



CITY OF RICHMOND

REPORT TO COMMITTEE

TO: Planning Committee
FROM: Terry Crowe
Manager, Policy Planning
RE: Float Aircraft Landing Patterns in the Middle Arm of the Fraser River

TO PLANNING - April 3, 2001
DATE: March 1, 2001
FILE: 6470-01

STAFF RECOMMENDATION

That Council:

1. Request the Vancouver International Airport Authority (YVRAA), Transport Canada, NAV Canada and other relevant agencies, to conduct regular and ongoing monitoring and safety reviews of the float aircraft operations and landing patterns over the middle arm of the Fraser River, and adjacent residential and commercial areas of the City to ensure compliance with current operational procedures; and
2. Request to YVRAA and other relevant agencies that the results of these safety reviews be shared with the City and area residents.

T. Crowe
Terry Crowe
Manager, Policy Planning

Att.

<p>FOR ORIGINATING DIVISION USE ONLY</p> <p>CONCURRENCE OF GENERAL MANAGER</p> <p><i>[Signature]</i></p>
--

STAFF REPORT

ORIGIN

This report:

- informs Council of recent concerns expressed by a Richmond resident in Terra Nova about float aircraft movements and landing patterns over the middle arm of the Fraser River and adjacent residential areas;
- provides the status of YVRAA/Transport Canada's review on this issue; and
- recommends that YVRAA, Transport Canada, and NAV Canada undertake an ongoing monitoring and safety review of float aircraft operations in the vicinity of the middle arm of the Fraser River.

FINDINGS OF FACT

Mr. David Fairweather, a resident of Terra Nova has raised with YVRAA and Transport Canada, potential safety concerns about float aircraft landing patterns and movements in the vicinity of the middle arm of the Fraser River and adjacent residential development areas. (**Attachments 1 and 2**)

Mr. Fairweather's concerns relate primarily to potential safety issues of excessively low aircraft movements (i.e. take off and landing) over residential areas such as Terra Nova. From our understanding and according to established procedure, there is a 500 feet requirement for aircraft operations adjacent to the river over commercial and residential areas. Mr. Fairweather reports that certain flights are below this elevation.

Aircraft noise and safety falls under the jurisdictions of YVRAA, Transport Canada and NAV Canada.

Mr. Fairweather's correspondence to YVRAA and the Authority's actions dating back to 1997 on this issue are also attached to this report. (**Attachment 3**)

ANALYSIS

Mr. Fairweather's concerns relate primarily to safety issues of aircraft flying below the required minimum elevation of 500 feet adjacent to the river and over commercial and residential areas.

In response to Mr. Fairweather's initial enquiries in 1997, YVRAA and Transport Canada, in co-operation with NAV Canada, undertook a safety review of float plane operations. This review was completed in 1998. Recommendations from this review are outlined in **Attachment 3**. From this review, YVRAA System Safety personnel were to conduct frequent and ongoing monitoring activities to ensure that float plane operations are conducted in accordance with published standards. A safety review was to have been conducted in August - September, 1998 as part of the ongoing surveillance of this issue. It is unclear if this ongoing monitoring system was established and undertaken.

The City has no jurisdiction related to aircraft safety. Notwithstanding, the airport operations and related activities have a significant impact on the City and the livability of its neighbourhoods. Both the City and the airport work towards managing these impacts, particularly noise, through various measures.

In the interest of community well-being and livability, ongoing monitoring and safety reviews of float aircraft movements in the vicinity of the middle arm of the Fraser River should be established and the results of these reviews shared with the City and area residents.

Staff have been informed by YVRAA staff that Mr. Fairweather's most recent enquiry, is being handled by the YVRAA's Safety division. A copy of YVRAA's response is attached to this report. **(Attachment 4)**

FINANCIAL IMPACT

None

CONCLUSION

- Terra Nova resident, Mr. David Fairweather has raised potential safety issues related to float aircraft movements and traffic in and adjacent to the middle arm of the Fraser River.
- From our understanding, flight procedures for float plane aircraft are established which restrict aircraft from flying below 500 feet adjacent to the river over residential and commercial areas of the City.
- In the interest of working towards ongoing protection of the livability of the City's neighbourhoods, and ensuring that current established procedures regarding float plane traffic are adhered to and maintained, staff recommend:

That Council request that YVRAA, Transport Canada and NAV Canada and other relevant agencies conduct regular and ongoing monitoring and safety reviews of the float aircraft operations and landing patterns in the middle arm of the Fraser River and over adjacent residential and commercial areas of the City to ensure compliance with current operational procedures.

- The results of these safety reviews should be shared with the City and area residents.



