

LETTER OF AGREEMENT BETWEEN:

VANCOUVER AREA CONTROL CENTRE & SEATTLE ARTCC

Effective: 29-MAY-2000

Amended: 21-JUL-2008

I. Purpose

This Letter of Agreement establishes standard procedures for coordinating air traffic between Seattle ARTCC (ZSE) and Vancouver ACC (ZVR).

II. Responsibilities

1. The minimum radar separation shall be 5 nautical miles.
2. Unless otherwise coordinated, all radar hand-offs shall be accomplished prior to the common boundary.
3. Vancouver ACC shall provide terminal area control service (Approach) for the Bellingham Airport (KBLI), Seattle ARTCC shall provide local control (Tower and lower). If no Seattle ARTCC controller is staffing Bellingham Tower, the Vancouver ACC controller online will provide all services for the airport.

III. Description of Airspace

Seattle ARTCC shall delegate U.S. airspace around KBLI to Vancouver ACC on a continuous basis to provide terminal services for KBLI as depicted in **Appendix 1a**.

IV. Procedures

Seattle ARTCC and Vancouver ACC both shall:

- Ensure all data on the flight strip is current and accurate, i.e. altitude, route of flight, transponder code, unless coordinated with adjacent controller otherwise.
- All IFR aircraft will be assigned a discreet beacon code.
- VFR aircraft who have requested radar advisories (flight following) from a ZSE controller, and are transiting northbound into a ZVR controllers airspace, must be handed off, as if now an IFR aircraft, even if they request to terminate radar advisories. The only exception to this will be if the aircraft is maintaining VFR below 2,500 feet MSL. In that case, it is not necessary to hand off to the ZVR controller.
- Seattle ARTCC/Vancouver ACC shall coordinate, prior to departure, all aircraft departing from points within 15 minutes flying time of the common

boundary. This coordination need not be accomplished provided a radar hand-off will be completed prior to the common boundary.

Seattle / Vancouver Procedures

- ❑ Aircraft handed off between facilities are released for turns, and altitude changes.
- ❑ Seattle and Vancouver controller's will advise each other of any information not reflected on the flight strip.
- ❑ Vancouver frequencies:
 - Vancouver Center: 133.70
 - Vancouver East Center: 133.70
 - Vancouver West Center: 125.90
 - Vancouver Approach: 128.60
- ❑ Seattle frequencies:
 - Seattle Center: 124.20
 - Seattle North Center: 120.30
 - Seattle Northwest Center (A): 126.60
 - Seattle Northeast Center (C): 128.45
 - Whidbey Approach 118.20

ZVR shall position aircraft according to the following:

- ❑ All traffic landing at KSEA or KBFI, from a point west of KBLI...over the YYJ via the JABWN1 arrival, in compliance with the crossing restriction noted in **Appendix 2a**.
- ❑ All traffic landing at KSEA or KBFI, from CYVR...over YVR via the JAWBN1 arrival, in compliance with the crossing restriction noted in **Appendix 2a**.
- ❑ All traffic landing at KSEA or KBFI, from a point east of KBLI...direct JAKSN GLASR7 arrival, in compliance with the crossing restriction noted in **Appendix 2a**.
- ❑ All traffic landing at KPDX...routed through SEA HELSN4 arrival.
- ❑ All other traffic landing within Seattle ARTCC...on flight plan route.
- ❑ If an aircraft cannot accept a STAR or comply with the specifications in the LOA, the ZVR controller will advise the ZSE controller before handing off.
- ❑ Keep ZSE advised of the runway in use at CYVR.

