

RADIO FIX AND HOLDING DATA RECORD

NAME: ECEPO **STATE:** WA **COUNTRY:** US **ICAO REGION CODE:** K1
LATITUDE/LONGITUDE: 475300.11N/1222938.64W **TYPE:** DME

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** NO CHANGE

FIX MAKE-UP FACILITIES:

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM FAC NM	FAC FEET	MRA	MAA
1	PAINE	PAE	VOR/DME	L	236.00	256.00	9.00	9.00		2000	17500

HOLDING: **HOLDING TYPE OF ACTION:** ESTABLISH

PATTERNS:

PAT	DIR	IDENT	TYPE	RAD/CRS/BRG	CRS INBOUND	TURN (L OR R)	LEG LENGTH TIME	DME	HOLDING ALTITUDES MIN	MAX	TEMPLATES MIN	MAX
1	NE	PAE	VOR/DME	236.00	236.00	R	1		2000	6000	4	5
2	NE		WP	056.00	236.00	R		4	2000	6000	4	6

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	CONTROL_TOWER (53-020252)	475432.61N/1221644.64W	777	1A
1	310	ANTENNA (53-034715)	475144.15N/1221708.59W	817	1A
2	200	CONTROL_TOWER (53-020252)	475432.61N/1221644.64W	777	1A
2	310	ANTENNA (53-034715)	475144.15N/1221708.59W	817	1A

HOLDING RESTRICTIONS:

HOLDING LIMITED TO ESTABLISHED PATTERNS.

PROCEDURES REQUIRING CLIMB-IN-HOLD:

PAT	PROCEDURE TITLE	AIRPORT IDENT	CITY	STATE
1	ILS Z OR LOC Z RWY 16R	KPAE	EVERETT	WA (US)
1	ILS Z RWY 16R (SA CAT II)	KPAE	EVERETT	WA (US)
2	RNAV (GPS) Z RWY 16R	KPAE	EVERETT	WA (US)

REMARKS:

PRECIPITOUS TERRAIN EVALUATION COMPLETED.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	ILS Y OR LOC Y RWY 16R	1	1	KPAE	EVERETT	WA (US)
IAP	ILS Z OR LOC Z RWY 16R	1	1	KPAE	EVERETT	WA (US)
IAP	ILS Z RWY 16R (SA CAT II)	1	1	KPAE	EVERETT	WA (US)
IAP	RNAV (GPS) Y RWY 16R		2	KPAE	EVERETT	WA (US)
IAP	RNAV (GPS) Z RWY 16R		2	KPAE	EVERETT	WA (US)
IAP	VOR-A	1	1	KPAE	EVERETT	WA (US)

REQUIRED CHARTING: IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 1

DATE OF REVISION: 12/07/2017

REASON FOR REVISION:

1. ESTABLISHED HOLDING PAT 1 AND 2.
2. ADDED ALL ASSOCIATED HOLDING DATA FOR PAT 1 AND PAT 2.
3. ADDED DIST FROM FAC TO FAC 1.
4. AMENDED FAC 1 MRA FROM 3000 TO 2000.
5. DELETED VOR/DME RWY 16R AT KPAE FROM FIX USE.
6. ADDED VOR-A, ILS Y OR LOC Y RWY 16R, ILS Z OR LOC Z RWY 16R, RNAV (GPS) Y RWY 16R, AND RNAV (GPS) Z RWY 16R AT KPAE TO FIX USE.

DEVELOPED BY: **DATE:** 07/28/2017 **OFFICE:** AJV-5422 **NAME:** PETER GUIMOND

APPROVED BY: **DATE:** **OFFICE:** AJV-5420 **NAME:** JULIE MORGAN

SIGNATURE:

DISTRIBUTION: NFDC
 FPO: WST
 ARTCC: ZSE
 ATC FACILITY: SEA APP CON
 OTHER:

RADIO FIX AND HOLDING DATA RECORD

NAME: PAINE VOR/DME

STATE: WA

COUNTRY: US

ICAO REGION CODE: K1

LATITUDE/LONGITUDE: 475511.40N/1221640.08W

TYPE:

AIRSPACE DOCKET:

FIX TYPE OF ACTION: NO CHANGE

FIX MAKE-UP FACILITIES:

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM FAC NM	MRA FEET	MAA
1	PAINE	PAE	VOR/DME	L						17500

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

PATTERNS:

PAT	DIR	IDENT	TYPE	RAD/CRS/BRG	CRS INBOUND	TURN (L OR R)	LEG TIME	LENGTH DME	HOLDING ALTITUDES MIN	MAX	TEMPLATES MIN	MAX
1	NW	PAE	VOR/DME	329.04	149.04	R	1		2000	10000	4	9

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	ANTENNA (53-034715)	475144.15N/1221708.59W	817	1A
1	310	ANTENNA (53-034715)	475144.15N/1221708.59W	817	1A

HOLDING RESTRICTIONS:

HOLDING LIMITED TO ESTABLISHED PATTERN

PROCEDURES REQUIRING CLIMB-IN-HOLD:

PAT	PROCEDURE TITLE	AIRPORT IDENT	CITY	STATE
1	BELLEVUE	KRNT	RENTON	WA (US)
1	TAKE-OFF MINIMUMS	KPAE	EVERETT	WA (US)

REMARKS:

PRECIPITOUS TERRAIN EVALUATION COMPLETED.
ASSIGNED FACILITY MAG VAR: 20E (1990).

