

FEDERAL AVIATION ADMINISTRATION  
FLIGHT STANDARDS SERVICE  
RNAV (GPS) STANDARD INSTRUMENT APPROACH PROCEDURE  
TITLE 14 CFR PART 97.33

Bearings, headings, courses, tracks and radials are magnetic. Elevations and altitudes are in feet, MSL, except HAT, HAA, TCH, and RA. Altitudes are minimum altitudes unless otherwise indicated.  
Ceilings are in feet above airport elevation. Distances are in nautical miles unless otherwise indicated, except visibilities which are in statute miles or feet RVR.

<u>AIRPORT ID</u> 48K	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 17	<u>ORIGINAL/AMENDMENT</u> ORIG	<u>CITY</u> NESS CITY	<u>STATE</u> KS		
<u>AIRPORT ELEVATION</u> 2322	<u>TDZE</u> 2322	<u>SUPERSEDED</u>	<u>ORIGINAL/AMENDMENT</u> NONE	<u>DATED</u>	<u>MAG VAR</u> 8E	<u>EPOCH YEAR</u> 1990
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u>	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<u>CANCEL/SUSPEND</u>		

**TAA**

<u>FROM</u>	<u>FIX TYPE</u>	<u>TO</u>	<u>FIX TYPE</u>	<u>ALTITUDE</u>
1. 082/30 CW 262/30	NOPT	NESBY	IF/IAF	4400
2. 262/30 CW 082/30		NESBY	IF/IAF	4400

**TERMINAL ROUTES**

<u>FROM</u>	<u>FIX TYPE</u>	<u>TO</u>	<u>FIX TYPE</u>	<u>LEG TYPE</u>	<u>FO/FB</u>	<u>RNP</u>	<u>COURSE</u>	<u>DISTANCE</u>	<u>ALTITUDE</u>
NESBY	IF/IAF	KAAYS		TF	FB	1.00	171.91	5.00	4000
KAAYS	FAF	RW17	MAP	TF	FO	0.30	171.91	5.14	
RW17	MAP	2653 MSL		CA			171.91		
2653 MSL		HABAT		DF	FO	1.00			4400

**MISSED APPROACH**

**MAP:**

LPV: DA  
LNAV/VNAV: DA  
LNAV: RW17

**MISSED APPROACH INSTRUCTIONS:**

CLIMB TO 4400 DIRECT HABAT AND HOLD.

**ALTERNATE MISSED APPROACH INSTRUCTIONS:**



PROFILE:

1. PT

SIDE OF COURSE

OUTBOUND

FT WITHIN

MILES OF

(IAF)

2. HOLD N NESBY, RT, 171.91 INBOUND, 4400 FT. IN LIEU OF PT (IAF), MAX 6400.

3. FAF: 171.91FAF: KAAYSDIST FAF TO MAP: 5.14DIST FAF TO THLD: 5.14

4. MIN ALT: NESBY 4400, KAAYS 4000

5. DIST TO THLD FROM OM:MM:IM:150 HAT:331 HAT: 0.91GS ANT:

6. MIN GP INCPT: 4000GP ALT AT PFAF : KAAYS 4000OM:MM:IM:

7. GP ANGLE: 3.0034:1: IS CLEAR20:1: IS CLEARTCH: 40.0

8. MSA FROM:

PBN REQUIREMENTS NOTE:

RNP APCH - GPS.

NOTES:

CHART NOTE: BARO-VNAV NA.

ADDITIONAL FLIGHT DATA:

CHART NOTE: USE HAYES REGIONAL ALTIMETER SETTING, WHEN NOT RECEIVED, USE HILL CITY ALTIMETER SETTING AND INCREASE LPV DA TO 2659 FEET, INCREASE LNAV/VNAV DA TO 2758 FEET, AND INCREASE ALL MDAS 20 FEET.  
CHART HAYES RGNL AWOS-3PT  
HOLD S, RT, 351.91 INBOUND.  
FAS OBST: 2689 AAO 383311N/0995518W.  
WAAS CHANNEL # 77944  
REFERENCE PATH ID: W17A  
LTP HAE: 681.7 M

MINIMUMS:

