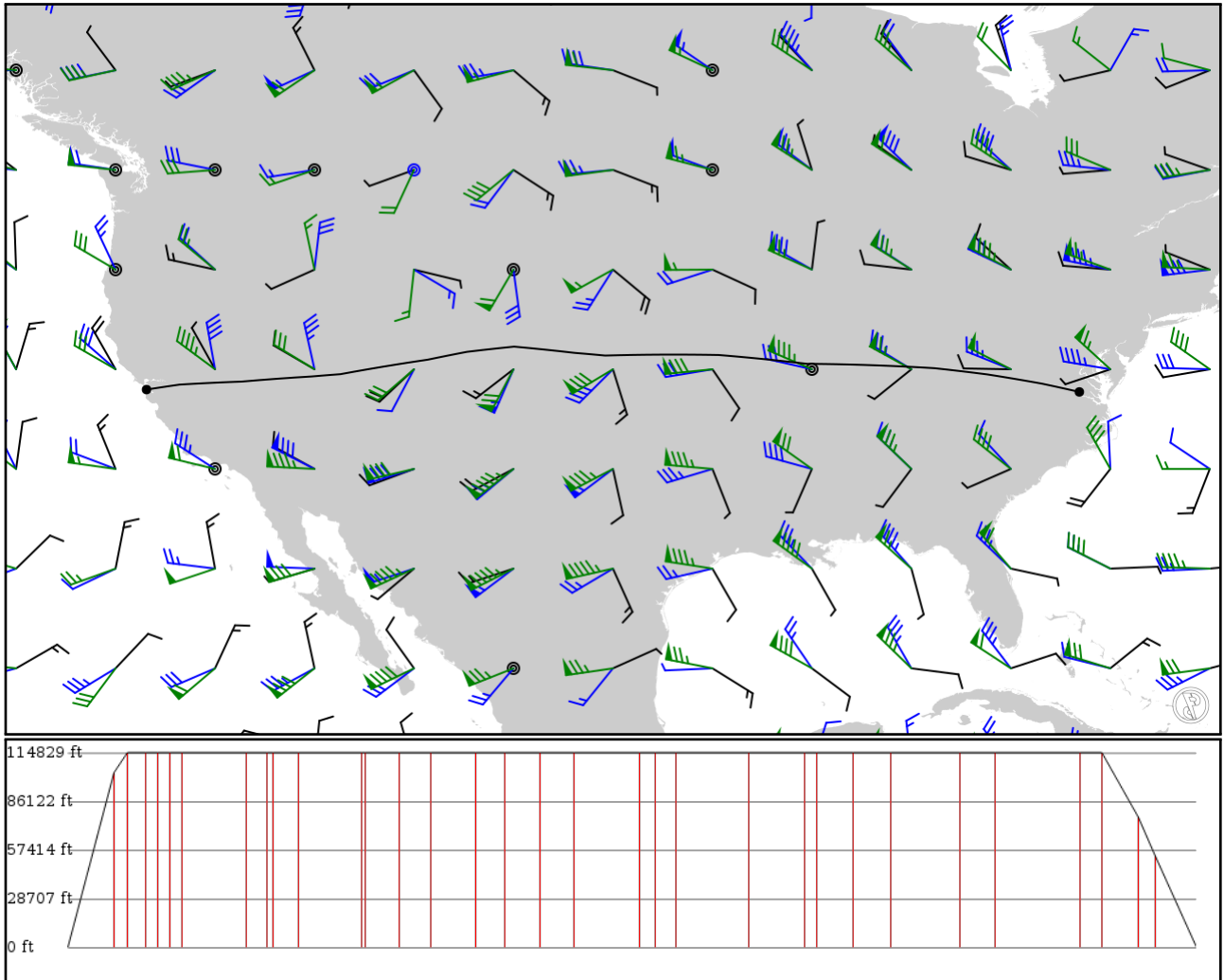


2024/05/20 0920Z

KRIC MOL J24 FLM J134 STL J24 MCI J80 MLF J58 OAL T298 NIKOL V244 WRAPS KSFO

2132.66 nm / 3949.68 km



Notes

Basic altitude profile:

- Ascent Rate: 2500ft/min
- Ascent Speed: 250kts
- Cruise Altitude: 35000ft
- Cruise Speed: 420kts
- Descent Rate: 1500ft/min
- Descent Speed: 250kts

Options:

- Use NATs: yes
- Use PACOTS: yes
- Use low airways: yes
- Use high airways: yes

Route

Ident Type	Via	Lat Lon	Alt	Dist (nm)	Name
KRIC APT	-	37.50470 -77.32020	0 ft 0 m	-	Richmond Intl
MOL VOR	-	37.90050 -79.10690	31,400 ft 9,571 m	88	MONTEBELLO
BIGAL FIX	J24 AWY-HI	37.99230 -79.62070	35,000 ft 10,668 m	24	-
OAKLE FIX	J24 AWY-HI	38.12050 -80.36250	35,000 ft 10,668 m	35	-
TUKEY FIX	J24 AWY-HI	38.19290 -80.79530	35,000 ft 10,668 m	20	-
TARCI FIX	J24 AWY-HI	38.27670 -81.30950	35,000 ft 10,668 m	24	-
HVQ VOR	J24 AWY-HI	38.34970 -81.76990	35,000 ft 10,668 m	22	CHARLESTON
FLM VOR	J24 AWY-HI	38.64940 -84.31060	35,000 ft 10,668 m	120	FALMOUTH
GBEES FIX	J134 AWY-HI	38.69850 -85.17030	35,000 ft 10,668 m	40	-
MOSEY FIX	J134 AWY-HI	38.70930 -85.37570	35,000 ft 10,668 m	9	-
JUDDI FIX	J134 AWY-HI	38.75940 -86.44020	35,000 ft 10,668 m	49	-
CAROL FIX	J134 AWY-HI	38.83920 -88.97120	35,000 ft 10,668 m	118	-
JIGSY FIX	J134 AWY-HI	38.84220 -89.11970	35,000 ft 10,668 m	6	-
STL VOR	J134 AWY-HI	38.86070 -90.48240	35,000 ft 10,668 m	63	SAINT LOUIS
WELTS FIX	J24 AWY-HI	39.00640 -91.77280	35,000 ft 10,668 m	60	-
DRIVL FIX	J24 AWY-HI	39.18520 -93.57490	35,000 ft 10,668 m	84	-
MCI VOR	J24 AWY-HI	39.28530 -94.73710	35,000 ft 10,668 m	54	KANSAS CITY
CATTS FIX	J80 AWY-HI	39.30320 -96.15380	35,000 ft 10,668 m	65	-
SLOWR FIX	J80 AWY-HI	39.30410 -97.52800	35,000 ft 10,668 m	63	-
HLC VOR	J80 AWY-HI	39.25870 -100.22600	35,000 ft 10,668 m	125	HILL CITY
CUGGA FIX	J80 AWY-HI	39.31770 -100.86900	35,000 ft 10,668 m	30	-
GLD VOR	J80 AWY-HI	39.38790 -101.69200	35,000 ft 10,668 m	38	GOODLAND
FQF VOR	J80 AWY-HI	39.69010 -104.62100	35,000 ft 10,668 m	136	FALCON (DENVER)
DBL VOR	J80 AWY-HI	39.43930 -106.89500	35,000 ft 10,668 m	106	RED TABLE (EAGLE)
GLENO FIX	J80 AWY-HI	39.34770 -107.36900	35,000 ft 10,668 m	22	-
JNC VOR	J80 AWY-HI	39.05960 -108.79300	35,000 ft 10,668 m	68	GRAND JUNCTION
SAKES	J80	38.83350	35,000 ft	70	-