Rob Innes
Planner

RI:cas

Mr. Larry Berg
 CEO, Vancouver International Airport Authority
 P.O. Box 23750
 Airport Postal Outlet
 Richmond, B.C. V7B 1Y7

3300 River Road
 Richmond, B.C.
 V7C 5N2

January 9, 2001.

Dear Mr. Berg:

You may recall that as Senior Vice President, Operations, you dealt with my letter of June 21, 1997 and referred my concerns to the Regional Director, Civil Aviation, Pacific Region, who responded in his letter of March 2, 1998.

My concern about the issue of 'safety' for the growing residential community south of the Middle Arm of the Fraser River and west of No. 2 Road, to quote in part, was as follows:

"It would be timely to now establish some tighter disciplines for the routing of float plane aircraft to and from the Middle Arm of the Fraser River:

- a) coming from the west, to land into the west.
- b) taking off to the east, but then circling to the west.
- c) taking off into the west.

In my view, there is a significant and needless risk potential, in aircraft flying as low as 200 feet above densely populated areas of Richmond, when tracking over the river/dyke eliminates the risk to safety".

In my previous correspondence, I cited a number of instances when float planes had been in difficulty or crashed in the coastal region.

The Safety Review conducted by Transport Canada appeared to be satisfied that the issue of 'safety', would be adequately dealt with, "by reminding the major float plane operators of the 500 foot requirement for operations adjacent to the river, over commercial and residential areas"

It is now almost three years since this subject was reviewed and while close monitoring was to be undertaken, it is clear that whatever monitoring has been carried out, it has been totally ineffective. The prescribed minimum has not been respected to a significant degree by aircraft outbound from or inbound to the Middle Arm.

In my view, focusing only on an altitude minimum, as the solution to dealing with the 'risk potential' in the community, did nothing to bring about improvement. It appears that the manner in which aircraft 'track' into and out of the river, was not a part of the review conducted by Transport Canada. The risk to safety on the ground from aircraft flying overhead from 200 feet and up remains a serious concern for me and is shared by my neighbours. The increasing movement of aircraft into and out of the river as presently practiced, along with the lack of respect for the 'minimum' height, brings the 'noise nuisance' factor very much into the picture.

In the past three years, the following growth in the area south of the river and west of No. 2 Road has taken place:

- a) The condominium structures have now filled in the area up to Lynas Lane.
- b) Townhome and single family construction continues west of No. 1 Road, adjacent to Westminster Hwy.
- c) The Terra Nova Village Shopping Centre in the northwest corner of No. 1 Road and Westminster Hwy, has been in operation for over a year.
- d) The SPUL 'U' KWUKS Elementary School, located on Blanshard, west of the Shopping Centre, opened late last fall.

I believe that there is a clear and simple solution, which would resolve both the 'safety' issue and the 'noise nuisance' concerns expressed in the foregoing.

The following observations are offered to further support my view, that more effective action is called for.

1. During the past summer when crossing the No. 2 Road Bridge, southbound, I observed a float plane(not Harbour Air) coming off the River eastbound, peeling off on a climbing turn to the right, cutting between Lighthouse Place(first condo west of No. 2 Rd) and Waterside, the next condo and clearing the top by no more than 100 feet.
This action was totally irresponsible. Unfortunately I could not identify the ownership. Granted that this was an isolated incident, but it did occur.
2. I have no difficulty in being able to make out the registration letters of some of the aircraft flying low over our property and conversations are halted because of the noise.
3. At times, from the back of our place at ground level, aircraft can be heard to the south but are not visible above the houses immediately behind us and are seen only when they pass across the gap between houses. This can occur with both inbound and outbound aircraft and suggests to me that they are pretty low.
4. On October 13, 2000, at 1759, while at the corner of No. 1 Road and Westminster Hwy., on looking south, I observed a Harbour Air Beaver approaching from the SW at not more than 300 feet. As it came close to No. 1 Road, a Twin Otter flew overhead, southbound, paralleling No. 1 Road just to the west. The Otter crossed over top of and slightly behind the Beaver, by no more than a couple of hundred feet. The next day I called the Tower, explained my concern about how close the aircraft came and wondered if an 'incident report' would be called for. The individual was of the opinion that it would not be necessary. I could not identify ownership of the Otter because I was looking at it directly from the rear.
5. Late last fall, I observed a remote controlled airplane being operated from the playing field area west of the SPUL 'U' KWUKS school, as high as I have seen aircraft flying across that area.

The 'solution' which I feel deserves serious consideration, would be as follows:

- . Aircraft inbound or outbound from the Middle Arm in a span from the SW to the NW, would be required to track on a route over the north side of the river.
- . An eastbound takeoff would make a left turn to the west.
- . An aircraft coming in from the west would track over the north side of the river for a right turn decent to a westbound landing

A rough check on distances would indicate that there is a slightly greater distance from the middle of the river to the Heli pad, than there is to Westminster Hwy., where almost all of the aircraft tracking has been taking place.

The two attachments provide a picture of the 'Present Practice (A)' and the 'Proposed Procedure (B)'.
.

It is clearly time to 'hite the bullet' and take decisive action to effectively deal with the need to improve 'safety' in the residential community and at the same time make a responsible commitment to noise abatement. In my view there are compelling reasons to use the 'air-side' of the Middle Arm as the logical means to achieve both objectives. The best interests of those on the ground, need now to be acknowledged and respected

You may question my ability to judge heights, but I have tried to be as fair as possible, based upon a couple of benchmarks available - (The Control Tower - approx 200'; Lighthouse Place - approx 100').

By copy of this letter to the Regional Director Civil Aviation Pacific Region, I respectfully request that the 'Proposed Procedure (B)' as in the attached, be reviewed as a basis for action.

Sincerely,



David M. Fairweather

cc: David Nowzek, Regional Director Civil Aviation Pacific Region, Transport Canada.
→ Rob Innes, Plamer, Policy Planning, Urban Development, City of Richmond.

Mr. Larry Berg
 CEO, Vancouver International Airport Authority
 P.O. Box 23750
 Airport Postal Outlet
 Richmond, B.C. V7B 1Y7

3300 River Road
 Richmond, B.C.
 V7C 5N2

January 21, 2001.

Dear Mr. Berg:

This is further to my letter of January 9th, dealing with float aircraft operations on the Middle Arm of the Fraser River.

As I will be away for a period of time, I thought that I should record an alternative - "Proposed Procedure C", which might be more acceptable to all concerned. This may well be under consideration in the review requested of the Regional Director Civil Aviation. For float traffic in and out of the west, this proposal would eliminate the need to legislate and regulate a 500 foot minimum height.

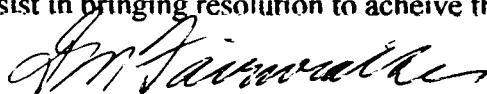
If aircraft are required to track over the Middle Arm of the river, for takeoffs into the east and landings into the west, it would also, in the case of takeoffs into the west and landings into the east, eliminate those occasions when aircraft cut over the Terra Nova residential community. A flagrant example of this was clearly demonstrated to me on Jan. 9th. While looking out over the river to the north at about 1535, a Beaver aircraft dropped down off the foot of Barnard Dr., just to the right of our house (we're the 3rd from Barnard) and over the dyke trail at no more than 50 feet, swinging to the right for an eastbound landing. This was hush flying style over a residential community and was totally irresponsible. The aircraft was so low that I could not see the registration letters. It however, had a dark upper fuselage, with silver below and is seen regularly on the river.

The 'Proposed Procedure C', was clearly observed in practice on January 19th. A Beaver and later a Cessna took off into the east; diverted slightly to the left and circled around to the right and out over the Middle Arm of the river to the west, under 300 feet. Full credit to the pilots involved. This evidence of responsible piloting, clearly meets the objectives of improving safety in the residential community and committing to noise abatement.

In case you were wondering, here's a brief 'backgrounder' on myself. I learned to fly in the RCAF 1943-45; after a B. Comm '49 at UBC, my working life was in the Operations Dept of the Western Region and Headquarters of TCA and Air Canada, in personnel and administrative roles; retiring in 1983 as Regional Personnel & Administration Director, Western Region; we built our house in Terra Nova in 1992.

I hope that this may assist in bringing resolution to achieve the objectives expressed.
 Sincerely,