ZSE shall position aircraft according to the following:

- ❑ All traffic landing at CYVR, from a point west of KBLI...on one of the following arrivals, and issue the appropriate crossing restriction for descent:

- TOU to join CASDY7 arrival (CYVR landing 26L & 26R), in compliance with the crossing restriction noted in **Appendix 3a**.
 - TOU to join FOCHE4 arrival (CYVR landing 8L & 8R), in compliance with the crossing restriction noted in **Appendix 3a**.
 - YYJ to join ISLAND1 arrival, in compliance with the crossing restriction noted in **Appendix 3a**.
 - IMPOR or IMEDI to join MEVGO1 arrival, in compliance with the crossing restriction noted in **Appendix 3a**.
 - WAPTO to join SHARK7 arrival (CYVR landing runway 8L & 8R) , in compliance with the crossing restriction noted in **Appendix 3a**.
 - HQM to join SHARK7 arrival (CYVR landing 26L & 26R) , in compliance with the crossing restriction noted in **Appendix 3a**.
- All traffic landing at CYVR, from a point east of KBLI...on one of the following arrivals, issue the appropriate crossing restrcion for descent:
 - METOW to join GRIZZ3 arrival (CYVR landing 8L & 8R) , in compliance with the crossing restriction noted in **Appendix 3b**.
 - PAE to join GRIZZ3 arrival (CYVR landing 26L & 26R) , in compliance with the crossing restriction noted in **Appendix 3b**.
 - PAE to join PAE1 arrival, in compliance with the crossing restriction noted in **Appendix 3b**.
 - All other traffic landing within Vancouver ACC...on flight plan route.
 - Seattle controllers should clear any arrival bound for CYYJ as low as 6,000 ft.
 - If an aircraft cannot accept a STAR or comply with the specifications in the LOA, the ZSE controller will advise the ZVR controller before handing off.
 - Keep ZVR advised of the runway in use at KSEA.

Handoffs (Center to Center):

- Center to Center handoffs should be coordinated as all other handoffs.
- In cases where traffic loads in either sector exceed usual levels, the controllers may discuss the possibility of “estimates” for handoffs. Estimates are estiamted times to cross the border between either sector, and should be communicated to the opposite controller prior to a handoff. This allows the controller receiving the aircraft to have a “warning” before the aircraft is handed off. These should usually be given 30 minutes in advance of the aircraft crossing the border, if possible. Estimates should only be used when both controllers agree to use them. They are not required under any circumstances.
- Aircraft being cleared direct into a waypoint in the adjacent airspace should first have the approval of the controller whose airspace the waypoint is in. For example, Seattle Center must coordiante with Vancouver Center before clearing an aircraft direct to a waypoint Vancouver’s airspace.

Handoffs (Approach to Center):

- ❑ Vancouver and Victoria Terminal may directly handoff aircraft departing their airspace to Seattle Center, upon reaching the border.
- ❑ Departures from the Vancouver/Victoria area may only be given, at most, a climb to 16,000. Any additional climb must be coordinated with Seattle Center.
- ❑ Seattle Center may directly handoff aircraft to Vancouver and Victoria Terminal.
- ❑ Vancouver Center may directly handoff aircraft to Whidbey Approach.

Handoffs (Approach to Approach):

- ❑ Seattle Approach and Vancouver Terminal are not permitted to handoff directly.
- ❑ Whidbey Approach and Vancouver or Victoria Terminal are permitted to engage in handoffs, if required for transitioning or arriving aircraft (note: Whidbey Approach control only extends up to 9000, see diagram in **Appendix 1a**).

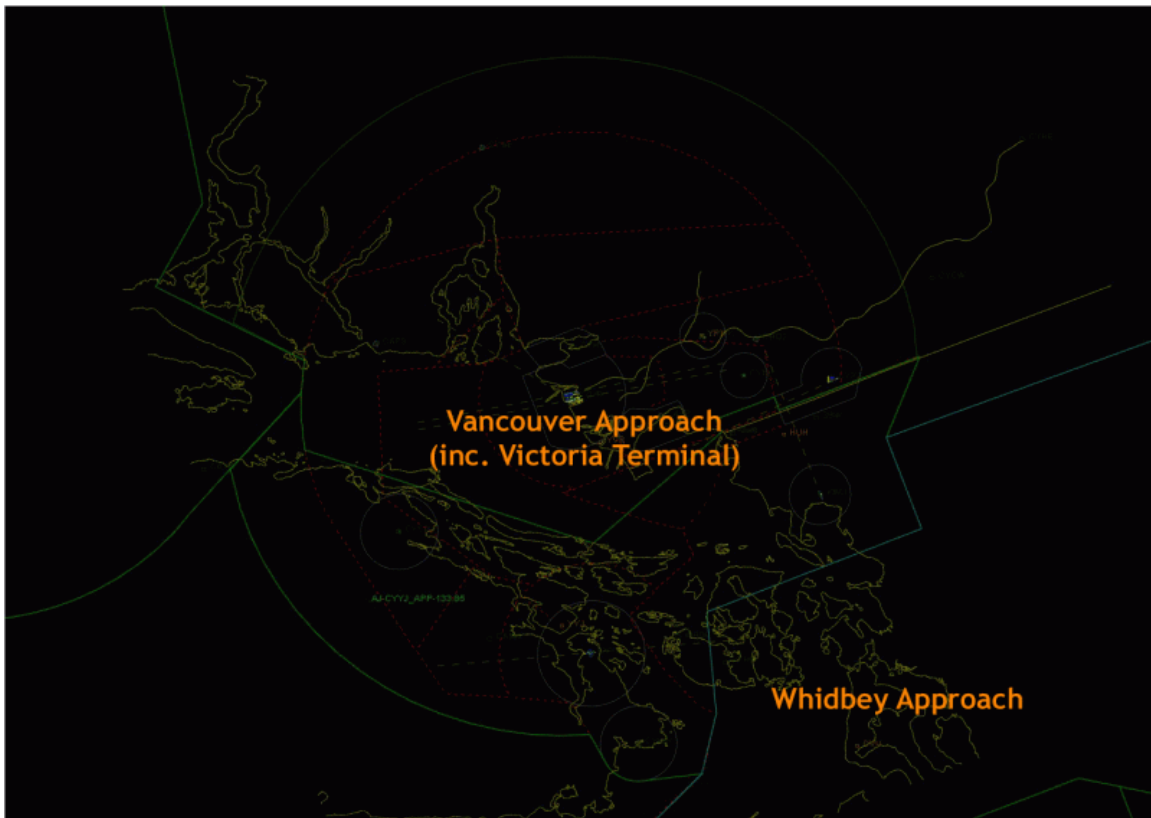
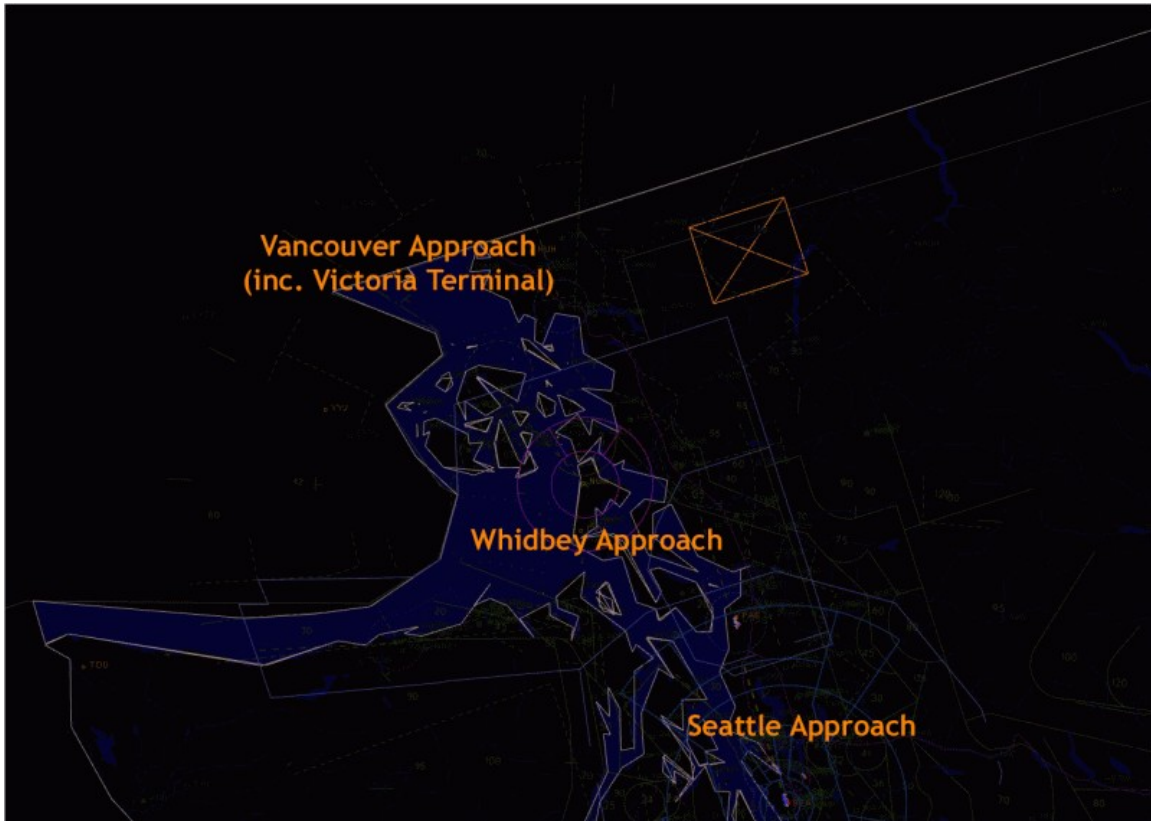
V. Signatures

