTES of the Regular Meeting of the Pitt Meadows Airport Advisory Committee held at 7:00 p.m. on November 27, 2017 in the Meadows Room of the Pitt Meadows City Hall, 12007 Harris Road, Pitt Meadows, British Columbia.

PRESENT:

Committee Members:

Reg Moen (Chair)
Bob Meachen (Vice Chair)
Ron Blakely
Tom Heise
Peter Jongbloed
Johanne Rensmaag
Twyla Rickman

Ex-Officio Members:

Mayor John Becker
Councillor Bruce Bell

Other Council:

Councillor Mike Stark

Staff:

Kate Zanon, Director of Community Services

REGRETS:

Jim Clements

Secretary:

Kate Barchard

The meeting was called to order at 7:01 p.m.

1. LATE ITEMS

There was consensus that 'Committee Membership' be added to the agenda.

2. APPROVAL OF AGENDA

MOVED by P. Jongbloed, **SECONDED** by T. Heise, **THAT** the Agenda for Nov 27, 2017 Regular Committee Meeting be approved as amended to include 'Committee Membership' under New Business.

CARRIED.

3. ADOPTION OF MINUTES

- 3.1. Minutes of the September 18, 2017 Regular Committee Meeting and the October 30, 2017 Special Committee Meeting.

MOVED by P. Jongbloed, **SECONDED** by B. Meachen, **THAT** the Minutes of the Sept 18, 2017 and Oct 30, 2017 Committee Meetings, be adopted.

CARRIED.

4. ACTION ITEMS

- 4.1. Staff submission of recommendations to Council as per Sep 18, 2017 meeting

4.1.1. Training

The Committee requested that B. Bell bring forward to Council the recommendation that new regular visitors to the airport receive airside training regarding emergency operations and gate procedures.

4.1.2. Noise Sensitive Areas

RECOMMENDATION

MOVED by R. Blakely, **SECONDED** by P Jongbloed., **THAT** the Committee recommend that Council consider requesting the Pitt Meadows Airport Management to clearly define and identify noise sensitive areas on the YPK Fly Neighbourly Program supplement.

CARRIED.

- 4.2. Low Flying Incident – process improvement recommendations as per Sep. 18, 2017 meeting

RECOMMENDATION

MOVED by R. Blakely, **SECONDED** by B. Meachen, **THAT** the Committee recommend that Council receive the following documents:

- The Committee Report regarding the Fly Neighbourly program and the July 16 low flying incident (Attachment A);
- Transport Canada correspondence received by J. Rensmaag regarding the July 16 low flying incident (Attachment B); and
- The Committee Recommendations related to the Fly Neighbourly Program and the July 16 low flying incident (Attachment C).

CARRIED.

- 4.3. YPK Fly Neighbourly Document – further feedback as per Sep. 18, 2017 meeting

The Committee discussed the excessive noise pollution from certain airplanes and the need for a feedback mechanism by which Airport management engages community members regarding complaints that are submitted online.

5. NEW BUSINESS

- 5.1. Proposed 2018 Meeting Schedule

The Committee discussed the proposed 2018 meeting schedule and agreed that a bi-monthly schedule was preferred, with the following dates put forward: Jan 29, March 26, May 28, July 23, Sep 24, and Nov 26.

MOVED by T. Rickman, **SECONDED** by J. Rensmaag, **THAT** the proposed 2018 Committee Meeting calendar be adopted with the amended/additional meeting dates noted above.

CARRIED.

ACTION: K. Barchard to distribute the finalized 2018 PMAAC Meeting Schedule.

- 5.2. Committee Membership

The Committee discussed the process in place for the appointment and renewal of members on council appointed committees.

The Committee would like to acknowledge and give thanks to Jim Clements and Bob Meachen for their contribution and service to the Pitt Meadows Airport Advisory Committee.

6. INFORMATION ITEMS

The following items were discussed in a round table format:

- 6.1. Nov 7, 2017 Council Agenda item re: bylaw enforcement strategy at Pitt Meadows Airport.
- 6.2. Article in recent 'Outlook' insert in local paper regarding the Pitt Meadows Airport.

- 6.3. Using social media platforms to communicate PMAAC activity, agendas and minutes with the broader community.

NOTE: information regarding PMAAC, including agendas and minutes, can be found on the PMAAC webpage of the City of Pitt Meadows website, located at:

http://www.pittmeadows.bc.ca/EN/main/cityhall/committees-and-commissions/Airport_Steering_Committee.html

- 6.4. PMAAC Annual Status Report submission to Council

ACTION: to be added to January agenda.

- 6.5. B. Meachen thanked the Committee for the past year and for the pleasure of serving alongside them.

- 6.6. Creating opportunity for the aviation community to interface with the PMAAC on important issues.

7. **ADJOURNMENT**

The next Committee meeting will be held on Jan 29, 2018, at 7:00pm.

MOVED by T. Heise , **SECONDED** by P. Jongbloed, **THAT** this meeting be adjourned at 8:43 p.m.

CARRIED.

Signed:

Certified Correct:

Chair

Committee Secretary

**REPORT and RECOMMENDATIONS to
PITT MEADOWS AIRPORT ADVISORY COMMITTEE
CONCERNING A LOW FLYING INCIDENT AT YPK**

INTRODUCTION

On 16 July 2017 a low flying incident occurred at YPK that deserves the attention of this Committee.

This report and is consistent with The Terms of Reference of the Pitt Meadows Airport Advisory Committee which define the Purpose of the Committee as *"...expected to obtain diverse views from community and airport interests on airport matters affecting the community...."*

Further, Paragraph 4 of the Terms of Reference under Activities, states that: *"To achieve this aim, PMAAC may undertake the following actions: ...-listen to community interests affected by airport activities."*

SUMMARY OF INCIDENT

At about 7:03 pm on Sunday 16 July 2017 an aircraft departing YPK passed over homes just west of Pitt Meadows Regional Airport at a low altitude and steep angle of bank while emitting loud engine noise.

The track of the aircraft is available to the public through the webtrack5 program which can be accessed through the YVR website at: <http://webtrak5.bksv.com/yvr5>. Appendix A is a time series of records for the departing aircraft copied from the webtracker5 website. The aircraft departed Runway 27L at YPK, passed, at low level, over residences along Ford Road Detour, executed a small radius 180 degrees turn and then travelled east back toward the airport.

According to Webtrack5 the altitude of the aircraft was 100 to 200 ft when making the small radius turn over the residences

The 180 degree turn with a measured diameter about 250 feet was entered at a reported speed of about 123 mph. According to the “Aircraft Turn Information Calculator” available at www.csgnetwork.com such a turn at constant altitude would require a bank angle of 83 degrees. Transport Canada Advisory Circular No 100-001 defines an “aerobatic manoeuvre” as: “*A manoeuvre where a change in the attitude of an aircraft results in a bank angle greater than 60 degrees, an abnormal attitude or an abnormal acceleration not incidental to normal flying*”. Thus, this steep turn was, by Transport Canada’s definition, an aerobatic manoeuvre. Aerobatic manoeuvres are not normal within YPK controlled airspace.

Because of the g loading created, a steep turn increases the stall speed of the aircraft.

From: [https://en.wikipedia.org/wiki/Load_factor_\(aeronautics\)](https://en.wikipedia.org/wiki/Load_factor_(aeronautics)) *In turning flight the load factor is normally greater than +1. For example, in a turn with a 60° angle of bank the load factor is +2. Again, if the same turn is performed with the aircraft inverted, the load factor becomes -2. In general, in a balanced turn in which the angle of bank is θ , the load factor n is related to the cosine of θ by the formula:*^{[1][2]:407}

The increase in load factor can be determined from the chart reproduced below which is copied from:

<https://www.google.ca/url?sa=i&rct=j&q=&esrc=s&source=images&cd=&cad=rja&uact=8&ved=0ahUKEwjrvLDUoezVAhUIxGMKHWoDCd0QjRwIBw&url=http%3A%2F%2Favstop.com%2Fac%2Fflighttrainghandbook%2Floadfactorsinsteepturns.html&psig=AFQjCNFuBCcoXbENhD-qaeN-UK2kEbOBtQ&ust=1503540144958288>

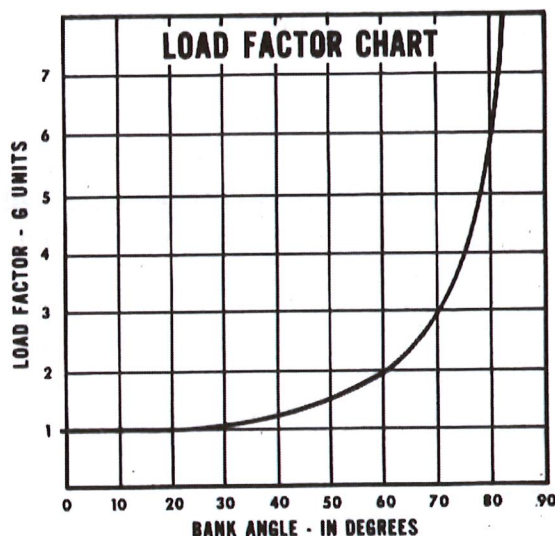


Figure 17-48 Angle of Bank Changes Load Factor

A load factor greater than 1 will cause the stall speed to increase by a factor equal to the square root of the load factor. Thus, the Increase in stall speed= square root of 6 = approximately 2.5.

The characteristics of the aircraft, a , BL 17 Beech Staggerwing, are available at:

[http://www.planeandpilotmag.com/article/beechncraft-](http://www.planeandpilotmag.com/article/beechncraft-staggerwing/#.WZ8MaCiGOUk)

[staggerwing/#.WZ8MaCiGOUk](http://www.planeandpilotmag.com/article/beechncraft-staggerwing/#.WZ8MaCiGOUk)

STANDARD DATA: (G-17S) Seats: 4-5; Gross weight: 4,250 lbs.; Empty weight: 2,800 lbs.; Fuel capacity: 170 gals.; Engine: 450 hp Pratt & Whitney Wasp Junior.

PERFORMANCE: Top speed: 212 mph; Cruise speed: 201 mph; Stall: 60 mph; Initial climb rate: 1,500 fpm; Ceiling: 20,000 ft.; Range: 1,300 nm; Takeoff distance, 50 ft.: 1,130 ft.; Landing distance, 50 ft.: 980 ft.

Thus, during the steep turn the stall speed was increased from 60 mph to $60 * 2.5 = 150$ mph. which means that, during the turn, the aircraft was close to an aerodynamic stall - which would not likely be recoverable from 200 ft altitude.