Ident Type	Via	Lat Lon	Alt	Dist (nm)	Name
FIX	AWY-HI	-110.27100	10,668 m		
MLF	J80	38.36040	35,000 ft	131	MILFORD
VOR	AWY-HI	-113.01300	10,668 m		
ILC	J58	38.25020	35,000 ft	65	WILSON CREEK
VOR	AWY-HI	-114.39400	10,668 m		
OAL	J58	38.00330	35,000 ft	160	COALDALE
VOR	AWY-HI	-117.77000	10,668 m		
NIKOL	T298	37.96750	35,000 ft	43	-
FIX	AWY-LO	-118.68300	10,668 m		
DUCKE	V244	37.89770	23,400 ft	67	-
FIX	AWY-LO	-120.10100	7,132 m		
WRAPS	V244	37.85790	16,400 ft	32	-
FIX	AWY-LO	-120.78400	4,999 m		
KSFO	-	37.61850	0 ft	76	San Francisco International
APT	-	-122.37500	0 m		

KRIC

Region: UNITED STATES
Timezone: AMERICA/NEW_YORK
Runways: 3

Elevation: 168 ft / 51 m
Location: 37.504700 -77.320200
Magnetic Var: 10.509 W

METAR

KRIC 200902Z 00000KT 2 1/2SM BR OVC003 16/15 A3001 RMK AO2 CIG 002V005 T01610150

TAF

KRIC 200817Z 2008/2106 VRB04KT 2SM BR BKN002 FM201200 00000KT 2SM BR SCT006 FM201400 05004KT P6SM BKN015 FM201700

Frequencies

REC - 119.15 MHz - ATIS	COM - 122.95 MHz - RICHMOND UNICOM
GND - 121.90 MHz - RICHMOND GROUND	TWR - 121.10 MHz - RICHMOND TOWER
CLD - 127.55 MHz - CLEARANCE DELIVERY	DEP - 126.40 MHz - POTOMAC DEPARTURE
DEP - 126.75 MHz - POTOMAC DEPARTURE	APP - 118.20 MHz - POTOMAC APPROACH
APP - 126.40 MHz - POTOMAC APPROACH	APP - 126.75 MHz - POTOMAC APPROACH

Runways

Ident	Width	Length	Bearing (true) (mag)	Surface	Threshold Offset	Overrun Length
16	150 ft	9,012 ft	147.57	ASPHALT	0 ft	1,004 ft
	46 m	2,747 m	158.08		0 m	306 m
34	150 ft	9,012 ft	327.58	ASPHALT	0 ft	994 ft
	46 m	2,747 m	338.09		0 m	303 m
02	150 ft	6,620 ft	13.41	ASPHALT	0 ft	200 ft
	46 m	2,018 m	23.92		0 m	61 m
20	150 ft	6,620 ft	193.41	ASPHALT	0 ft	276 ft
	46 m	2,018 m	203.92		0 m	84 m
07	100 ft	5,180 ft	57.36	ASPHALT	0 ft	190 ft
	30 m	1,579 m	67.87		0 m	58 m
25	100 ft	5,180 ft	237.37	ASPHALT	0 ft	0 ft
	30 m	1,579 m	247.88		0 m	0 m

Approach Nav aids

Runway	Type	Ident	Frequency	Range	Bearing (true) (mag)	Slope	Elevation
02	LOC-ILS	IEZD	110.90 MHz	18 nm	13.41	-	168 ft
				33 km	23.92		168 m
16	LOC-ILS	IRGJ	110.70 MHz	18 nm	147.58	-	168 ft
				33 km	158.09		168 m
34	LOC-ILS	IBNE	110.70 MHz	18 nm	327.58	-	168 ft
				33 km	338.09		168 m
02	GS	IEZD	110.90 MHz	10 nm	13.41	3.00	168 ft
				19 km	23.92		168 m
16	GS	IRGJ	110.70 MHz	10 nm	147.58	3.00	168 ft
				19 km	158.09		168 m
34	GS	IBNE	110.70 MHz	10 nm	327.58	3.00	168 ft
				19 km	338.09		168 m