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	ARLINGTON			KAWO	ARLINGTON	WA (US)
DP	PAINE			KPAE	EVERETT	WA (US)
DP	TAKE-OFF MINIMUMS			KPAE	EVERETT	WA (US)
DP	NASWI			KNUW	OAK HARBOR	WA (US)
DP	YELM			KOLM	OLYMPIA	WA (US)
DP	BELLEVUE		1	KRNT	RENTON	WA (US)
DP	CBAIN (RNAV)			KBFI	SEATTLE	WA (US)
DP	KENT			KBFI	SEATTLE	WA (US)
DP	NEEDLE			KBFI	SEATTLE	WA (US)
DP	NRVNA (RNAV)			KBFI	SEATTLE	WA (US)
DP	ATOME (RNAV)			KSEA	SEATTLE	WA (US)
DP	BANGR (RNAV)			KSEA	SEATTLE	WA (US)
DP	HAROB (RNAV)			KSEA	SEATTLE	WA (US)
DP	MOUNTAIN			KSEA	SEATTLE	WA (US)
DP	SEATTLE			KSEA	SEATTLE	WA (US)
DP	SUMMA			KSEA	SEATTLE	WA (US)
EN ROUTE	V23					(US)
EN ROUTE	V287					(US)
IAP	LOC RWY 34			KAWO	ARLINGTON	WA (US)
IAP	NDB RWY 34			KAWO	ARLINGTON	WA (US)
IAP	RNAV (GPS) RWY 34			KAWO	ARLINGTON	WA (US)
IAP	RNAV (GPS) RWY 29			KBVS	BURLINGTON/MOUNT VERNON	WA (US)
IAP	ILS Y OR LOC Y RWY 16R			KPAE	EVERETT	WA (US)
IAP	ILS Z OR LOC Z RWY 16R			KPAE	EVERETT	WA (US)
IAP	ILS Z RWY 16R (SA CAT II)			KPAE	EVERETT	WA (US)
IAP	RNAV (GPS) RWY 34L			KPAE	EVERETT	WA (US)
IAP	RNAV (GPS) Y RWY 16R			KPAE	EVERETT	WA (US)
IAP	RNAV (GPS) Z RWY 16R			KPAE	EVERETT	WA (US)
IAP	VOR-A			KPAE	EVERETT	WA (US)
IAP	RNAV (GPS) Y RWY 16			KRNT	RENTON	WA (US)
IAP	RNAV (GPS) Z RWY 16			KRNT	RENTON	WA (US)
IAP	ILS OR LOC RWY 32L			KBFI	SEATTLE	WA (US)
IAP	RNAV (GPS) Y RWY 14R			KBFI	SEATTLE	WA (US)
IAP	RNAV (RNP) Z RWY 14R			KBFI	SEATTLE	WA (US)
IAP	ILS OR LOC RWY 16C			KSEA	SEATTLE	WA (US)
IAP	ILS OR LOC RWY 16L			KSEA	SEATTLE	WA (US)
IAP	ILS OR LOC RWY 16R			KSEA	SEATTLE	WA (US)
IAP	ILS OR LOC RWY 34C		1	KSEA	SEATTLE	WA (US)
IAP	ILS OR LOC RWY 34L		1	KSEA	SEATTLE	WA (US)
IAP	ILS OR LOC RWY 34R		1	KSEA	SEATTLE	WA (US)
IAP	ILS OR LOC Y RWY 16R			KSEA	SEATTLE	WA (US)
IAP	ILS RWY 16C (CAT II & III)			KSEA	SEATTLE	WA (US)
IAP	ILS RWY 16C (SA CAT I)			KSEA	SEATTLE	WA (US)
IAP	ILS RWY 16L (CAT II & III)			KSEA	SEATTLE	WA (US)