Rather than at constant altitude, the steep turn may have been a climbing turn known as a "Chandelle".

From: <https://en.wikipedia.org/wiki/Chandelle>

The chandelle (which is the French word for candle) is a precision aircraft control maneuver, and not strictly speaking an aerobatic, dogfighting, or aerial combat maneuver, however it was used with success by Japanese Zero pilots of the Tainan Air Group in 1942 over New Guinea. It is rather a maneuver designed to show the pilot's proficiency in controlling the aircraft while performing a minimum radius climbing turn at a constant rate of turn (expressed usually in degrees per second) through a 180° change of heading, arriving at the new reciprocal heading at an airspeed in the "slow-flight" regime, very near the aerodynamic stall.

From a practical point of view, the chandelle may be used to turn an aircraft within a minimal turn radius. As such it is a useful maneuver for pilots of small aircraft who find themselves in a blind valley or canyon. It was also therefore a useful maneuver to early fighter pilots in their low-powered aircraft to quickly turn toward

a pursuing attacker (which would tend to make a tracking gunshot more difficult because of the turn and climb involved) while climbing but not stalling the aircraft, or to position themselves quickly to make an attack on a turning enemy or an enemy flying on another heading. (Emphasis added)

Normal departure to the East

A normal departure to the east from runway 26 Left would have been “downwind left” for which the aircraft would, on take-off, maintain runway heading (260 deg Magnetic) to an altitude of about 400 ft, followed by two shallow climbing left turns. Appendix B includes a diagram of a standard left hand circuit which is normal and required for all Canadian airports unless otherwise specified in the Canada Flight Supplement or instructed or approved by the tower.

Manoeuvre Compromised Safety

Whether the small radius turn at low level over houses was at constant altitude or a climbing Chandelle, the manoeuvre was inappropriate, compromised safety and distressed nearby residents.

The manoeuvre may have been marginally “legal”, but perhaps Canadian Aviation Regulation 602.01 applies.

“CAR 602.01 No person shall operate an aircraft in such a reckless or negligent manner as to endanger or be likely to endanger the life or property of any person.”

IMPACT ON COMMUNITY

Whether the steep banked turn was at constant altitude or climbing, the manoeuvre was inappropriate and compromised safety.

The low level and steep bank angle of the aircraft, aggravated by its noisy nature and necessary high throttle setting would cause alarm and distress to the residents of the homes near the flight path.

Low level steep turns are not, and should not be, a “fairly common” occurrence at YPK.

INADEQUATE RESPONSE BY AIRPORT ADMINISTRATION TO QUERY

Attached as Appendix C are e-mails exchanged between individuals affected by the low flight and YPK Airport Administration.

The YPK response includes the statement *"....this pilot performed a fish eye manoeuvre, which is a fairly common manoeuvre to navigate across the airfield to the east."*

A "fish eye" manoeuvre is not listed as an Aerobatic Figure by the International Aerobatic Club. A computer search for "fish eye manoeuvre" yielded no information. A query to YPK Administration for a definition/description of the term "fish eye" has not been answered.

This response by Airport Administration was inadequate, demeaning, inaccurate and misleading.

Subsequent Incidents:

Two additional incidents have occurred subsequent to the 16 July 2017 incident described in this report.

On 18 August 2017, about 10:50 a low level pass was made by a jet aircraft which was not reported on WebTrack5. The noise, speed and low level caused concern.

On 4 September 2017, about 10:45 am L29, made a low, fast and noisy pass, which tracked by WebTrack5. The L29 is an ex-military training aircraft. The noise, speed and low level of the aircraft caused concern.

CONCLUSIONS

1. This unconventional departure from YPK, although probably (barely) "legal", compromised safety and distressed neighbours of the airport.
2. The YPK "Good Neighbour Program" failed to prevent the occurrence.
3. The Airport Administration failed to comprehend and appreciate the consternation caused by the low level steep turn.

4. Airport staff were less than considerate when responding to the expressions of concern by neighbours of the airport. The airport staff response was immediately defensive while containing the unsupportable statements that such low level steep turns were a “ *..fairly common maneuver.*”
5. No known action has been taken to reduce the probability of a reoccurrence of this event.

RECOMMENDATIONS

Therefore, it is recommended that the Pitt Meadows Airport Advisory Committee recommend that Pitt Meadows Council:

1. Request that the Board of Pitt Meadows Airport Society instruct YPK Administration to provide an accurate and reasonable response to those affected by this and any such future incident.
2. Request that the Board of Pitt Meadows Airport Society instruct YPK Administration to reduce the probability of a future similar incident by:
 - a. Enhancing the Fly Neighbourly Program, perhaps by adopting a procedure which includes contacting the pilot/owner of aircraft that violate the YPK Good Neighbour Program and;
 - b. Provide relevant information to pilots by revising the Canada Flight Supplement to include information on noise sensitive areas and
 - c. Measures which other airports have found effective.