S/S Nick Bartolotta
Air Traffic Manager
Seattle ARTCC

S/S Brandon Van Brunt
Acting Chief Instructor
Vancouver ACC

VI. Appendix

1a – Airspace depiction



2a – ZVR to ZSE crossing restrictions:

Blue = Seattle-bound turbojets

Red = Boeing Field-bound turbojets

Green = All turboprops

Landing south (16's at KSEA, 13's at KBFI)

Arrival	Waypoint	Crossing altitude	Crossing speed
JAWBN1	JAWBN	12,000 ft	250 knots
		11,000 ft	250 knots
		10,000 ft	250 knots
GLASR7	JAKSN	12,000 ft	250 knots
		11,000 ft	250 knots
		10,000 ft	250 knots

Landing north (34's at KSEA, 31's at KBFI)

Arrival	Waypoint	Crossing altitude	Crossing speed
JAWBN1	JAWBN	16,000 ft	280 knots
		11,000 ft	250 knots
		10,000 ft	250 knots
GLASR7	JAKSN	16,000 ft	280 knots
		11,000 ft	250 knots
		10,000 ft	250 knots

3a – ZSE to ZVR crossing restrictions:

Blue = Vancouver-bound turbojets

Green = Vancouver-bound turboprops

Black = Both turbojet/turboprop

Arrival	Waypoint	Crossing altitude	Crossing speed
PAE1	EGRET	12,000 ft	250 knots
		10,000 ft	None
CASDY7	EMLOX	20,000 ft	None
FOCHE4	VIGNA	17,000 ft	None
GRIZZ3	EGRET	12,000 ft	250 knots
		10,000 ft	None
SHARK7 (26's)	URMIX	12,000 ft	250 knots
		10,000 ft	None
SHARK7 (08's)	FOCHE	15,000 ft	None
ISLAND1	YYJ	8,000 ft	None
MEVGO1	YYJ	8,000 ft	None
GOTOK1 (26's)	GOTOK	10,000 ft	None
GOTOK1 (08's)	GOTOK	8,000 ft	None