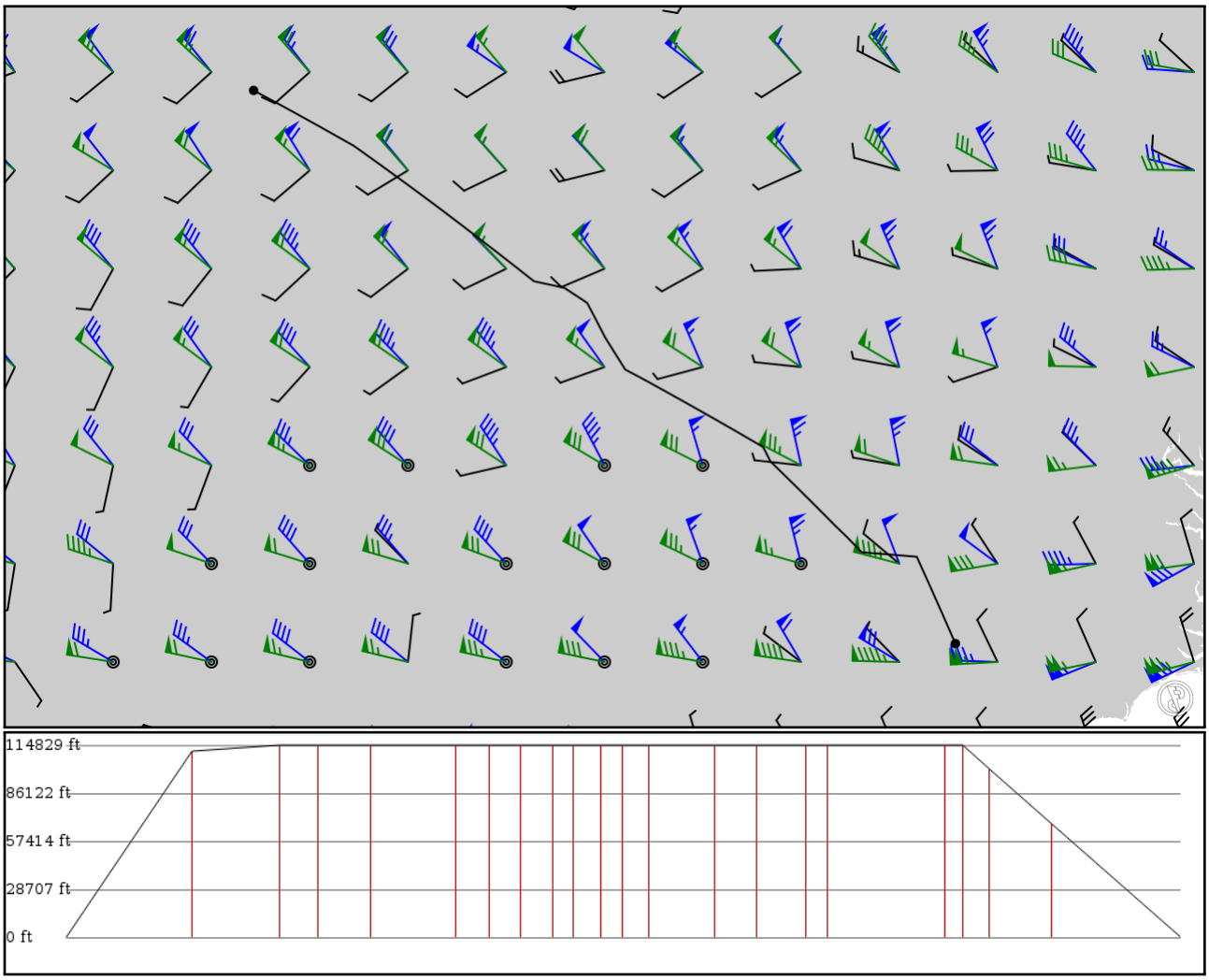
KMSP – KCLT

Minneapolis-St Paul International Airport — Charlotte Douglas Intl

2024/03/19 0444Z

KMSP ODI **J30** MOPER CADIZ **J89** MACES VHP **J24** FLM OCASE **Q63** DOOGE ALEAN KCLT

839.07 nm / 1553.95 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: no
- Use high airways: yes