Prepared by

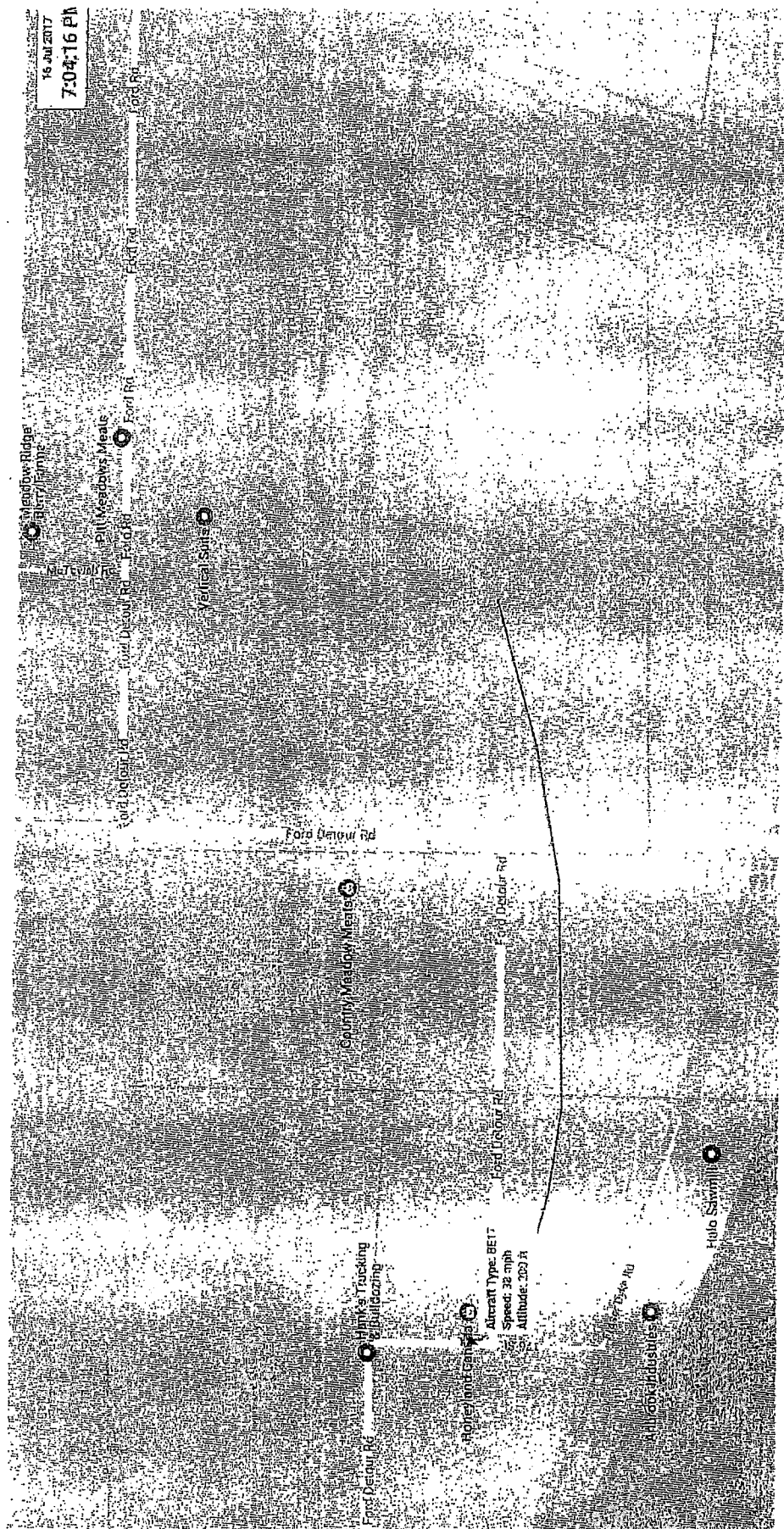
Ron Blakely, member, Pitt Meadows Airport Advisory Committee

