Tuto 6 :

Visualize and check an approach before flight.

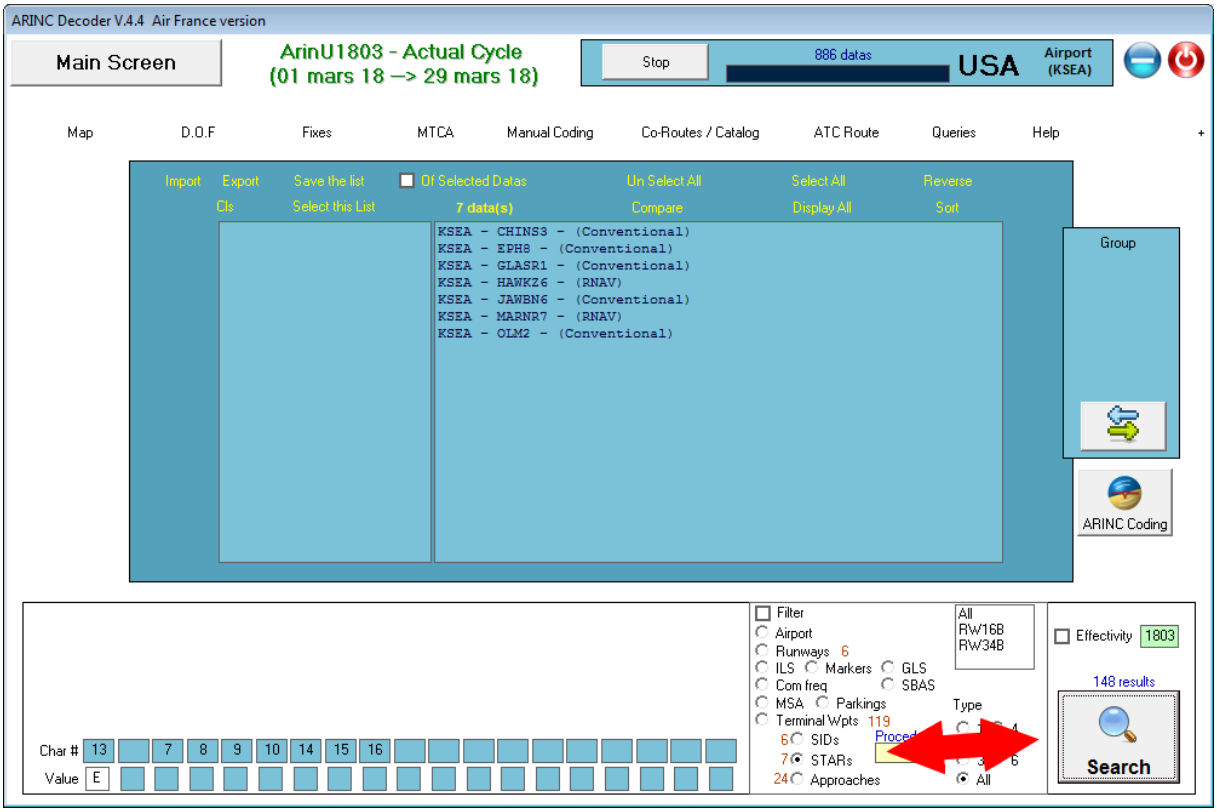
Free for the United States with the CIFP files, or with an Arinc 424 file.

We will plan to fly from LMT (Klamath) to SEA (Seattle) and to land on runway 16R. Just after airborne we will select the STAR “HAWKZ 6” transition LMT from SEA.

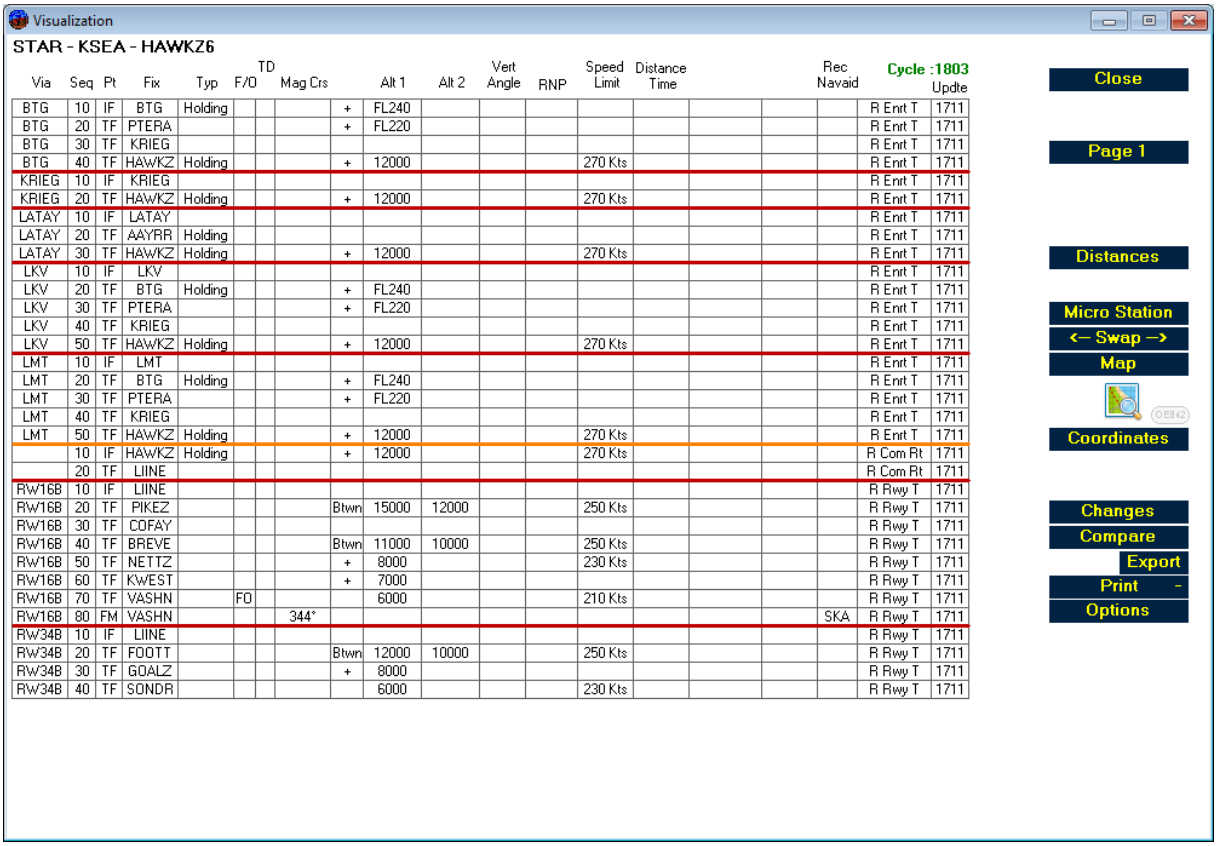
Easy to check on the Map that the coding is conform. There will be no interrogations from the ATC…