Route

Ident	Via	Lat	Alt	Dist	Name
Type		Lon		(nm)	
KMSP	–	44.88190	0 ft	–	Minneapolis-St Paul International Airport
APT	–	-93.22200	0 m		
ODI	–	43.91230	33,900 ft	95	NODINE
VOR	–	-91.46750	10,333 m		
SIBER	J30	43.13470	35,000 ft	66	–
FIX	AWY-HI	-90.39270	10,668 m		
BRIBE	J30	42.79830	35,000 ft	28	–
FIX	AWY-HI	-89.94040	10,668 m		
COTON	J30	42.31990	35,000 ft	39	–
FIX	AWY-HI	-89.31220	10,668 m		
JOT	J30	41.54640	35,000 ft	64	JOLIET
VOR	AWY-HI	-88.31840	10,668 m		
MOPER	J30	41.43130	35,000 ft	24	–
FIX	AWY-HI	-87.78680	10,668 m		
CADIZ	–	41.16780	35,000 ft	23	–
FIX	–	-87.38770	10,668 m		
FATOX	J89	40.80120	35,000 ft	23	–
FIX	AWY-HI	-87.19600	10,668 m		
BVT	J89	40.55620	35,000 ft	15	BOILER (LAFAYETTE)
VOR	AWY-HI	-87.06940	10,668 m		
TORIO	J89	40.24910	35,000 ft	20	–
FIX	AWY-HI	-86.87600	10,668 m		
MACES	J89	40.00370	35,000 ft	16	–
FIX	AWY-HI	-86.72300	10,668 m		
VHP	–	39.81470	35,000 ft	19	BRICKYARD
VOR	–	-86.36750	10,668 m		
BIGXX	J24	39.33100	35,000 ft	49	–
FIX	AWY-HI	-85.49740	10,668 m		
HICKI	J24	39.01860	35,000 ft	31	–
FIX	AWY-HI	-84.94800	10,668 m		
FLM	J24	38.64940	35,000 ft	37	FALMOUTH
VOR	AWY-HI	-84.31060	10,668 m		
OCASE	–	38.39970	35,000 ft	16	–
FIX	–	-84.18480	10,668 m		
TONIO	Q63	37.25420	35,000 ft	87	–
FIX	AWY-HI	-83.02990	10,668 m		
HAPKI	Q63	37.08210	35,000 ft	13	–
FIX	AWY-HI	-82.85070	10,668 m		
DOOGE	Q63	36.81080	30,700 ft	20	–
FIX	AWY-HI	-82.58730	9,357 m		
ALEAN	–	36.73190	20,700 ft	46	–
FIX	–	-81.62390	6,309 m		
KCLT	–	35.21380	0 ft	96	Charlotte Douglas Intl
APT	–	-80.94850	0 m		

KMSP

Region: UNITED STATES
Timezone: AMERICA/CHICAGO
Runways: 4
Elevation: 841 ft / 256 m
Location: 44.881900 -93.222000
Magnetic Var: 0.266 W

METAR

KMSP 190437Z 23013G24KT 10SM CLR 02/M14 A2980 RMK AO2 PRESFR T00221144

TAF

TAF AMD KMSP 190257Z 1903/2006 25011KT P6SM SCT150 FM190400 23016G26KT P6SM SCT250 WS020/27050KT FM190800 29012G2

Frequencies

DEP - 132.97 MHz - MINNEAPOLIS DEPARTURE
DEP - 125.75 MHz - MINNEAPOLIS DEPARTURE
DEP - 124.70 MHz - MINNEAPOLIS DEPARTURE
APP - 126.95 MHz - MINNEAPOLIS APPROACH
APP - 119.30 MHz - MINNEAPOLIS APPROACH
APP - 118.72 MHz - MINNEAPOLIS APPROACH
TWR - 126.70 MHz - MINNEAPOLIS TOWER
TWR - 123.95 MHz - MINNEAPOLIS TOWER
TWR - 123.67 MHz - MINNEAPOLIS TOWER
GND - 133.57 MHz - MINNEAPOLIS GROUND
GND - 127.92 MHz - MINNEAPOLIS GROUND
GND - 121.90 MHz - MINNEAPOLIS GROUND
GND - 121.80 MHz - MINNEAPOLIS GROUND
REC - 120.80 MHz - MINNEAPOLIS D-ATIS
REC - 135.35 MHz - MINNEAPOLIS D-ATIS
COM - 122.95 MHz - MINNEAPOLIS UNICOM
CLD - 133.20 MHz - MINNEAPOLIS CLEARANCE DELIVERY