Appendix A: Track of aircraft DL17 from WebTracker5

Appendix B: Standard Left Hand Circuit

Appendix C: Emails between affected individuals and Airport Administration

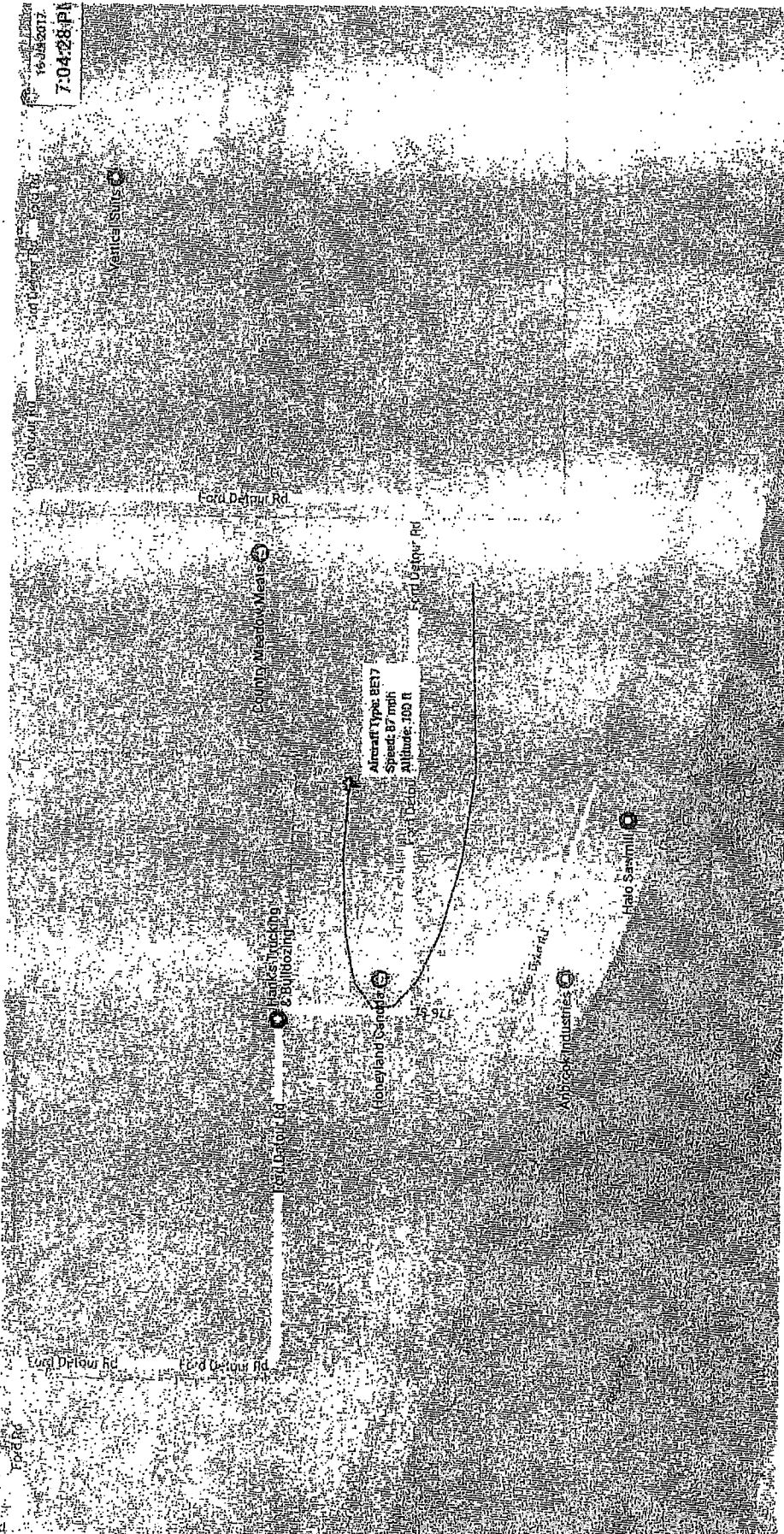
7:04:16 PM
16 JUL 2017



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8/5/2017

WebTrak : Vancouver International Airport



16 JULY 2017 AT 19:04:28

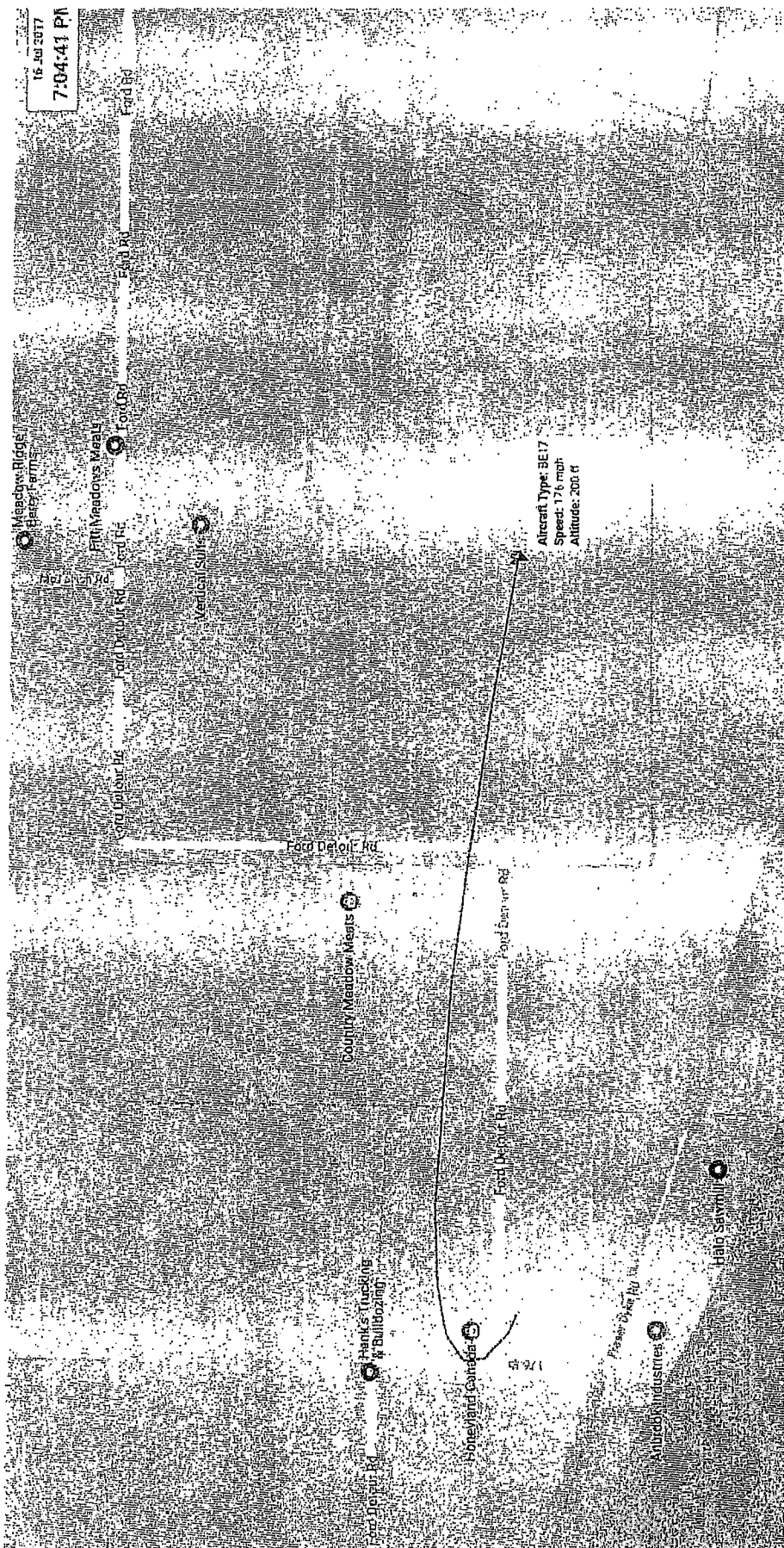
TRACK OF "DL17"