IAP	ILS RWY 16L (SA CAT I)		KSEA	SEATTLE	WA (US)
IAP	ILS RWY 16R (CAT II & III)		KSEA	SEATTLE	WA (US)
IAP	ILS RWY 16R (SA CAT I)		KSEA	SEATTLE	WA (US)
IAP	ILS RWY 34C (SA CAT I & II)	1	KSEA	SEATTLE	WA (US)
IAP	ILS RWY 34L (SA CAT I & II)	1	KSEA	SEATTLE	WA (US)
IAP	ILS RWY 34R (SA CAT I & II)	1	KSEA	SEATTLE	WA (US)
IAP	RNAV (GPS) Y RWY 16C		KSEA	SEATTLE	WA (US)
IAP	RNAV (GPS) Y RWY 16L		KSEA	SEATTLE	WA (US)
IAP	RNAV (GPS) Y RWY 16R		KSEA	SEATTLE	WA (US)
IAP	RNAV (RNP) Z RWY 16C		KSEA	SEATTLE	WA (US)
IAP	RNAV (RNP) Z RWY 16L		KSEA	SEATTLE	WA (US)
IAP	RNAV (RNP) Z RWY 16R		KSEA	SEATTLE	WA (US)
IAP	RNAV (GPS)-A		KS43	SNOHOMISH	WA (US)
SPECIAL IAP	RNAV (RNP) M RWY 16R		KSEA	SEATTLE	WA (US)
STAR	MADEE (RNAV)		CYXX	ABBOTSFORD, BRITISH COLUMBIA	(CA)
STAR	MADEE (RNAV)		CZBB	DELTA, BC	(CA)
STAR	MADEE (RNAV)		KBFI	BELLINGHAM	WA (US)
STAR	EPHRATA		KRNT	RENTON	WA (US)
STAR	GLASR		KRNT	RENTON	WA (US)
STAR	EPHRATA		KBFI	SEATTLE	WA (US)
STAR	GLASR		KBFI	SEATTLE	WA (US)
STAR	EPHRATA		KSEA	SEATTLE	WA (US)
STAR	GLASR		KSEA	SEATTLE	WA (US)
STAR	GLASR		KTCM	TACOMA	WA (US)

REQUIRED CHARTING: DP, STAR, IAP, CONTROLLER, EN ROUTE LOW, EN ROUTE HIGH, SPECIAL IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 18

DATE OF REVISION: 12/07/2017

REASON FOR REVISION:

1. AMENDED PAT 1 200 KIAS AND 310 KIAS CONTROLLING OBSTACLE HEIGHT FROM 814 MSL TO 817 MSL AND OBSTACLE ID FROM KPAET000224 TO 53-034715 TO MATCH UPDATED AIRNAV DATA. NO CHANGE TO MIN HOLDING ALTITUDE.
2. DELETED JAWBN STAR AT KSEA FROM FIX USE.
3. ADDED RNAV (GPS) Y RWY 16R AT KSEA TO FIX USE.
4. DELETED VOR/DME RWY 16R AT KPAE FROM FIX USE.
5. ADDED VOR-A AT KPAE TO FIX USE.
6. AMENDED ILS OR LOC/DME Z RWY 16R TO ILS Z OR LOC Z RWY 16R AT KPAE IN FIX USE.
7. AMENDED ILS OR LOC/DME Y RWY 16R TO ILS Y OR LOC Y RWY 16R AT KPAE IN FIX USE.

DEVELOPED BY: **DATE:** 08/01/2017 **OFFICE:** AJV-5422 **NAME:** PETER GUIMOND

APPROVED BY: **DATE:** **OFFICE:** AJV-5420 **NAME:** JULIE MORGAN

SIGNATURE:

DISTRIBUTION: **NFDC**
FPO: WST
ARTCC: ZSE
ATC FACILITY: SEA APP CON
OTHER:

RADIO FIX AND HOLDING DATA RECORD

NAME: PENN COVE VOR/DME

STATE: WA

COUNTRY: US

ICAO REGION CODE: K1

LATITUDE/LONGITUDE: 481440.90N/1224327.90W

TYPE:

AIRSPACE DOCKET:

FIX TYPE OF ACTION: MODIFY

FIX MAKE-UP FACILITIES:

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM FAC NM	FEET	MRA	MAA
1	PENN COVE	CVV	VOR/DME	L							17500

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

PATTERNS:

PAT	DIR	IDENT	TYPE	RAD/CRS/BRG	CRS INBOUND	TURN (L OR R)	LEG TIME	LENGTH DME	HOLDING ALTITUDES MIN	MAX	TEMPLATES MIN	MAX
1	S		WP	166.32	346.32	L		5	3400	10000	5	10
2	S	CVV	VOR/DME	166.32	346.32	L	1		3400	10000	4	9
3	S		WP	166.32	346.32	L		4	1800	10000	4	10
4	S	CVV	VOR/DME	166.32	346.32	L	1		1800	10000	4	9

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	AAO	480657.00N/1224954.00W	555	4E
1	310	AAO	480055.10N/1225522.80W	2360	6C
2	200	AAO	480657.00N/1224954.00W	555	4E
2	310	AAO	480055.10N/1225522.80W	2360	6C
3	200	AAO	480657.00N/1224954.00W	555	4E
4	200	AAO	480657.00N/1224954.00W	555	4E

REASON FOR NONSTANDARD HOLDING:

PAT 1 AIRSPACE
PAT 2 AIRSPACE
PAT 3 AIRSPACE
PAT 4 AIRSPACE

HOLDING RESTRICTIONS:

HOLDING LIMITED TO ESTABLISHED PATTERNS.