KSFO

Region: UNITED STATES
Timezone: AMERICA/LOS_ANGELES
Runways: 4

Elevation: 13 ft / 4 m
Location: 37.618500 -122.375000
Magnetic Var: 12.841 E

METAR

KSFO 200856Z 23010KT 10SM BKN016 12/08 A2994 RMK AO2 SLP140 T01220078 56006 \$

TAF

TAF KSFO 200520Z 2006/2112 27008KT P6SM FEW015 FM202100 28018G25KT P6SM SKC FM210400 28010KT P6SM SKC

Frequencies

REC - 113.70 MHz - D-ATIS	REC - 115.80 MHz - D-ATIS
REC - 118.85 MHz - D-ATIS	COM - 122.95 MHz - UNICOM
CLD - 118.20 MHz -	GND - 121.80 MHz - SAN FRANCISCO GROUND
SAN FRANCISCO CLEARANCE DELIVERY	APP - 134.50 MHz - NORCAL APPROACH
TWR - 120.50 MHz - SAN FRANCISCO TOWER	APP - 128.57 MHz - NORCAL APPROACH
APP - 128.32 MHz - NORCAL APPROACH	DEP - 120.90 MHz - NORCAL DEPARTURE
APP - 133.95 MHz - NORCAL APPROACH	
DEP - 135.10 MHz - NORCAL DEPARTURE	

Runways

Ident	Width	Length	Bearing (true) (mag)	Surface	Threshold Offset	Overrun Length
10L	200 ft	11,859 ft	117.90	ASPHALT	0 ft	876 ft
	61 m	3,615 m	105.06		0 m	267 m
28R	200 ft	11,859 ft	297.92	ASPHALT	302 ft	318 ft
	61 m	3,615 m	285.08		92 m	97 m
10R	200 ft	11,371 ft	117.90	ASPHALT	0 ft	748 ft
	61 m	3,466 m	105.06		0 m	228 m
28L	200 ft	11,371 ft	297.92	ASPHALT	305 ft	322 ft
	61 m	3,466 m	285.08		93 m	98 m
01R	200 ft	8,665 ft	27.71	ASPHALT	564 ft	404 ft
	61 m	2,641 m	14.87		172 m	123 m
19L	200 ft	8,665 ft	207.72	ASPHALT	0 ft	443 ft
	61 m	2,641 m	194.88		0 m	135 m
01L	200 ft	7,664 ft	27.71	ASPHALT	643 ft	469 ft
	61 m	2,336 m	14.87		196 m	143 m
19R	200 ft	7,664 ft	207.72	ASPHALT	0 ft	446 ft
	61 m	2,336 m	194.88		0 m	136 m

Approach Nav aids

Runway	Type	Ident	Frequency	Range	Bearing (true) (mag)	Slope	Elevation
19L	DME	ISIA	108.90 MHz	18 nm	-	-	24 ft
				33 km	-		24 m
28L	DME	ISFO	109.55 MHz	18 nm	-	-	22 ft
				33 km	-		22 m
28R	DME	IGWQ	111.70 MHz	18 nm	-	-	17 ft
				33 km	-		17 m
28R	DME	IFNP	110.75 MHz	18 nm	-	-	13 ft
				33 km	-		13 m
19L	LOC-ILS	ISIA	108.90 MHz	18 nm	207.72	-	13 ft
				33 km	194.88		13 m

Runway	Type	Ident	Frequency	Range	Bearing (true) (mag)	Slope	Elevation
28L	LOC-ILS	ISFO	109.55 MHz	18 nm	297.91	-	13 ft
				33 km	285.07		13 m
28R	LOC-ILS	IGWQ	111.70 MHz	18 nm	297.91	-	13 ft
				33 km	285.07		13 m
19L	GS	ISIA	108.90 MHz	10 nm	207.72	3.00	13 ft
				19 km	194.88		13 m
28L	GS	ISFO	109.55 MHz	10 nm	297.91	2.85	13 ft
				19 km	285.07		13 m
28R	GS	IGWQ	111.70 MHz	10 nm	297.91	3.00	13 ft
				19 km	285.07		13 m