Type the airport and Load it

Then the stars + “Search”:



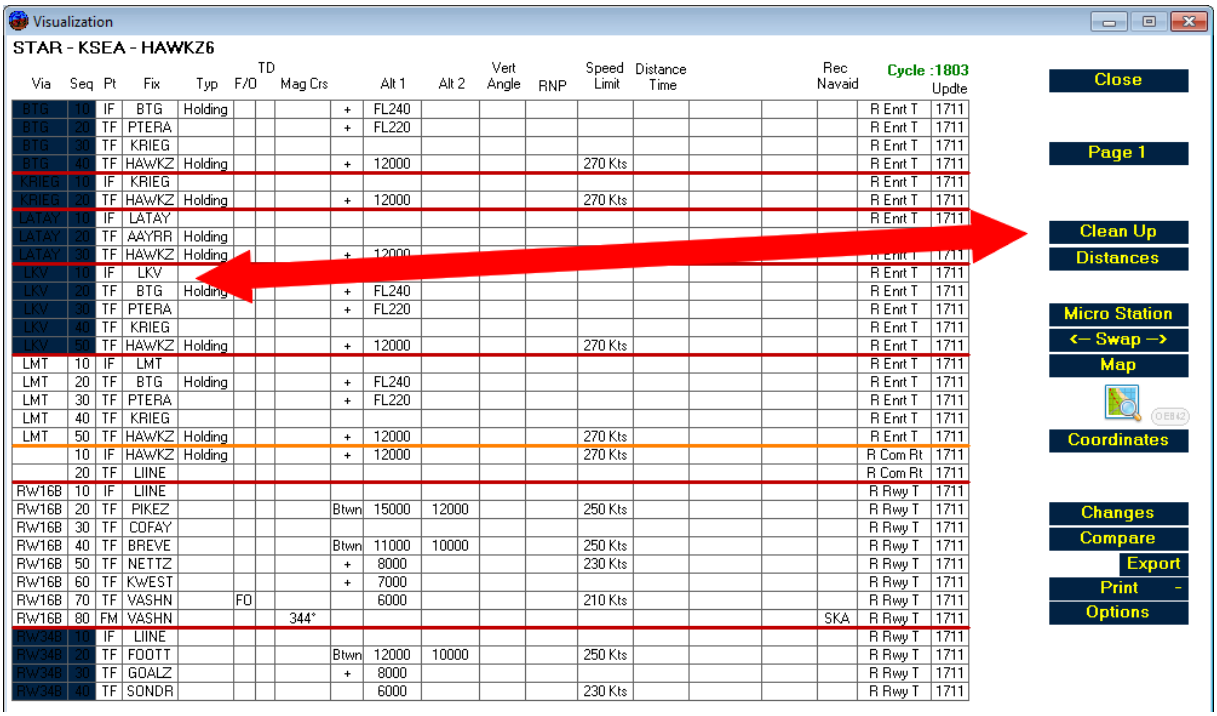
Select the good one in the list:



Via	Seq	Pt	Fix	Typ	TD F/O	Mag Crs		Alt 1	Alt 2	Vert Angle	RNP	Speed Limit	Distance Time			Rec Navaid	Cycle :1803 Updte	
BTG	10	IF	BTG	Holding			+	FL240									R Enrt T	1711
BTG	20	TF	PTERA				+	FL220									R Enrt T	1711
BTG	30	TF	KRIEG														R Enrt T	1711
BTG	40	TF	HAWKZ	Holding			+	12000				270 Kts					R Enrt T	1711
KRIEG	10	IF	KRIEG														R Enrt T	1711
KRIEG	20	TF	HAWKZ	Holding			+	12000				270 Kts					R Enrt T	1711
LATAY	10	IF	LATAY														R Enrt T	1711
LATAY	20	TF	AAYRR	Holding													R Enrt T	1711
LATAY	30	TF	HAWKZ	Holding			+	12000				270 Kts					R Enrt T	1711
LKV	10	IF	LKV														R Enrt T	1711
LKV	20	TF	BTG	Holding			+	FL240									R Enrt T	1711
LKV	30	TF	PTERA				+	FL220									R Enrt T	1711
LKV	40	TF	KRIEG														R Enrt T	1711
LKV	50	TF	HAWKZ	Holding			+	12000				270 Kts					R Enrt T	1711
LMT	10	IF	LMT														R Enrt T	1711
LMT	20	TF	BTG	Holding			+	FL240									R Enrt T	1711
LMT	30	TF	PTERA				+	FL220									R Enrt T	1711
LMT	40	TF	KRIEG														R Enrt T	1711
LMT	50	TF	HAWKZ	Holding			+	12000				270 Kts					R Enrt T	1711
	10	IF	HAWKZ	Holding			+	12000				270 Kts					R Com Rt	1711
	20	TF	LIINE														R Com Rt	1711
RW16B	10	IF	LIINE														R Rwy T	1711
RW16B	20	TF	PIKEZ				Btwn	15000	12000			250 Kts					R Rwy T	1711
RW16B	30	TF	COFAY														R Rwy T	1711
RW16B	40	TF	BREVE				Btwn	11000	10000			250 Kts					R Rwy T	1711
RW16B	50	TF	NETTZ				+	8000				230 Kts					R Rwy T	1711
RW16B	60	TF	KWEST				+	7000									R Rwy T	1711
RW16B	70	TF	VASHN		FO			6000				210 Kts					R Rwy T	1711
RW16B	80	FM	VASHN			344°										SKA	R Rwy T	1711
RW34B	10	IF	LIINE														R Rwy T	1711
RW34B	20	TF	FOOTT				Btwn	12000	10000			250 Kts					R Rwy T	1711
RW34B	30	TF	GOALZ				+	8000									R Rwy T	1711
RW34B	40	TF	SONDR					6000				230 Kts					R Rwy T	1711

You have all it’s coding in full details.

To keep only LMT transition to RWY 16 clean the table by clicking on the left column of the transitions you don’t need, then press on “clean up”:



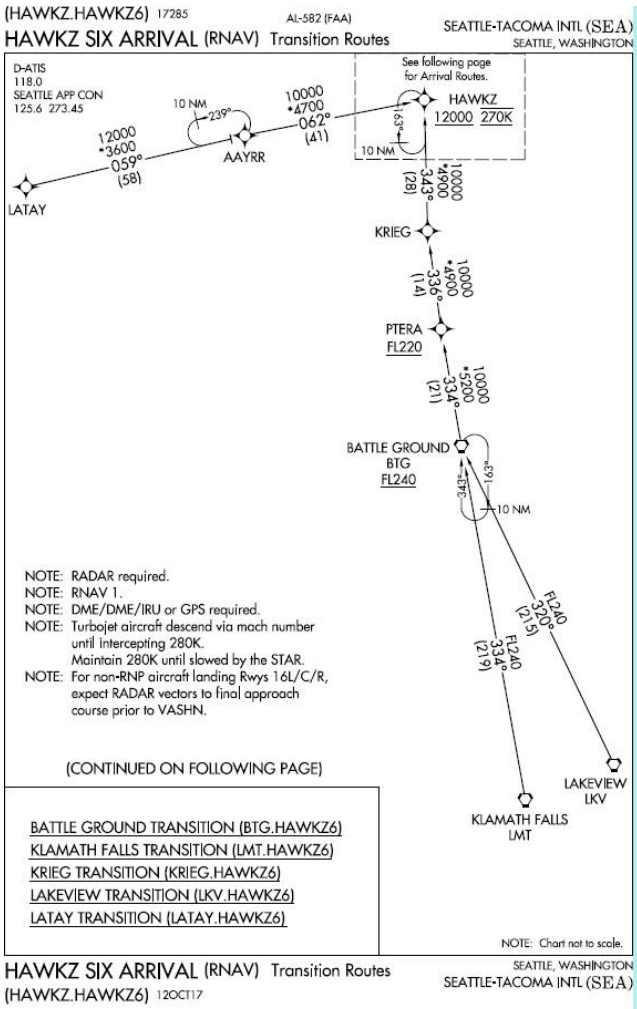
Via	Seq	Pt	Fix	Typ	TD F/O	TD Mag Crs		Alt 1	Alt 2	Vert Angle	RNP	Speed Limit	Distance Time			Rec Navaid		Updte
BTG	10	IF	BTG	Holding			+	FL240									R Enrt T	1711
BTG	20	TF	PTERA				+	FL220									R Enrt T	1711
BTG	30	TF	KRIEG														R Enrt T	1711
BTG	40	TF	HAWKZ	Holding			+	12000				270 Kts					R Enrt T	1711
KRIEG	10	IF	KRIEG														R Enrt T	1711
KRIEG	20	TF	HAWKZ	Holding			+	12000				270 Kts					R Enrt T	1711
LATAY	10	IF	LATAY														R Enrt T	1711
LATAY	20	TF	AAYRR	Holding														
LATAY	30	TF	HAWKZ	Holding			+	12000									R Enrt T	1711
LKV	10	IF	LKV														R Enrt T	1711
LKV	20	TF	BTG	Holding			+	FL240									R Enrt T	1711
LKV	30	TF	PTERA				+	FL220									R Enrt T	1711
LKV	40	TF	KRIEG														R Enrt T	1711
LKV	50	TF	HAWKZ	Holding			+	12000				270 Kts					R Enrt T	1711
LMT	10	IF	LMT														R Enrt T	1711
LMT	20	TF	BTG	Holding			+	FL240									R Enrt T	1711
LMT	30	TF	PTERA				+	FL220									R Enrt T	1711
LMT	40	TF	KRIEG														R Enrt T	1711
LMT	50	TF	HAWKZ	Holding			+	12000				270 Kts					R Enrt T	1711
	10	IF	HAWKZ	Holding			+	12000				270 Kts					R Com Rt	1711
	20	TF	LIINE														R Com Rt	1711
RW16B	10	IF	LIINE														R Rwy T	1711
RW16B	20	TF	PIKEZ				Btwn	15000	12000			250 Kts					R Rwy T	1711
RW16B	30	TF	COFAY														R Rwy T	1711
RW16B	40	TF	BREVE				Btwn	11000	10000			250 Kts					R Rwy T	1711
RW16B	50	TF	NETTZ				+	8000				230 Kts					R Rwy T	1711
RW16B	60	TF	KWEST				+	7000									R Rwy T	1711
RW16B	70	TF	VASHN		FO			6000				210 Kts					R Rwy T	1711
RW16B	80	FM	VASHN			344°										SKA	R Rwy T	1711
RW34B	10	IF	LIINE														R Rwy T	1711
RW34B	20	TF	FOOTT				Btwn	12000	10000			250 Kts					R Rwy T	1711
RW34B	30	TF	GOALZ				+	8000									R Rwy T	1711
RW34B	40	TF	SONDR					6000				230 Kts					R Rwy T	1711