David M. Fairweather

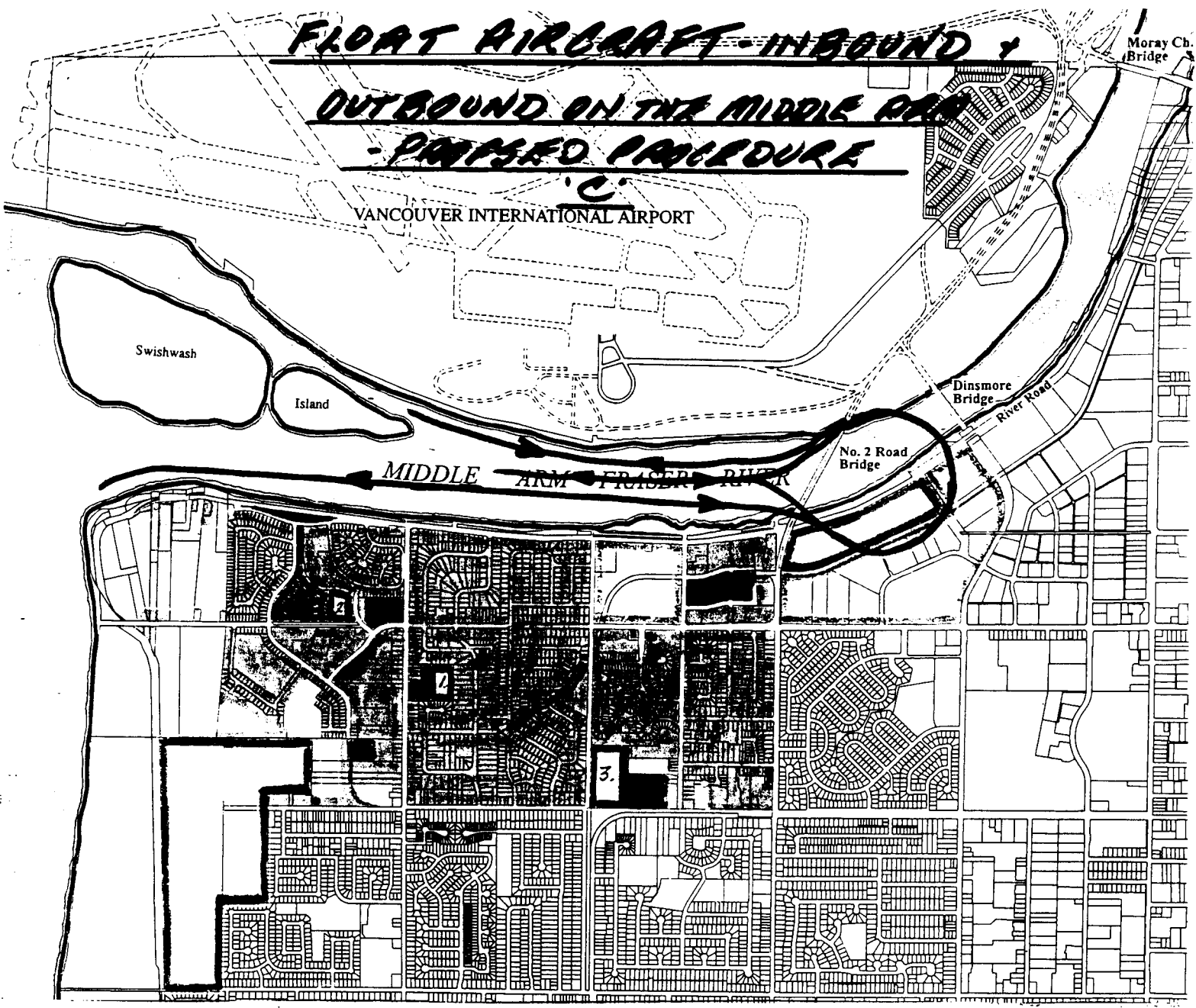










cc: David Nowzek, Regional Director Civil Aviation Pacific Region, Transport Canada.

David McLellan, General Manager, Urban Development, City of Richmond.

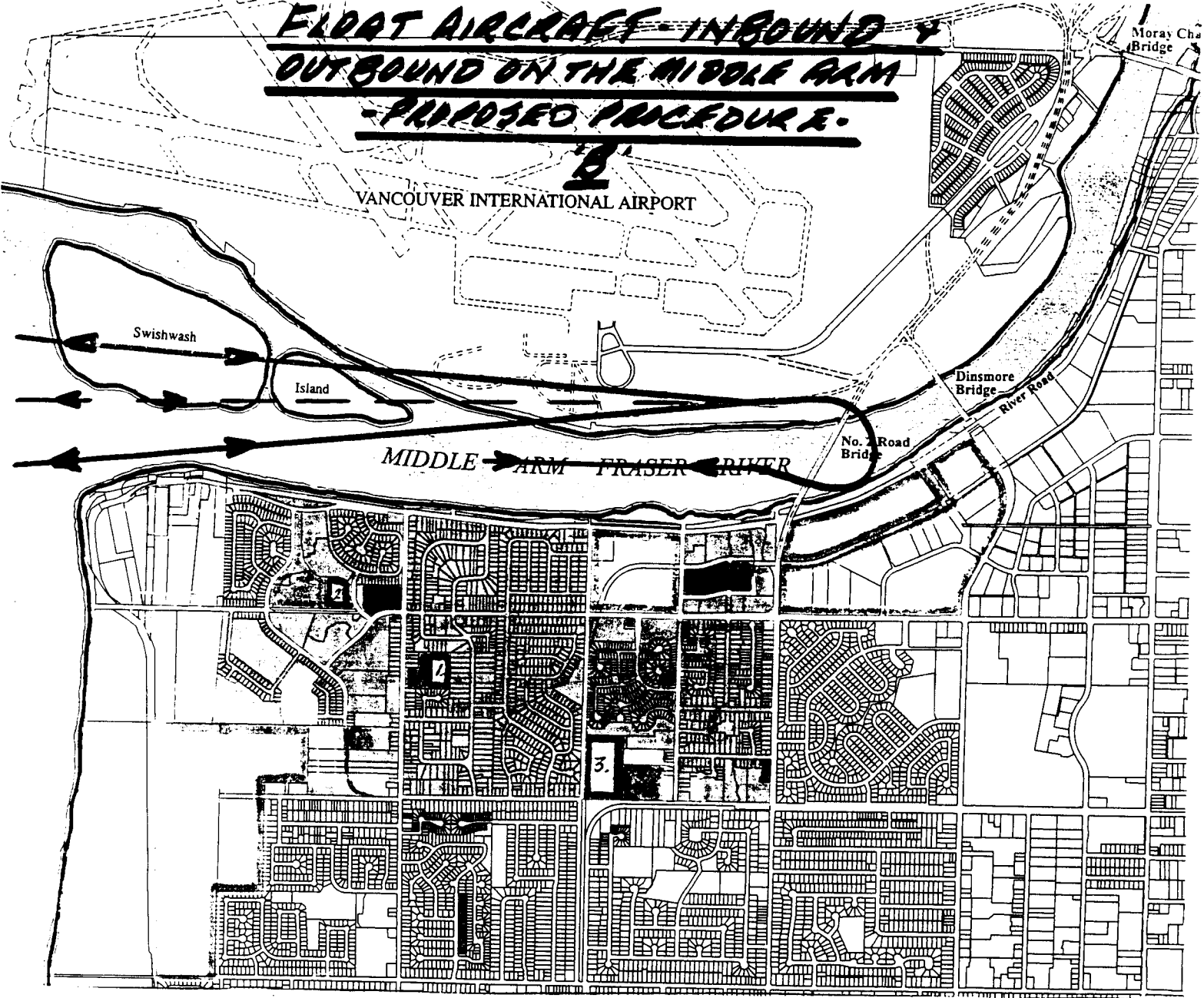
Rob Innes, Planner, Policy Planning, Urban Development, City of Richmond.

**FLOAT AIRCRAFT - INBOUND +
OUTBOUND ON THE MIDDLE ARM
- PROPOSED PROCEDURE**



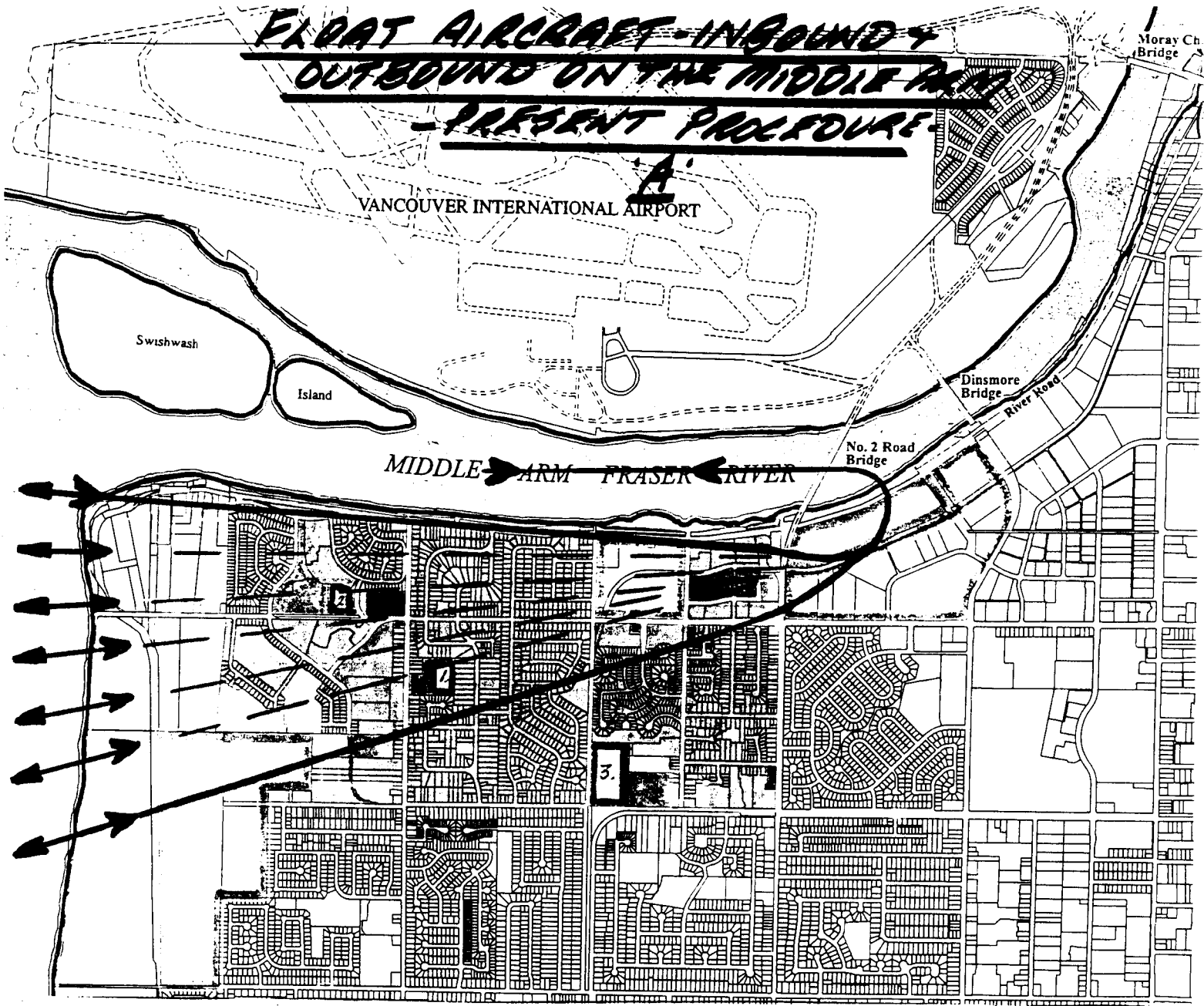
-  - RESIDENTIAL - DEVELOPED.
-  - COMMERCIAL / CITY WORKS YARD / SCHOOL BOARD.
-  - PARK / PLAYING FIELDS / GOLF COURSE
-  - OPEN LAND / COMMUNITY GARDEN / R.V. SITE
-  - 1. THOMPSON ELEMENTARY
-  - 2. SPUL'U KNUKS ELEMENTARY
-  - 3. BURNETT SECONDARY
-  - TERRA NOVA VILLAGE SHOPPING CENTRE