PROCEDURES REQUIRING CLIMB-IN-HOLD:

PAT	PROCEDURE TITLE	AIRPORT IDENT	CITY	STATE
1	RNAV (GPS) RWY 7	KOKH	OAK HARBOR	WA (US)
2	TAKEOFF MINIMUMS	KBVS	BURLINGTON/MOUNT VERNON	WA (US)
2	TAKEOFF MINIMUMS	K0S9	PORT TOWNSEND	WA (US)

REMARKS:

PRIOR COORDINATION REQUIRED WITH CONTROLLING AGENCY FOR HOLDING OVER R-6701
PAT 3 AND 4 FOR ATC USE (NUW APP CON) - NOT CHARTED.
PRECIPITOUS TERRAIN EVALUATION COMPLETED.
ASSIGNED FACILITY MAGVAR: 19E (2000).

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	KIENO			KBLI	BELLINGHAM	WA (US)
DP	TAKEOFF MINIMUMS		2	KBVS	BURLINGTON/MOUNT VERNON	WA (US)
DP	PENN COVE			KNUW	OAK HARBOR	WA (US)
DP	TAKEOFF MINIMUMS		2	K0S9	PORT TOWNSEND	WA (US)
DP	BANGR (RNAV)			KSEA	SEATTLE	WA (US)
EN ROUTE	V165					(US)
EN ROUTE	V287					(US)
IAP	MADEE (RNAV)			CZBB	DELTA, BC	(CA)
IAP	RNAV (GPS) RWY 34			KORS	EASTSOUND	WA (US)
IAP	RNAV (GPS)-A			KORS	EASTSOUND	WA (US)
IAP	ILS Y OR LOC Y RWY 16R			KPAE	EVERETT	WA (US)
IAP	ILS Z OR LOC Z RWY 16R			KPAE	EVERETT	WA (US)
IAP	ILS Z RWY 16R (SA CAT II)			KPAE	EVERETT	WA (US)
IAP	RNAV (GPS) RWY 34			KFHR	FRIDAY HARBOR	WA (US)
IAP	ILS OR LOC/DME RWY 14			KNUW	OAK HARBOR	WA (US)
IAP	TACAN RWY 14			KNUW	OAK HARBOR	WA (US)
IAP	TACAN RWY 25			KNUW	OAK HARBOR	WA (US)
IAP	TACAN RWY 32			KNUW	OAK HARBOR	WA (US)
IAP	RNAV (GPS) RWY 7		1	KOKH	OAK HARBOR	WA (US)
IAP	ILS OR LOC RWY 8			KCLM	PORT ANGELES	WA (US)
STAR	MADEE (RNAV)			CYXX	ABBOTSFORD, BRITISH COLUMBIA	(CA)
STAR	MADEE (RNAV)			KBLI	BELLINGHAM	WA (US)
STAR	JAWBN			KBFI	SEATTLE	WA (US)
STAR	JAWBN			KSEA	SEATTLE	WA (US)
STAR	JAWBN			KTCM	TACOMA	WA (US)

REQUIRED CHARTING: DP, STAR, MILITARY IAP, IAP, CONTROLLER, EN ROUTE LOW

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 9

DATE OF REVISION: 12/07/2017

REASON FOR REVISION:

1. ADDED MILITARY DP TO REQUIRED CHARTING.
2. ADDED ASSIGNED FACILITY MAGVAR TO REMARKS.
3. AMENDED ILS OR LOC/DME Z RWY 16R TO ILS Z OR LOC Z RWY 16R AT KPAE IN FIX USE.
4. AMENDED ILS OR LOC/DME Y RWY 16R TO ILS Y OR LOC Y RWY 16R AT KPAE IN FIX USE.
5. ADDED JWBN STAR AT KBFI AND KTCM TO FIX USE.
6. ADDED MADEE STAR AT CYXX AND CZBB TO FIX USE.

DEVELOPED BY: **DATE:** 08/01/2017 **OFFICE:** AJV-5422 **NAME:** PETER GUIMOND

APPROVED BY: **DATE:** **OFFICE:** AJV-5420 **NAME:** JULIE MORGAN

SIGNATURE:

DISTRIBUTION: **NFDC**
 FPO: WST
 ARTCC: ZSE
 ATC FACILITY: NUW APP CON, VICTORIA APP CON
 OTHER: