


US Department of Transportation Federal Aviation Administration							STAR - Standard Terminal Arrival		1. Bearings, headings, courses and radials are listed to the nearest hundredth (e.g. 360.00) 2. Distances are in nautical miles to nearest hundredth (e.g. 00.00) 3. Altitudes are minimum altitudes unless otherwise indicated
(1) Transition Routes									
(a) Transition Name	(b) Transition Computer Codes	(c) From RNAV WP / FIX / NAVAID	(d) To RNAV WP / FIX / NAVAID	(e) Mag Course / Distance	(f) MEA	(g) MOCA	(h) MAA	(i) Crossing Altitudes / Fixes	
ELLENSBURG	ELN.ELN1	ELN VORTAC	ELN VORTAC THICK RADDY ENNUM KPOWW	254.00/15.17 254.27/28.33 252.05/21.86 205.34/09.42	10000 10000 8600 4700			AT/BELOW FL240 BETWEEN 10000 AND 11000 BETWEEN 9000 AND 10000 BETWEEN 5700 AND 9000	
(2) Arrival Route Description: LANDING RWY 16: FROM KPOWW ON TRACK 269.96/3.50 TO CROSS WAALP BETWEEN 4700 AND 5700 (MEA 4000), THEN ON HEADING 325.00 OR AS ASSIGNED BY ATC. EXPECT RADAR VECTORS TO FINAL APPROACH COURSE. LANDING RWY 34: FROM KPOWW ON TRACK 205.22/7.23 TO CROSS OWSIN AT/ABOVE 5600 (MEA 4200), THEN ON TRACK 254.48/4.02 TO TUNNR (MEA 3000), THEN ON TRACK 311.38/3.53 TO CROSS JETEM AT/ABOVE 3200 (MEA 2000). EXPECT ILS OR VISUAL APPROACH.									
(3) Procedural Data Notes: NOTE: RADAR REQUIRED. NOTE: RNAV 1. NOTE: DME/DME/IRU OR GPS REQUIRED. NOTE: CROSS KPOWW AT/BELOW 230 KIAS. NOTE: TURBOJET AIRCRAFT DESCEND VIA MACH NUMBER UNTIL INTERCEPTING 280 KIAS. MAINTAIN 280 KIAS UNTIL SLOWED BY STAR.									
(4) Fixes and/or Holding Patterns: CHART RWY 34 LOCALIZER, CHART RWY 16 LOCALIZER, CHART TCM VORTAC. CHART HOLDING AT CUBIT: W, RT, 082.00 INBOUND, 9 NM LEGS. CHART HOLDING AT STEIL: W, RT, 072.00 INBOUND, 9 NM LEGS.									
(5) Communications: TCM ATIS, SEA APP CON, TCM TWR, TCM GND									
(6) Arrival Name ELLENSBURG RNAV	(7) Number ONE	(8) STAR Computer Code ELN.ELN1	(9) Superseded Nr. NONE	(10) Dated		(11) Effective Date 29 MAY 2014			

(12) Airports Served					
Airport Name MCCHORD FIELD			City/State TACOMA, WA		
Airport Name			City/State		
Airport Name			City/State		
Airport Name			City/State		
Airport Name			City/State		
Airport Name			City/State		
(13) Lost Communications Procedure: RWY 16: AT WAALP, PROCEED DIRECT STEIL AND EXECUTE APPROACH, IF UNABLE HOLD AS PUBLISHED, MAINTAIN 4000, SQUAWK APPROPRIATE BEACON CODE. RWY 34: AT JETEM, EXECUTE APPROACH, IF UNABLE, PROCEED DIRECT CUBIT AND HOLD AS PUBLISHED, MAINTAIN 4000, SQUAWK APPROPRIATE BEACON CODE.					
(14) Remarks:					
(15) Additional Flight Data: DME/DME ASSESSMENT: SAT (RNP 2.0). REFERENCE MAGNETIC VARIATION: KTCM 20E/1985					
					
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(16) Continuation:**(17) Changes:****(18) Reasons for Changes:**

(6) Arrival Name ELLENSBURG RNAV	(7) Number ONE	(8) STAR Computer Code ELN.ELN1	(9) Superseded Nr. NONE	(10) Dated	(11) Effective Date 29 MAY 2014
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US Department of Transportation Federal Aviation Administration				RNAV STAR (Data Record)						
(1) FIX/NAVAID	(2) LAT/LONG	(3) C	(4) FO/FB	(5) LEG	(6) TC	(7) DIST	(8) ALTITUDE	(9) SPEED	(10) REMARKS	
En Route Transition										
ELN VORTAC	470127.75N / 1202730.29W	Y		IF			AT/BELOW FL240		ELN.ELN1	
THICK	470229.04N / 1204937.78W	Y	FB	TF	274.00	15.17				
RADDY	470428.09N / 1213058.25W	Y	FB	TF	274.27	28.33	10000B11000			
ENNUM	470510.49N / 1220256.77W	Y	FB	TF	272.05	21.86	9000B10000			
KPOWW	465833.07N / 1221243.77W	Y	FB	TF	225.34	09.42	5700B9000	AT/BELOW 230K		
Runway Transition										
KPOWW	465833.07N / 1221243.77W	Y		IF			5700B9000	AT/BELOW 230K		
WAALP	465944.55N / 1221731.82W	Y	FO	TF	289.96	03.50	4700B5700			
KTCM:RWY 16				VM	345.00					
Runway Transition										
KPOWW	465833.07N / 1221243.77W	Y		IF			5700B9000	AT/BELOW 230K		
OWSIN	465327.50N / 1222012.63W	Y	FB	TF	225.22	07.23	AT/ABOVE 5600			
TUNNR	465346.15N / 1222602.90W	Y	FB	TF	274.48	04.02				
(11) Arrival Name ELLENSBURG RNAV		(12) Number ONE		(13) STAR Computer Code ELN.ELN1			(14) Superseded Nr. NONE		(15) Dated	(16) Effective Date 29 MAY 2014

US Department of Transportation Federal Aviation Administration		RNAV STAR (Data Record)							
JETEM	465651.91N / 1222830.96W	Y	FB	TF	331.38	03.53	AT/ABOVE 3200		
KTCM:RWY 34									
(11) Arrival Name ELLENSBURG RNAV	(12) Number ONE	(13) STAR Computer Code ELN.ELN1		(14) Superseded Nr. NONE		(15) Dated		(16) Effective Date 29 MAY 2014	

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STAR (Data Record)

ARINC PACKET - 424-18 - STAR

[illegible]

(11) Arrival Name ELLENSBURG RNAV	(12) Number ONE	(13) STAR Computer Code ELN.ELN1	(14) Superseded Nr. NONE	(15) Dated	(16) Effective Date 29 MAY 2014
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STAR (Data Record)

+ 03200

[illegible]

(11) Arrival Name ELLENSBURG RNAV	(12) Number ONE	(13) STAR Computer Code ELN.ELN1	(14) Superseded Nr. NONE	(15) Dated	(16) Effective Date 29 MAY 2014
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**US Department of Transportation
Federal Aviation Administration**
STAR (Data Record)

ARINC SUMMARY - 424-18 - STAR

ROUTES	TRANSITION	FIX	SEQ	USE	PATH	TURN	FO/FB	RNP	MAG(TRUE)	DISTANCE	ALTITUDE	SPEED
	ELN	ELN	010		IF		FB				AB FL240	
	ELN	THICK	020		TF		FB	1.0				
	ELN	RADDY	030		TF		FB	1.0			BT 1100010000	
	ELN	ENNUM	040		TF		FB	1.0			BT 1000009000	
	ELN	KPOWW	050		TF		FB	1.0			BT 0900005700	AB 230
RW16		KPOWW	010		IF		FB				BT 0900005700	AB 230
RW16		WAALP	020		TF		FO	1.0			BT 0570004700	
RW16		KTCM	030		VM		FB		325.0()			
RW34		KPOWW	010		IF		FB				BT 0900005700	AB 230
RW34		OWSIN	020		TF		FB	1.0			AA 05600	
RW34		TUNNR	030		TF		FB	1.0				
RW34		JETEM	040		TF		FB	1.0			AA 03200	

POINT DATA	WAYPOINT	LAT IN SECS	LONG IN SECS	LAT IN MINS	LONG IN MINS
	ELN	N470127.75	W1202730.29	N4701.463	W12027.505
	RADDY	N470428.09	W1213058.25	N4704.468	W12130.971
	THICK	N470229.04	W1204937.78	N4702.484	W12049.630
	ENNUM	N470510.49	W1220256.77	N4705.175	W12202.946
	JETEM	N465651.91	W1222830.96	N4656.865	W12228.516
	KPOWW	N465833.07	W1221243.77	N4658.551	W12212.730
	OWSIN	N465327.50	W1222012.63	N4653.458	W12220.211
	TUNNR	N465346.15	W1222602.90	N4653.769	W12226.048
	WAALP	N465944.55	W1221731.82	N4659.743	W12217.530
	RW16	N470905.52	W1222835.63	N4709.092	W12228.594
	RW34	N470725.76	W1222834.99	N4707.429	W12228.583

RUNWAY DATA	RWY	THRESHOLD	TCH
		ELEVATION	
	RW16	00282	56
	RW34	00321	59

(11)
Arrival Name
ELLENSBURG RNAV

(12)
Number
ONE

(13)
STAR Computer Code
ELN.ELN1

(14)
Superseded Nr.
NONE

(15)
Dated

(16)
Effective Date
29 MAY 2014