FLOAT AIRCRAFT - INBOUND & OUTBOUND ON THE MIDDLE ARM
- PROPOSED PROCEDURE -



- RESIDENTIAL - DEVELOPED.
- - COMMERCIAL / CITY WORKS YARD / SCHOOL BOARD.
- - PARK / PLAYING FIELDS / GOLF COURSE
- - OPEN LAND / COMMUNITY GARDEN / R.V. SITE
- - 1. THOMPSON ELEMENTARY
- - 2. SPUR 'U' KNIFE ELEMENTARY
- - 3. BURNETT SECONDARY
- - TERRA NOVA VILLAGE SHOPPING CENTRE

FLOAT AIRCRAFT - INBOUND & OUTBOUND ON THE MIDDLE ARM - PRESENT PROCEDURE



- RESIDENTIAL - DEVELOPED.
- COMMERCIAL / CITY WORKS YARD / SCHOOL BOARD.
- PARK / PLAYING FIELDS / GOLF COURSE
- OPEN LAND / COMMUNITY GARDEN / R.V. SITE
- 1. THOMPSON ELEMENTARY
- 2. SPUR 'U' KNUGS ELEMENTARY
- 3. BURNETT SECONDARY
- TERRA NOVA VILLAGE SHOPPING CENTRE

Mr. David McLellan
 General Manager, Urban Development
 City of Richmond
 6911 No. 3 Road
 City of Richmond, B.C.
 V6Y 2C1

3300 River Road
 Richmond, B.C.
 V7C 5N2
 (Tel. - 244-3788)

January 15, 2001

Dear Mr. McLellan:

In my phone call to Rob Innes on Friday Jan 11th to offer background or elaboration on my letter of Jan 9th to Mr. Berg and Mr. Nowzek, he mentioned that a copy had been forwarded to you.

I thought that it might be well to convey to you, a copy of my initial letter of June 21, 1997 and the subsequent letters dealing with the issue of float aircraft operation on the Middle Arm of the Fraser River. These are attached.

I mentioned to Rob Innes that in the interests of brevity, the submission did not touch upon item c) taking off into the west. There are occasions when aircraft taking off into the west, swing over the Terra Nova residential area, rather than tracking out over the river. They are definitely below 500 feet. The proposal would solve this as well.

The reverse of this, which occurs less frequently, was clearly demonstrated to me on Jan. 9, 2001. While looking out over the river to the north at about 1535, a Beaver aircraft dropped down off the foot of Barnard Dr., just to the right of our house (we're the 3rd from Barnard) and over the dyke trail at no more than 50 feet, swinging to the right for an eastbound landing. This was bush flying style over a residential community and is totally irresponsible. The aircraft was so low that I could not see the registration letters.

I would like to suggest that if you see some merit in the proposal made in my submission it would be opportune for the City of Richmond to go on record with Mr. Berg and Mr. Nowzek.

In case you were wondering, here's a brief "background" on myself. I learned to fly in the RCAF 1943-45; after a B.Comm '49 at UBC, my working life was in the Operations Dept of the Western Region and Headquarters of TCA and Air Canada in personnel and administrative roles; retired in 1983 as Regional Personnel & Administration Director, Western Region; built our house in Terra Nova in 1992.

Sincerely,



David M. Fairweather

→ cc: Mr Rob Innes, Planner, Policy Planning, Urban Development, City of Richmond

Mr. David Emerson
President & CEO
Vancouver Int'l Airport Authority
P.O. Box 23750
A.P.O. - Richmond, B.C.

3300 River Road
Richmond, B.C.
V7C 5N2

June 21, 1997.

Dear Sir:

Your Public Notice in the 'The Review regarding 'Runway Maintenance & Aircraft Noise', states that - 'As a part of its ongoing commitment to the highest possible safety standards, the Vancouver International Airport will . . .' I believe that concerns for safety on and about the airport, are a very important aspect of management responsibility. There is an area which does require immediate attention.

In recent years, the increasing frequency of float plane take-offs and landings on the Middle Arm, combined with the significant growth in residential housing in both the Terra Nova and Dover Crossing areas, could soon become a flash-point of public concern.

Some residents may be registering complaints because of the noise from aircraft flying 200 - 400 feet above their homes on a pretty regular basis, particularly in the period, April to October.

My concern is primarily with 'safety' and I feel that those in authority are overdue in implementing procedures which would apply to float plane traffic, with public safety in mind.

Last August, a Harbour Air Ltd. Cessna float plane heading for the Middle Arm was forced to make an emergency landing on the grass of the International Airport. Earlier in the same month a float plane crashed at Sandspit, about which, Tom Storey, Regional Manager of the Transportation Safety Board in Vancouver was quoted as saying - "It's very difficult to pinpoint what causes a number of float plane accidents on the coast, but it's an ongoing concern". More recently a Beaver went down in the Capilano Watershed area and an aircraft crashed close to a residential area in Powell River.

It would be timely to now establish some tighter disciplines for the routing of float plane aircraft to and from the Middle Arm of the Fraser River:

- a) coming from the west, to land into the west.
- b) taking off to the east, but then circling to the west.
- c) taking off into the west.

In my view there is a significant and needless risk potential, in aircraft flying as low as 200 feet above densely populated areas of Richmond, when tracking over the river/dyke, eliminates the risk to safety.



Vancouver International Airport Authority
Administration de l'aéroport international de Vancouver

P.O. Box 23750
Airport Postal Outlet
Richmond, B.C. Canada
V7B 1Y7

July 9, 1997

Mr. David M. Fairweather
3300 River Road
Richmond, B.C.
V7C 5N2

Dear Mr. Fairweather:

Thank you for your recent letter to David Emerson expressing your concerns with floatplane safety. David has asked me to investigate this issue and respond on his behalf.

From your letter it is quite evident that you have a very good knowledge of aviation and that you understand the characteristics of floatplane operations. While we are proud of the overall excellent safety record at YVR, we are also very aware that protection of that record requires vigilance and responsible action by all concerned.

Accordingly, we have been in discussion with Transport Canada over the points raised in your letter. Given the changes in traffic procedures and the increasing air traffic at YVR, Transport Canada agrees that it would be timely and appropriate to undertake a safety review of floatplane operations.

I understand that the review will include discussions with NAV CANADA, (the provider of air traffic control services) as well as users and aviation safety experts. The scope of the review will extend to all operating procedures relating to YVR floatplane activity.

I wish to thank you for bringing this matter to our attention and taking the time to articulate your concerns in such a clear and positive style. I am confident that the results of the review will contribute to improved and safer operations at YVR.

Yours truly,
Vancouver International Airport Authority

A handwritten signature in black ink, appearing to read 'Larry Berg', is written over the typed name.

Larry Berg
Senior Vice President
Operations

cc: Mark Duncan, Regional Director General, Transport Canada
Craig Richmond, YVRAA
Mike Matthews, YVRAA



Vancouver International Airport Authority
Administration de l'aéroport international de Vancouver

P.O. Box 23750
Airport Postal Outlet
Richmond, B.C. Canada
V7B 1Y7

March 17, 1998

David M. Fairweather
3300 River Road
Richmond, B.C.
V7C 5N2

Dear Mr. Fairweather:

In response to your concerns expressed mid 1997, I requested Transport Canada to conduct a safety review of float plane operations.

That review has been completed and the attached letter from Mr. David Nowzek, Regional Director Civil Aviation, summarizes the findings and action taken to correct occurrences identified.

I would appreciate hearing your assessment of whether flight practices are in compliance with the 500 foot requirement and wish to thank you again for bringing this to our attention.

Yours truly,

A handwritten signature in black ink, appearing to read 'Larry Berg'.

Larry Berg
Senior Vice President
Operations

cc: *David Nowzek, Regional Director Civil Aviation Pacific Region, Transport Canada*
Craig Richmond, Manager Airside Operations, YVRAA
Mike Matthews, YVRAA



Vancouver International Airport Authority
Administration de l'aéroport International de Vancouver
P.O. Box 23750
Airport Postal Outlet
Richmond, B.C. Canada
V7S 1Y7

21 February 2001

David M. Fairweather
3300 River Road
Richmond, B.C. V7C 5N2

Dear Mr. Fairweather,

I am writing to reply to your letters of January 9 and 29 2001 in which you raise your concerns with the float aircraft operations on the Middle Arm of the Fraser River. I apologize for the late response, but I have had my Airside Safety Officer investigating the matter, and it has taken some time.

The Canada Water Aerodrome Supplement contains the note "*ARR/DEP Downwind flight altitude not below 500' ASL over populated area to the south. Westbound departures keep clear of South shore noise sensitive area. Departures restricted until 0630 hr local. At low tide use river slightly North of centre of river.*" However, as you have reported, not all arrivals and departures comply with this instruction. I share your frustration and concern, and if you witness non-compliance of these rules, I urge you to contact Transport Canada immediately.

A review of your suggestion for changes in the direction of arrivals and departures should involve NavCanada (the provider of Air Traffic Services) and Transport Canada, (the regulatory authority) and the air carriers themselves. The Airport Authority actually has little direct control over flightpaths, but in order to ensure that your concerns are addressed I am willing to facilitate a meeting with the parties involved. The purpose of the meeting would be to consider your Proposed Procedures "B" and "C" and any other measures that will contribute to the safety of the float operations.

If you wish to attend the meeting that will review your proposals, please contact me. In any event, I will advise you of the outcome of the meeting and the actions that the parties plan to take on the matter.

Yours truly,

A handwritten signature in black ink, appearing to read 'Craig Richmond'.

Craig Richmond
Vice President, Airport Operations

We have been in our home on River Road for five years and with an aviation background I have observed the practices followed by pilots flying in and out of the Middle Arm of the Fraser.* In many cases pilots have made their approaches and exits in a very responsible manner. The majority however, are being guided by the 'short route' mentality, with little regard for noise or public safety. †

Past contacts have advised that no particular procedures exist for application to float plane traffic into or out of the river.

I would appreciate the opportunity to discuss my concerns about safety, with an appropriate representative, with a view to the introduction of procedures which would deal with this issue. Let's not wait until a serious accident occurs in a residential area, before action is taken.

Sincerely,

David M. Fairweather (244-3788)

cc:Regional Director General - Aviation
800 Burrard St.
Vancouver, B.C.
V6Z 2J8



Transport
Canada

Transports
Canada

Pacific
Region

Région
du Pacifique

Suite 620
800 Burrard Street
Vancouver, B.C.
V6Z 2J8

800, rue Burrard
Bureau 620
Vancouver, C.-B.
V6Z 2J8

Your file *Votre référence*

Our file *Notre référence*

March 2, 1998.

TAB5002-13-98

Mr. Larry Berg
Sr V.P. Operations
YVRAA P.O. Box 23750
Airport Postal Outlet
Richmond, B.C.
V7B 1Y2

Dear Sir:

RE: MIDDLE ARM FLOAT PLANE OPERATIONS

In response to Mr. David Fairweather's letter regarding the safety of float plane operations on the Middle Arm of the Fraser River, I wish to bring you up to date on our activities.

Last Fall, a team was convened to conduct a Safety Review of float plane operations on the Middle Arm. Through analysis of the system and an ongoing surveillance, the team identified two observations focusing on eastbound take-offs and westbound landings. While the risk is somewhat higher during the eastbound take-off, the probability of an occurrence is low. This conclusion is based on the team's collective experience gained over considerable time.

The Regional Manager, System Safety, has also met with the major float plane operators to discuss these safety issues and to remind them of the 500 foot requirement for operations adjacent to the river over the commercial and residential areas.

Notwithstanding the above, the ongoing land development and its impact on Middle Arm operations must be closely monitored. Accordingly, I have directed System Safety to conduct frequent and on-going monitoring activities to ensure float plane operations are conducted in accordance with published standards. In late August or early September 1998, another Safety Review will be conducted as part of this on-going surveillance.

If you wish to discuss this further, I can be reached at 666-5851.

Yours truly,

for David J. Nowzek
Regional Director Civil Aviation
Pacific Region