Runways

Ident	Width	Length	Bearing (true) (mag)	Surface	Threshold Offset	Overrun Length
17	150 ft 46 m	8,008 ft 2,441 m	169.56 169.82	CONCRETE	0 ft 0 m	397 ft 121 m
35	150 ft 46 m	8,008 ft 2,441 m	349.56 349.83	CONCRETE	0 ft 0 m	394 ft 120 m
12L	150 ft 46 m	8,190 ft 2,496 m	121.42 121.68	CONCRETE	0 ft 0 m	397 ft 121 m
30R	150 ft 46 m	8,190 ft 2,496 m	301.44 301.70	CONCRETE	203 ft 62 m	394 ft 120 m
12R	200 ft 61 m	9,985 ft 3,043 m	121.42 121.69	CONCRETE	0 ft 0 m	1,194 ft 364 m
30L	200 ft 61 m	9,985 ft 3,043 m	301.44 301.71	CONCRETE	0 ft 0 m	781 ft 238 m
04	150 ft 46 m	11,118 ft 3,389 m	44.90 45.17	CONCRETE	1,660 ft 506 m	0 ft 0 m
22	150 ft 46 m	11,118 ft 3,389 m	224.92 225.19	CONCRETE	0 ft 0 m	410 ft 125 m

Approach Navaids

Runway	Type	Ident	Frequency	Range	Bearing (true) (mag)	Slope	Elevation
12L	DME	IPJL	110.70 MHz	18 nm 33 km	- -	-	813 ft 813 m
12R	DME	IHKZ	110.30 MHz	18 nm 33 km	- -	-	841 ft 841 m
17	DME	ITJZ	110.95 MHz	18 nm 33 km	- -	-	822 ft 822 m
30L	DME	IMSP	110.30 MHz	18 nm 33 km	- -	-	841 ft 841 m

Runway	Type	Ident	Frequency	Range	Bearing (true) (mag)	Slope	Elevation
30R	DME	IINN	110.70 MHz	18 nm 33 km	– –	–	813 ft 813 m
35	DME	IBMA	110.95 MHz	18 nm 33 km	– –	–	822 ft 822 m
12L	LOC-ILS	IPJL	110.70 MHz	18 nm 33 km	121.43 121.70	–	841 ft 841 m
12R	LOC-ILS	IHKZ	110.30 MHz	18 nm 33 km	121.44 121.71	–	841 ft 841 m
30L	LOC-ILS	IMSP	110.30 MHz	18 nm 33 km	301.44 301.71	–	841 ft 841 m
30R	LOC-ILS	IINN	110.70 MHz	18 nm 33 km	301.43 301.70	–	841 ft 841 m
35	LOC-ILS	IBMA	110.95 MHz	18 nm 33 km	349.56 349.83	–	841 ft 841 m
04	LOC-LOC	IAPL	109.30 MHz	18 nm 33 km	44.92 45.19	–	841 ft 841 m
17	LOC-LOC	ITJZ	110.95 MHz	18 nm 33 km	169.56 169.83	–	841 ft 841 m
22	LOC-LOC	ISIJ	110.50 MHz	18 nm 33 km	224.92 225.19	–	841 ft 841 m
12L	GS	IPJL	110.70 MHz	10 nm 19 km	121.43 121.70	3.00	841 ft 841 m
12R	GS	IHKZ	110.30 MHz	10 nm 19 km	121.44 121.71	3.00	841 ft 841 m
30L	GS	IMSP	110.30 MHz	10 nm 19 km	301.44 301.71	3.00	841 ft 841 m
30R	GS	IINN	110.70 MHz	10 nm 19 km	301.43 301.70	3.00	841 ft 841 m
35	GS	IBMA	110.95 MHz	10 nm 19 km	349.56 349.83	3.00	841 ft 841 m

KCLT

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

Elevation: 748 ft / 228 m
Location: 35.213800 -80.948500
Magnetic Var: 8.046 W

METAR

KCLT 190352Z 33013G26KT 10SM FEW110 06/M11 A3000 RMK AO2 PK WND 34030/0337 SLP173 T00611106

TAF

TAF KCLT 182320Z 1900/2006 32014G22KT P6SM OVC080 FM190700 32009KT P6SM SKC FM191700 24009KT P6SM SKC

Frequencies

REC - 121.15 MHz - ATIS (ARRIVAL)
COM - 122.95 MHz - UNICOM
GND - 121.80 MHz - CHARLOTTE GROUND
TWR - 133.35 MHz - CHARLOTTE TOWER
TWR - 118.10 MHz - CHARLOTTE TOWER
DEP - 128.32 MHz - CHARLOTTE DEPARTURE
DEP - 120.50 MHz - CHARLOTTE DEPARTURE
APP - 134.75 MHz - CHARLOTTE APPROACH
APP - 126.15 MHz - CHARLOTTE APPROACH
APP - 120.50 MHz - CHARLOTTE APPROACH

REC - 132.10 MHz - ATIS (DEPARTURE)
CLD - 127.15 MHz - CLEARANCE DELIVERY
GND - 121.90 MHz - CHARLOTTE GROUND
TWR - 126.40 MHz - CHARLOTTE TOWER
DEP - 134.75 MHz - CHARLOTTE DEPARTURE
DEP - 124.00 MHz - CHARLOTTE DEPARTURE
DEP - 120.05 MHz - CHARLOTTE DEPARTURE
APP - 128.32 MHz - CHARLOTTE APPROACH
APP - 124.00 MHz - CHARLOTTE APPROACH
APP - 120.05 MHz - CHARLOTTE APPROACH

Runways

Ident	Width	Length	Bearing (true) (mag)	Surface	Threshold Offset	Overrun Length
18R	151 ft 46 m	9,008 ft 2,746 m	175.98 184.03	CONCRETE	0 ft 0 m	0 ft 0 m
36L	151 ft 46 m	9,008 ft 2,746 m	355.98 4.03	CONCRETE	0 ft 0 m	0 ft 0 m
18C	151 ft 46 m	10,009 ft 3,051 m	175.98 184.03	CONCRETE	0 ft 0 m	0 ft 0 m
36C	151 ft 46 m	10,009 ft 3,051 m	355.98 4.03	CONCRETE	0 ft 0 m	0 ft 0 m
18L	151 ft 46 m	8,686 ft 2,648 m	176.00 184.04	ASPHALT	0 ft 0 m	0 ft 0 m
36R	151 ft 46 m	8,686 ft 2,648 m	356.00 4.04	ASPHALT	0 ft 0 m	0 ft 0 m
05	151 ft 46 m	7,510 ft 2,289 m	48.35 56.39	ASPHALT	0 ft 0 m	148 ft 45 m
23	151 ft 46 m	7,510 ft 2,289 m	228.36 236.40	ASPHALT	0 ft 0 m	148 ft 45 m

Approach Navaids

Runway	Type	Ident	Frequency	Range	Bearing (true) (mag)	Slope	Elevation
18R	DME	IRGS	110.15 MHz	18 nm 33 km	- -	-	749 ft 749 m
23	DME	IAPU	109.50 MHz	18 nm 33 km	- -	-	749 ft 749 m
36L	DME	IXUU	110.15 MHz	18 nm 33 km	- -	-	749 ft 749 m
36R	DME	IBQC	108.90 MHz	18 nm 33 km	- -	-	749 ft 749 m

Runway	Type	Ident	Frequency	Range	Bearing (true) (mag)	Slope	Elevation
05	LOC-ILS	ICLT	110.95 MHz	18 nm 33 km	48.37 56.42	-	749 ft 749 m
18C	LOC-ILS	IPEP	111.30 MHz	18 nm 33 km	175.98 184.03	-	748 ft 748 m
18L	LOC-ILS	IVKQ	110.35 MHz	18 nm 33 km	176.00 184.05	-	748 ft 748 m
18R	LOC-ILS	IRGS	110.15 MHz	18 nm 33 km	175.98 184.03	-	748 ft 748 m
23	LOC-ILS	IAPU	109.50 MHz	18 nm 33 km	228.35 236.40	-	748 ft 748 m
36C	LOC-ILS	IDQG	111.70 MHz	18 nm 33 km	355.98 4.03	-	748 ft 748 m
36L	LOC-ILS	IXUU	110.15 MHz	18 nm 33 km	355.98 4.03	-	748 ft 748 m
36R	LOC-ILS	IBQC	108.90 MHz	18 nm 33 km	356.00 4.05	-	748 ft 748 m
05	GS	ICLT	110.95 MHz	10 nm 19 km	48.35 56.40	3.00	748 ft 748 m
18C	GS	IPEP	111.30 MHz	10 nm 19 km	175.98 184.03	3.00	748 ft 748 m
18L	GS	IVKQ	110.35 MHz	10 nm 19 km	176.00 184.05	3.00	748 ft 748 m
18R	GS	IRGS	110.15 MHz	10 nm 19 km	175.98 184.03	3.00	748 ft 748 m
23	GS	IAPU	109.50 MHz	10 nm 19 km	228.35 236.40	3.00	748 ft 748 m
36C	GS	IDQG	111.70 MHz	10 nm 19 km	355.98 4.03	3.00	748 ft 748 m
36L	GS	IXUU	110.15 MHz	10 nm 19 km	355.98 4.03	3.00	748 ft 748 m
36R	GS	IBQC	108.90 MHz	10 nm 19 km	356.00 4.05	3.00	748 ft 748 m