APP A
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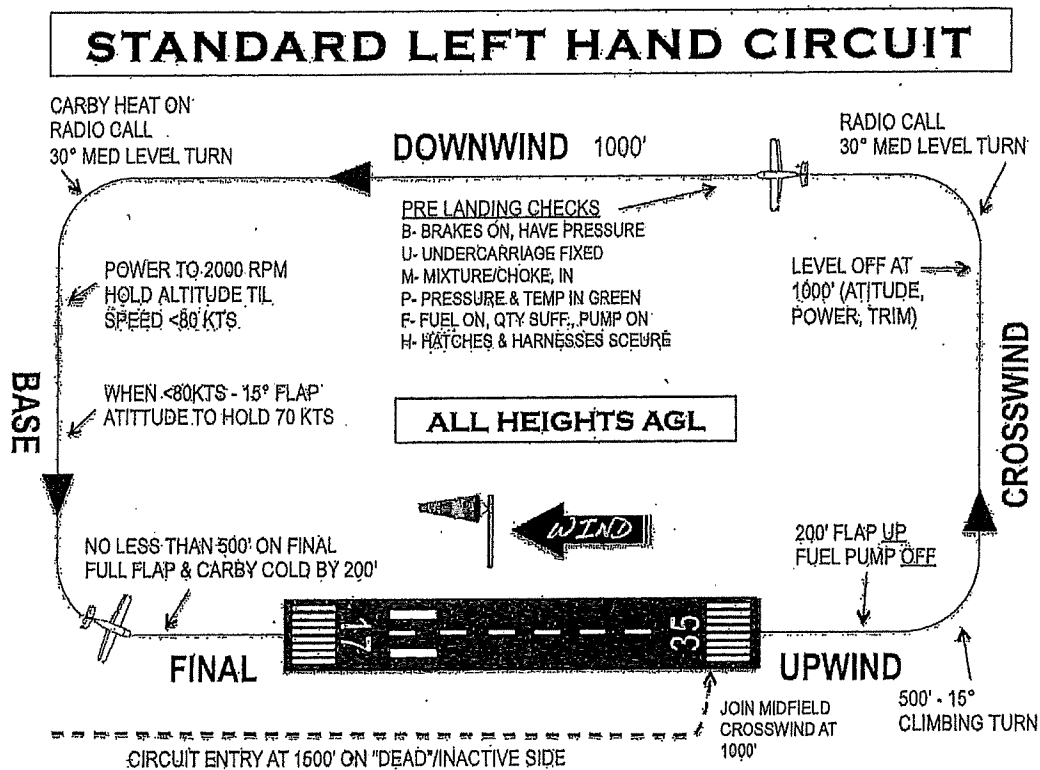
APP. A

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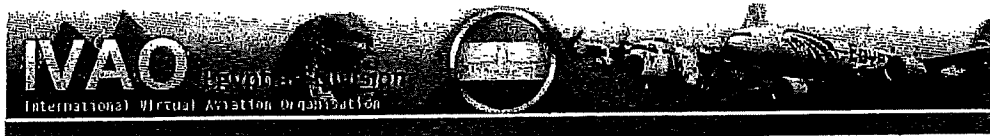
15 Jul 2017 7:04:41 PM



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APP B.
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Learning Goals
FLYING VFR PATTERNS

AERODROME TRAFFIC CIRCUIT

The Aerodrome pattern is a standard path followed by aircrafts when taking off or landing. At an airport, the pattern (or **circuit**) is a standard path for coordinating air traffic. It differs from "straight in approaches" and "direct climb outs" in that aircrafts using a traffic pattern remain close to the airport. Patterns are usually employed at small general aviation (GA) airfields and military airbases. Most large airports avoid the system, unless there is GA activity as well as commercial flights.

Traffic patterns can be defined as left-hand or right-hand, according to which way the turns in the pattern lie.