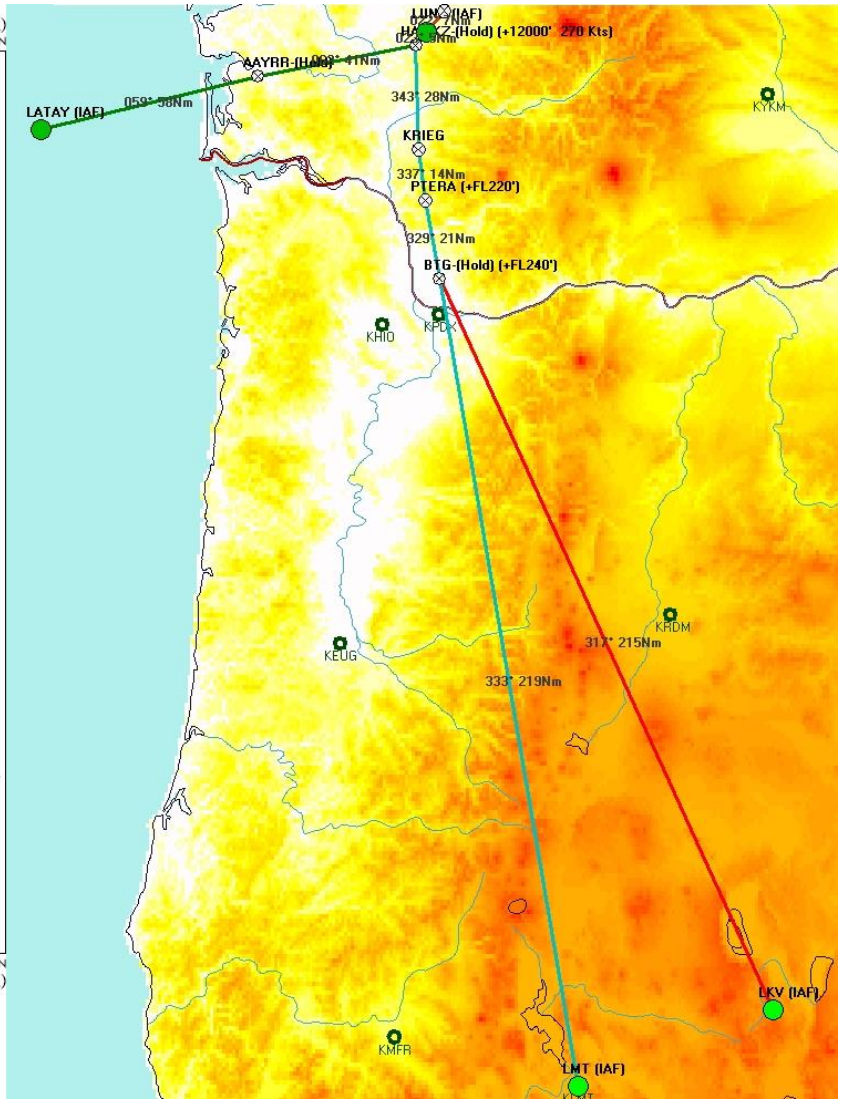
You obtain this, and with the map button (or swap then google earth)

STAR - KSEA - HAWKZ6

Via	Seq	Pt	Fix	Typ	TD F/O	TD Mag Crs		Alt 1	Alt 2	Vert Angle	RNP	Speed Limit	Distance Time			Rec Navaid		Updte
LMT	10	IF	LMT														R Enrt T	1711
LMT	20	TF	BTG	Holding			+	FL240									R Enrt T	1711
LMT	30	TF	PTERA				+	FL220									R Enrt T	1711
LMT	40	TF	KRIEG														R Enrt T	1711
LMT	50	TF	HAWKZ	Holding			+	12000				270 Kts					R Enrt T	1711
	10	IF	HAWKZ	Holding			+	12000				270 Kts					R Com Rt	1711
	20	TF	LIINE														R Com Rt	1711
RW16B	10	IF	LIINE														R Rwy T	1711
RW16B	20	TF	PIKEZ				Btwn	15000	12000			250 Kts					R Rwy T	1711
RW16B	30	TF	COFAY														R Rwy T	1711
RW16B	40	TF	BREVE				Btwn	11000	10000			250 Kts					R Rwy T	1711
RW16B	50	TF	NETTZ				+	8000				230 Kts					R Rwy T	1711
RW16B	60	TF	KWEST				+	7000									R Rwy T	1711
RW16B	70	TF	VASHN		FO			6000				210 Kts					R Rwy T	1711
RW16B	80	FM	VASHN			344°										SKA	R Rwy T	1711

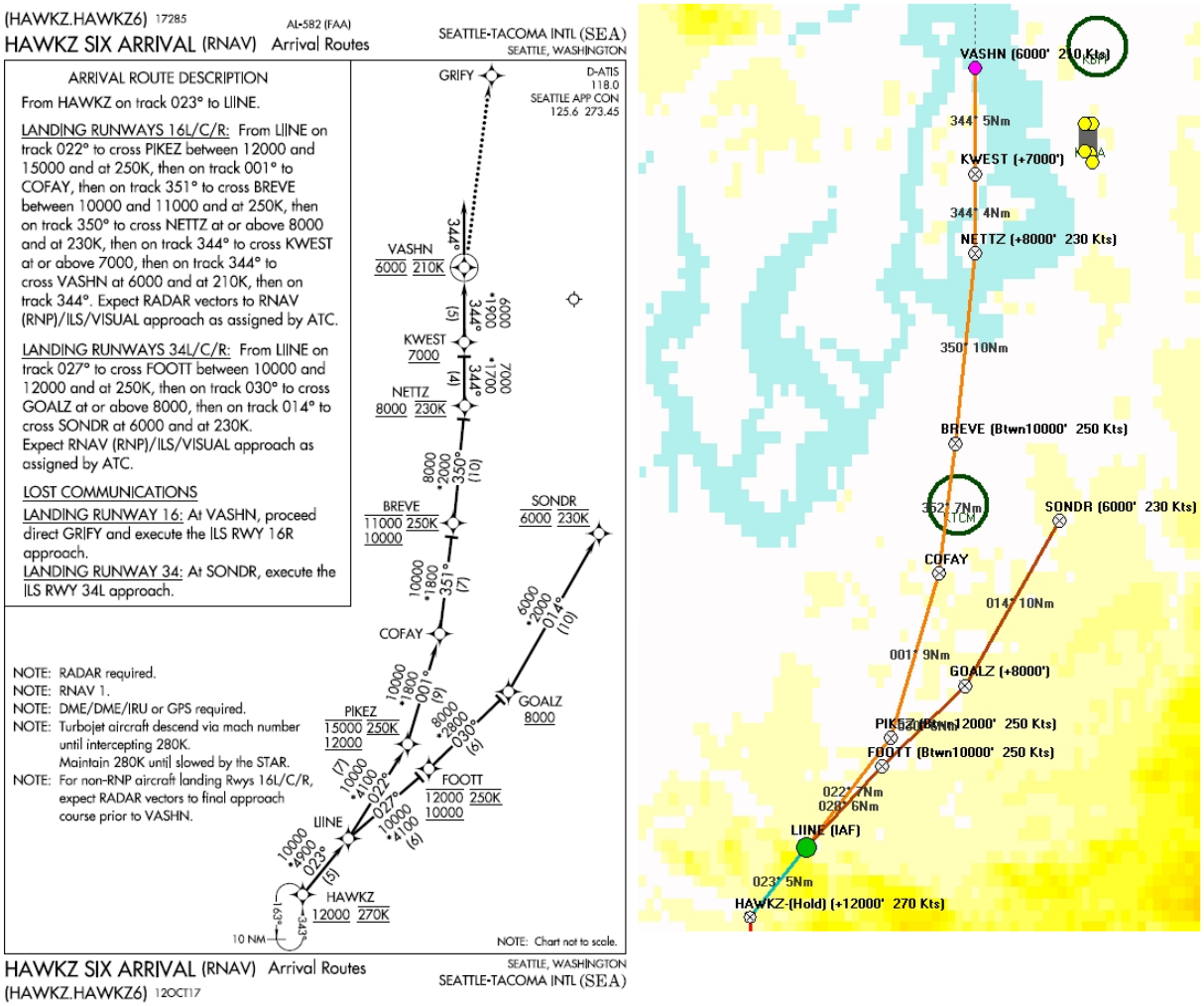
You have all on the map:



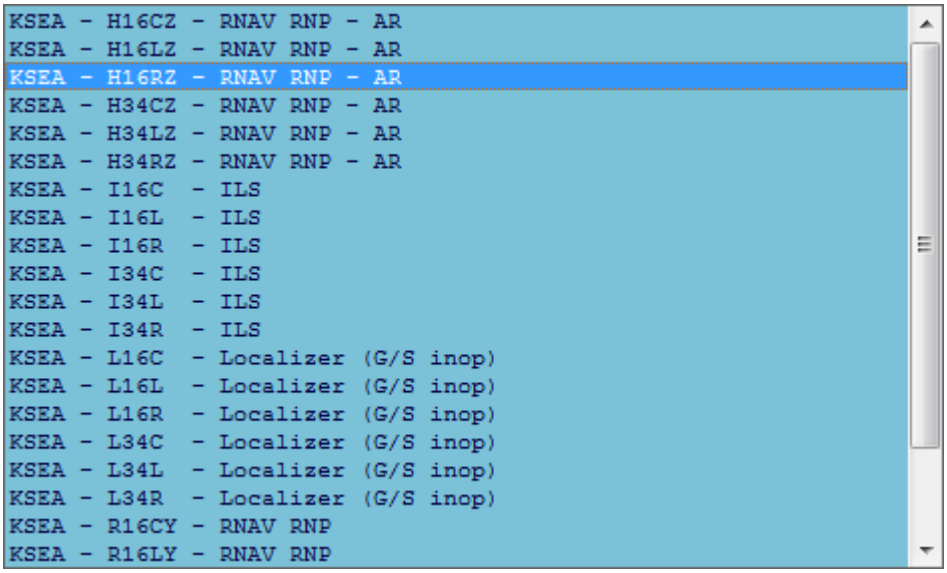


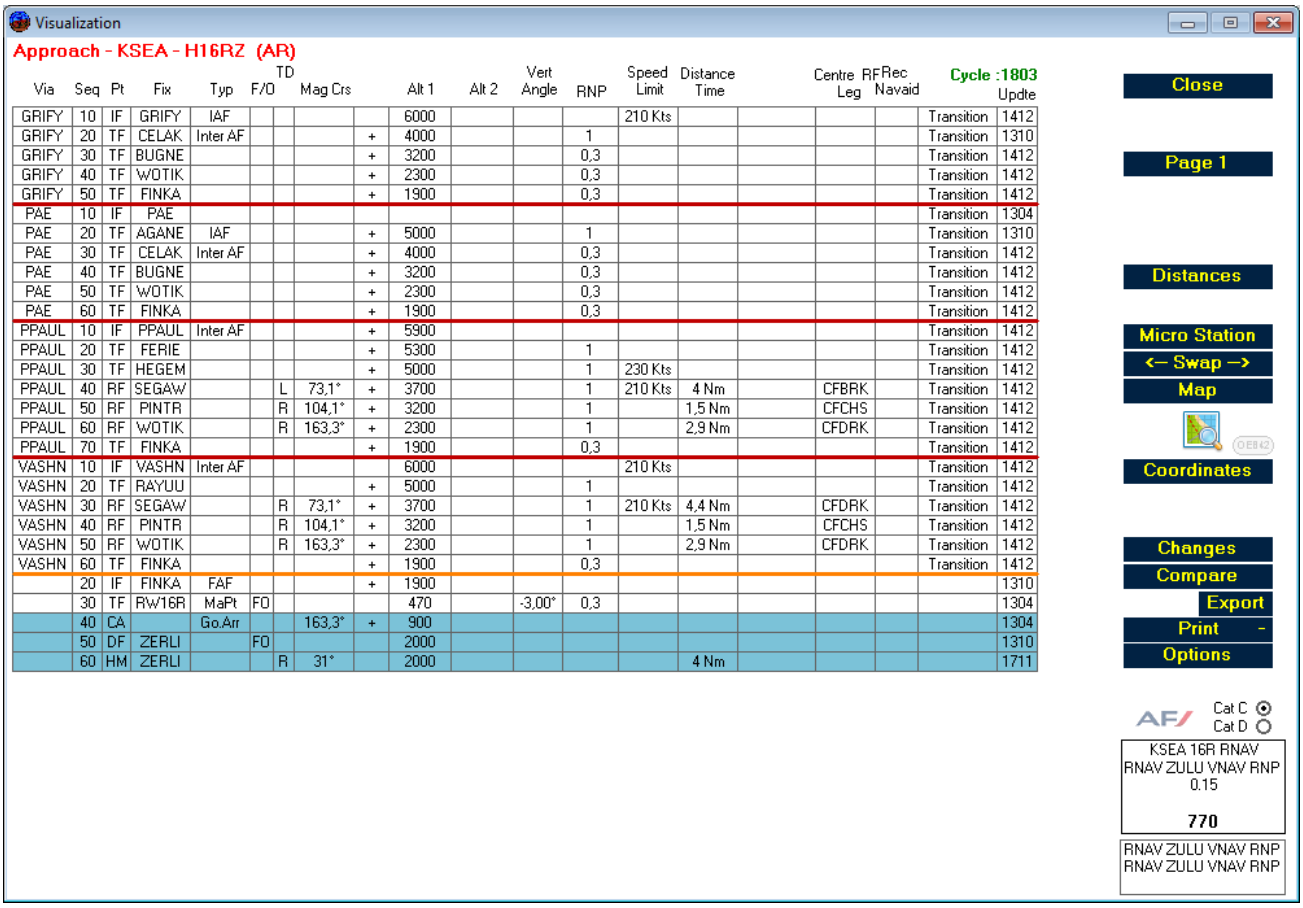
The values are OK (except the magnetic heading, it's always the same, the magvar for the map is the local one, but the FMS of the aircraft keep the value of the airport of the procedure…) here you will understand and categorize the error.

The north part of this long star…



After the star you select the approach in the list:



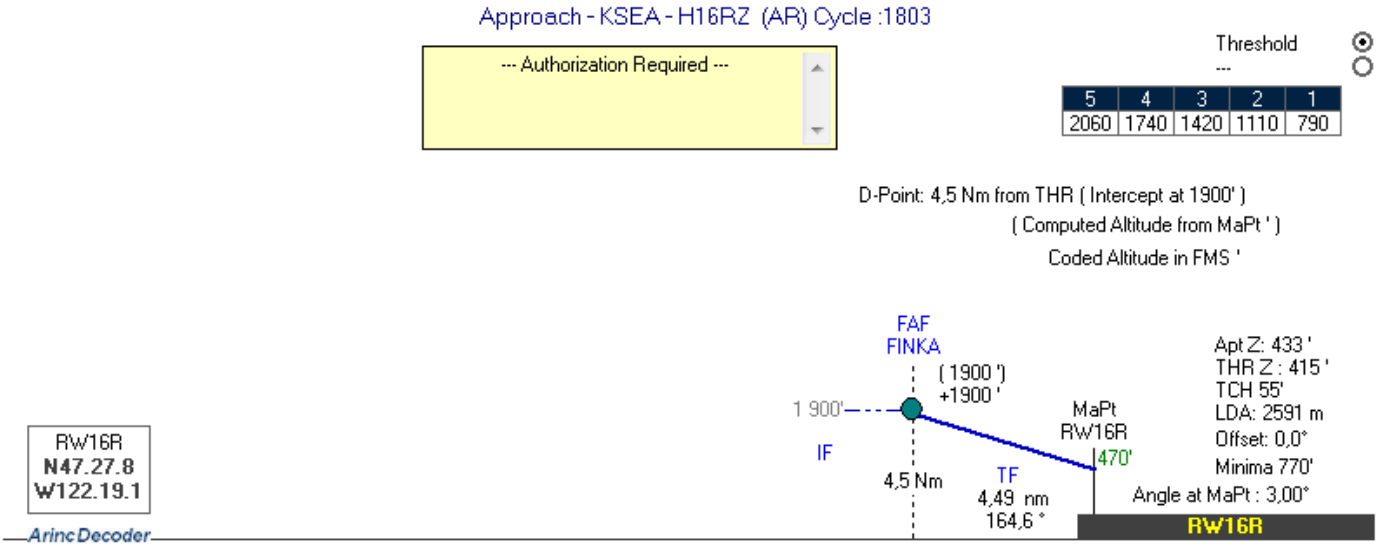


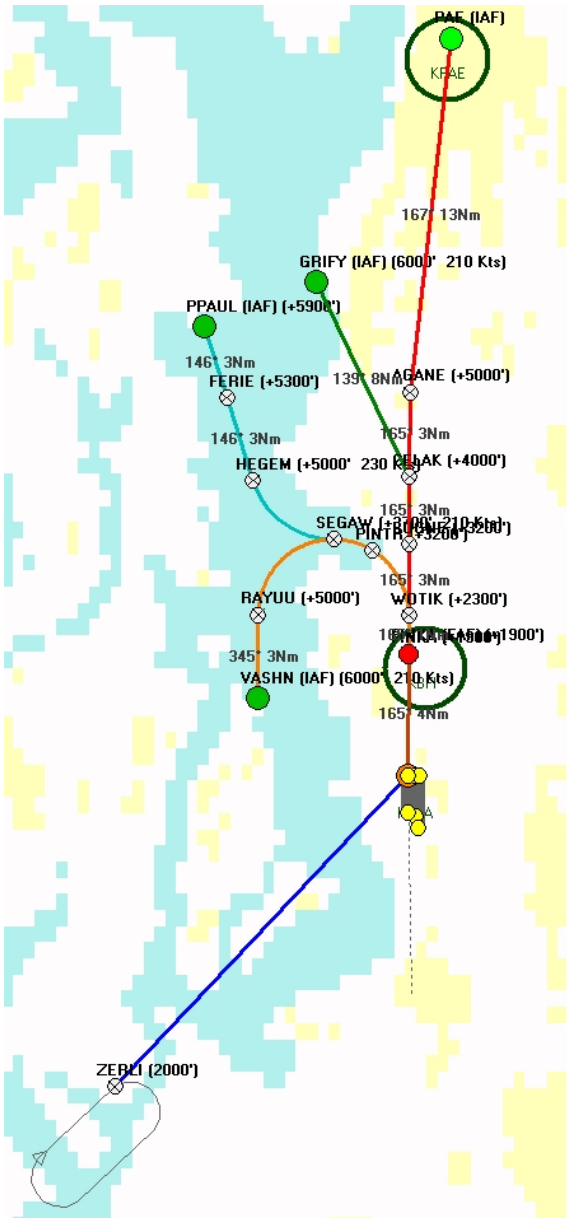
Via	Seq	Pt	Fix	Typ	TD F/O	TD	Mag Crs		Alt 1	Alt 2	Vert Angle	RNP	Speed Limit	Distance Time		Centre Leg	RF	Rec Navaid		Upde
GRIFY	10	IF	GRIFY	IAF					6000				210 Kts						Transition	1412
GRIFY	20	TF	CELAK	Inter AF				+	4000			1							Transition	1310
GRIFY	30	TF	BUGNE					+	3200			0,3							Transition	1412
GRIFY	40	TF	WOTIK					+	2300			0,3							Transition	1412
GRIFY	50	TF	FINKA					+	1900			0,3							Transition	1412
PAE	10	IF	PAE																Transition	1304
PAE	20	TF	AGANE	IAF				+	5000			1							Transition	1310
PAE	30	TF	CELAK	Inter AF				+	4000			0,3							Transition	1412
PAE	40	TF	BUGNE					+	3200			0,3							Transition	1412
PAE	50	TF	WOTIK					+	2300			0,3							Transition	1412
PAE	60	TF	FINKA					+	1900			0,3							Transition	1412
PPAUL	10	IF	PPAUL	Inter AF				+	5900										Transition	1412
PPAUL	20	TF	FERIE					+	5300			1							Transition	1412
PPAUL	30	TF	HEGEM					+	5000			1	230 Kts						Transition	1412
PPAUL	40	RF	SEGAW			L	73,1°	+	3700			1	210 Kts	4 Nm		CFBRK			Transition	1412
PPAUL	50	RF	PINTR			R	104,1°	+	3200			1		1,5 Nm		CFCHS			Transition	1412
PPAUL	60	RF	WOTIK			R	163,3°	+	2300			1		2,9 Nm		CFDRK			Transition	1412
PPAUL	70	TF	FINKA					+	1900			0,3							Transition	1412
VASHN	10	IF	VASHN	Inter AF					6000				210 Kts						Transition	1412
VASHN	20	TF	RAYUU					+	5000			1							Transition	1412
VASHN	30	RF	SEGAW			R	73,1°	+	3700			1	210 Kts	4,4 Nm		CFDRK			Transition	1412
VASHN	40	RF	PINTR			R	104,1°	+	3200			1		1,5 Nm		CFCHS			Transition	1412
VASHN	50	RF	WOTIK			R	163,3°	+	2300			1		2,9 Nm		CFDRK			Transition	1412
VASHN	60	TF	FINKA					+	1900			0,3							Transition	1412
	20	IF	FINKA	FAF				+	1900											1310
	30	TF	RW16R	MaPt	FO				470		-3,00°	0,3								1304
	40	CA		Go Arr			163,3°	+	900											1304
	50	DF	ZERLI		FO				2000											1310
	60	HM	ZERLI			R	31°		2000					4 Nm						1711

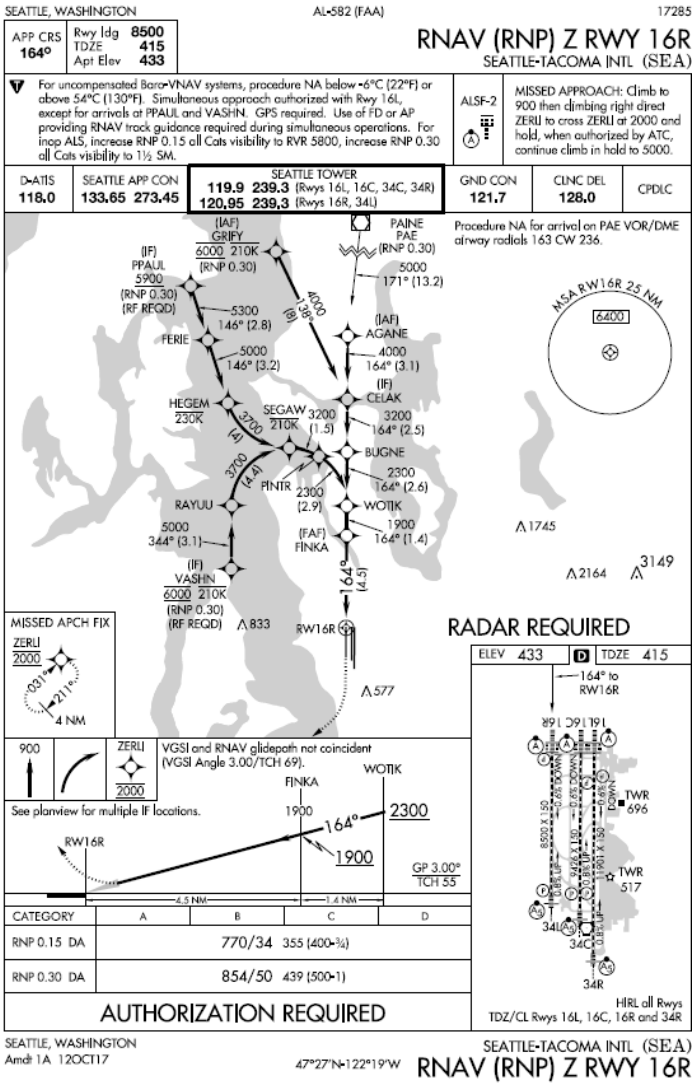
And same, one can select only the good transition:

Approach - KSEA - H16RZ (AR) — **Seattle-tacoma Intl** — **Mag Var : 16.0° E** — **Cycle :1803**

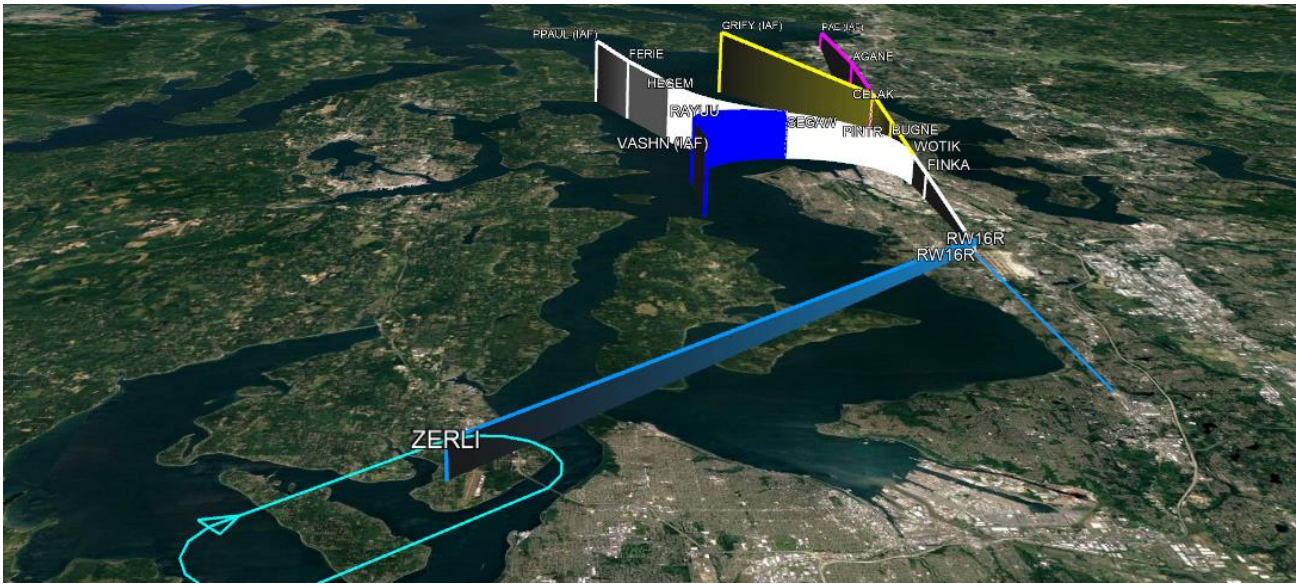
Via	Seq	Pt	Fix	Typ	TD F/O	TD	Mag Crs		Alt 1	Alt 2	Vert Angle	RNP	Speed Limit	Distance Time	Coordinates Fix	Rec Navaid		Upde
VASHN	10	IF	VASHN	Inter AF					6000				210 Kts		N47.30.7 W122.27.3		Transition	1412
VASHN	20	TF	RAYUU					+	5000			1			N47.33.8 W122.27.3		Transition	1412
VASHN	30	RF	SEGAW			R	73,1°	+	3700			1	210 Kts	4,4 Nm	N47.36.6 W122.23.2		Transition	1412
VASHN	40	RF	PINTR			R	104,1°	+	3200			1		1,5 Nm	N47.36.2 W122.21.0		Transition	1412
VASHN	50	RF	WOTIK			R	163,3°	+	2300			1		2,9 Nm	N47.33.8 W122.19.0		Transition	1412
VASHN	60	TF	FINKA					+	1900			0,3			N47.32.3 W122.19.0		Transition	1412
	20	IF	FINKA	FAF				+	1900						N47.32.3 W122.19.0			1310
	30	TF	RW16R	MaPt	FO				470		-3,00°	0,3			N47.27.8 W122.19.1			1304
	40	CA		Go Arr			163,3°	+	900									1304
	50	DF	ZERLI		FO				2000						N47.16.3 W122.35.2			1310
	60	HM	ZERLI			R	31°		2000					4 Nm	N47.16.3 W122.35.2			1711







The coding looks like very pretty similar with the official publication. (That's to check if you're checking your FMS data)



For the eyes or to confirm some obstacles, google earth is a good tool.