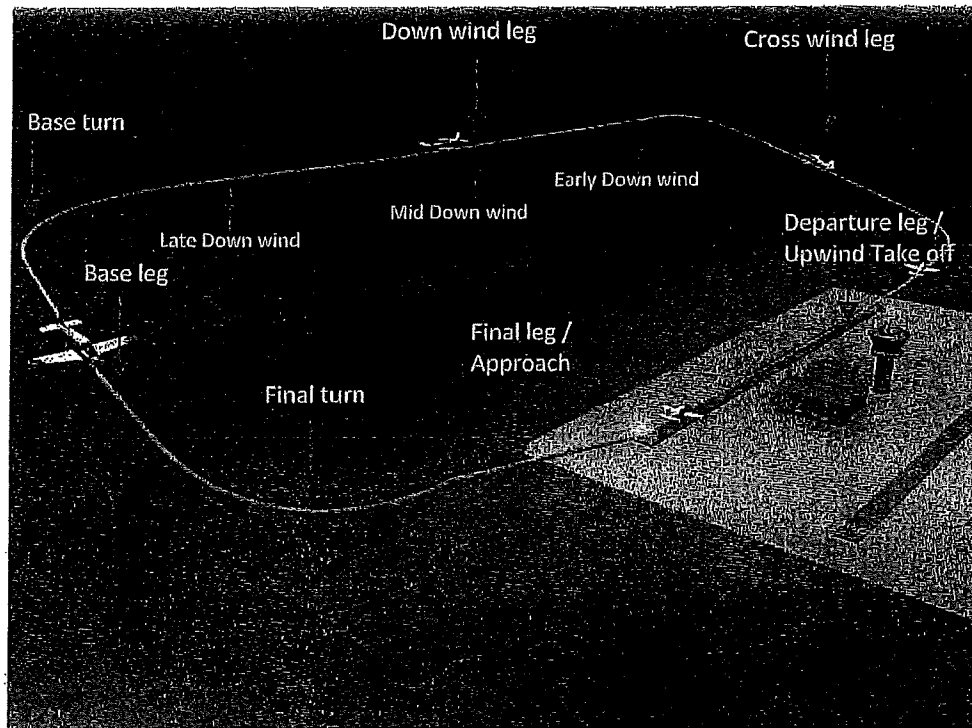
Standard traffic patterns are LEFT HAND CIRCUITS !

This is because most small airplanes are piloted from the left seat (or the senior pilot or pilot in command sits in the left seat), and so the pilot has better visibility out the left window. Right-hand patterns will be set up for parallel runways, for noise abatement or because of ground features (such as terrain, towers, etc.). Helicopters are encouraged, but not required, to use an opposite pattern from fixed wing traffic due to their slower speed and greater manoeuvrability. Because the active runway is chosen to meet the wind at the nearest angle (upwind), the pattern orientation also depends on wind direction. Patterns are typically rectangular in basic shape, and include the runway along one long side of the rectangle. Each leg of the pattern has a particular name:

- **Departure leg:** The section extending from the runway ahead. (Sometimes incorrectly called the *upwind leg*. However, *upwind* properly refers to an approach leg outside the downwind leg and in the opposite direction.)
- **Crosswind leg :** The first short side
- **Downwind leg:** The long side parallel to the runway but flown in the opposite direction. (This leg also consists of three sub legs. There are Early downwind, Mid Downwind and Late downwind)
- **Base leg:** The short side ahead of the runway is called.
- **Final leg :** The section from the end of base leg to the start of the runway (also referred to as *final approach* or *final*)



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WHY

The use of a pattern at airfields is for air safety. Rather than have aircraft flying around the field in a haphazard fashion, by using a pattern pilots will know from where to expect other air traffic, and be able to see it and avoid it. GA pilots flying under Visual Flight Rules (VFR) will not be separated by air traffic control, and so the pattern is a vital way to keep things orderly. Although, at tower-controlled airports, ATC will provide traffic advisories for VFR flights on a work-load permitting basis.

A pilot undergoing training will often fly many patterns, one after another. Usually, each landing is followed immediately by a take off and further pattern; this is called a touch and go, or roller.



<http://eg.lvao.aero/>
Document : V1.1

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CONTRA-ROTATING CIRCUIT PATTERNS

In cases where two or more parallel runways are in operation concurrently, the aircraft operating on the outermost runways are required to perform their patterns in a direction which will not conflict with the other runways. Thus, one runway may be operating with a left-hand pattern direction, and the other one will be operating with a right-hand pattern direction. This allows aircraft to maintain maximum separation during their patterns, however it is important that the aircraft do not stray past the centreline of the runway when joining the final leg, so as to avoid potential collisions. If three or more parallel runways exist, then the middle runway(s) can, for obvious reasons, only be used when either a straight in approach is used or when the aircraft joins the pattern from a very wide base leg.

ALTITUDES

An airfield will define a **circuit height** or **pattern altitude**, that is, a nominal level above the field at which pilots are required to fly while in the circuit. Unless otherwise specified, **the standard pattern height is 1000 ft AGL** (above ground level), although a pattern height of 700 feet above ground level is also relatively common. Helicopters usually fly their pattern at 500 feet above ground level. Extreme caution is exercised by pilots flying the published traffic pattern altitude as this may contribute to mid air collisions

HOW TO FLY

Departure leg: after take-off, fly runway heading.
Crosswind leg: turn left 90° and continue your climb to circuit height.

Note: Make the turn to the crosswind leg after passing 500ft AGL or at the end of the runway, whichever is later !!

Downwind leg: turn left 90° heading opposite the runway heading
Base leg: turn left 90° and start your initial descent.
(reduce speed to 80 knots approach speed)
Final leg: turn left 90° and further descend to touchdown
(touchdown speed 60-65 knots)

REPORTING POINTS

Aircrafts taking off from the airfield for a local VFR training circuit shall report at the following points, unless requested otherwise by ATC:

1: on the Downwind leg stating: "DOWNWIND" including intentions like full stop landing, touch and go, stop and go, low pass fly by.

*Note: when you are flying a right hand pattern the pilot shall report :
"RIGHTHAND DOWNWIND"*

2: on Final



<http://eg.lvao.aero/>
Document : V1.1

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APP B
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On 7/19/17 3:59 PM Stephen Vandolder wrote:

Ms.

I have investigated this occurrence, which included reviewing flight tracker and communicating with Nav Canada. The outcome of my research is this pilot performed a fish eye maneuver, which is a fairly common maneuver, to navigate across the airfield to the east. The pilot was operating in compliance to the flying practices established by Transport Canada. That being said, we will continue to educate pilots with our Fly Neighborly program to raise awareness of the impacts they make in the communities surrounding our airport. Please never hesitate to contact me with any of your concerns.

Please note, a web based flight tracker you may be using may not be accurate with altitude and speed.

Regards,

STEPHEN VAN DOLDER
SUPERVISOR - OPERATIONS
YPK REGIONAL AIRPORT

T. [604.465.8977](tel:604.465.8977)

C. [604.861.6458](tel:604.861.6458)

W. flyypk.ca

APP C
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Re: Biplane BE17

STEPHEN VAN DOLDER
SUPERVISOR - OPERATIONS
YPK REGIONAL AIRPORT

T. 604.465.8977

C. 604.861.6458

W. flyypk.ca

From:

Sent: July 16, 2017 7:34 PM

To: Elvio Pecchia <epecchia@flyypk.ca>; Stephen Vandolder <svandolder@flyypk.ca>

Cc: John Becker <jbecker@pittmeadows.bc.ca>; Bruce Bell <bbell@nittmeadows.bc.ca>

Hello,

I am reporting a very irresponsible maneuver by a pilot in a yellow biplane that just flew over our homes at approximately 7:05pm this evening far below the altitude (100ft or lower) that is considered safe and at a speed of approx. 228mph as it flew over our homes.

This pilot needs to be grounded for what he has just done. It was unbelievable. It completely frightened the seniors living here, the farm animals, our neighbourhood dogs and all of us.

Please investigate this incident and I would like an answer as to how this pilot will be reprimanded. This was not what would be considered "acceptable" by any stretch of the imagination.

APP C
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2017-08-05 11:06 A

----- Forwarded Message -----

Subject:FW: Emailing - Low Flying Complaint Form.pdf

Date:Mon, 6 Nov 2017 17:00:48 -0500

From:Ellis, Jeffrey <Jeffrey.Ellis@tc.gc.ca>

To:'

Hi

Thank you for contacting Transport Canada (TC) regarding a low flying occurrence of a BE-17 type aircraft at the Pitt Meadows Airport in July. Please accept my apologies for the delay in responding.

Our enforcement team reviewed the information provided and determined that there were no violations to the Canadian Aviation Regulations. Additionally, although the departure procedure may not have been necessary NAV CANADA was aware of the manoeuvre.

I have also attached an updated low-flying complaint form with our new email address for your future use if needed.

If you have any questions please feel free to contact me.

Sincerely,

Jeffrey Ellis

Regional Manager, Civil Aviation Secretariat

Transport Canada | Government of Canada

jeffrey.ellis@tc.gc.ca | Tel: 604-666-7819 / Cel: 604-671-4049 / TTY 1-888-675-6863

Gestionnaire régionale, Secrétariat de l'aviation civile

Transports Canada | Gouvernement du Canada

jeffrey.ellis@tc.gc.ca | Tél: 604-666-7819 / Tél. cell : 604-671-4049 / ATS 1-888-675-6863

Pitt Meadows Airport Advisory Committee

DRAFT RECOMMENDATIONS TO PITT MEADOWS COUNCIL

The Pitt Meadows Airport Advisory Committee recommends that Pitt Meadows Council:

1. Request that the Board of Pitt Meadows Airport Society instruct YPK Administration to initiate and continue a series of Open House Meetings to facilitate an information exchange between the Airport Administration and the community.
2. Request that the Board of Pitt Meadows Airport Society instruct YPK Administration to provide an accurate and reasonable response to those affected by the low flight incident of 16 July 2017 and all such future incidents.
3. Request that the Board of Pitt Meadows Airport Society instruct YPK Administration to reduce the probability of a future incidents similar to the low flight incident of 16 July 2017 by actions including but not limited to:
 - a. Enhancing the effectiveness of the existing Fly Neighbourly Program, by taking an active approach to distribution of the document, including:
 - i. Posting to a prominent position on YPK website
 - ii. Email to leaseholders and others.
 - iii. Maintain a supply on the Admin counter.
 - iv. Post on the public Bulletin Board in the YPK Coffee Shop.
 - v. Transmit to Aeroclub of BC with a request for redistribution to ACBC members.
 - vi. Transmit to other BC Flying Clubs.
 - vii. Transmit, with an explanation, to Canadian Owners and Pilots Association.
 - b. Adopting a follow up policy and procedure for noise complaints, suspected violation of the Good Neighbour Program or other alleged Regulatory infractions which includes contacting the pilot/owner of the responsible aircraft
 - c. Revise the YPK entry in the Canada Flight Supplement to display information on local noise sensitive areas.
 - d. Add a prominent link on the YPK website to the Webtracker5 program.
 - e. Add a prominent link on the YPK website to the appropriate Transport Canada website for reports of noise, low flight and alleged regulatory infractions.