TAKEOFF: SEE FAA FORM 8260-15A FOR THIS AIRPORT

ALTERNATE: NA ☒

CATEGORY:	A			B			C			D			E		
FINAL TYPE	DA/MDA	VIS	HAT/HAA	DA/MDA	VIS	HAT/HAA	DA/MDA	VIS	HAT/HAA	DA/MDA	VIS	HAT/HAA	DA/MDA	VIS	HAT/HAA
LPV DA	2653	1	331	2653	1	331		NA			NA				
LNAV/VNAV DA	2752	1 1/4	430	2752	1 1/4	430		NA			NA				
LNAV MDA	3080	1	758	3080	1 1/4	758		NA			NA				
CIRCLING	3080	1	758	3140	1 1/4	818		NA			NA				

CHANGES - REASONS

ORIGINAL PROCEDURE



AIRPORT ID  
48K

PROCEDURE NAME  
RNAV (GPS) RWY 17

ORIGINAL/AMENDMENT  
ORIG

CITY  
NESS CITY

STATE  
KS

COORDINATED WITH:

A4A ☐ ALPA ☒ AOPA ☒ APA ☐ HAI ☐ NBAA ☒ OTHER: KZC, ZDV, AMGR

FLIGHT CHECKED BY

MICHAEL S MILLER

*Digitally signed by*  
**CASIMIR L TABAKA**  
Jan 13, 2023

OFFICE

FPO

DATE

01/12/2023

DEVELOPED BY

APRIL SARMENTO

*Digitally signed by*  
**APRIL T SARMENTO**

OFFICE

AJV-A432

DATE

10/12/2022

APPROVED BY

JOHNNIE BAKER

Nov 10, 2022

*Digitally signed by*  
**CASIMIR L TABAKA**  
Nov 18, 2022

OFFICE

AJV-A430

DATE

TITLE  
MANAGER

QUALITY  
20  
CHECKED

FAS DATA BLOCK INFORMATION

<u>DATA FIELD</u>	<u>DATA</u>
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	48K
RUNWAY	RW17
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W17A
LTP/FTP LATITUDE	382845.2920N
LTP/FTP LONGITUDE	0995432.8685W
LTP/FTP ELLIPSOIDAL HEIGHT	+06817
FPAP LATITUDE	382716.1005N
FPAP LONGITUDE	0995432.6840W
THRESHOLD CROSSING HEIGHT (TCH)	00040.0
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	03.00
COURSE WIDTH AT THRESHOLD	106.75
LENGTH OFFSET	1528
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	50.0
CRC REMAINDER	57B5552D

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K3
LTP ORTHOMETRIC HEIGHT	+07076
FPAP ORTHOMETRIC HEIGHT	+07076

FEDERAL AVIATION ADMINISTRATION  
FLIGHT STANDARDS SERVICE  
STANDARD INSTRUMENT APPROACH PROCEDURE DATA RECORD

<u>AIRPORT ID</u> 48K	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 17	<u>AMDT NO.</u> ORIG	<u>CITY</u> NESS CITY	<u>STATE</u> KS	<u>AIRPORT ELEVATION</u> 2322	<u>FACILITY</u> RNAV
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PART A: OBSTRUCTION DATA SEGMENTS

STRAIGHT-IN AREA

FROM  
082/30 CW 262/30

TO  
NESBY

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>	<u>HAT</u>	<u>HMAS</u>							<u>OBSTRUCTION</u>	<u>COORDINATES</u>	<u>ELEV MSL</u>	<u>HORZ</u>	<u>VERT</u>	<u>AC</u>	<u>ROC</u>	<u>OCS</u>	<u>CG</u>	<u>CGTA</u>	<u>ADJUSTMENTS</u>	<u>MIN ALT</u>
												TOWER (20-002575)	383632.00N/0994212.00W	3343	500	50	5D	1000					4400
												TERRAIN	383851.00N/1003200.00W	2818 (2800)								AS1500	4300

COMPUTATIONS

ALT   KIAS   KTAS   HAA   VKTW   TR   BA   DTA   COURSE CHANGE   DVEB   VEB OCS   RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

STRAIGHT-IN AREA

FROM  
262/30 CW 082/30

TO  
NESBY

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>	<u>HAT</u>	<u>HMAS</u>							<u>OBSTRUCTION</u>	<u>COORDINATES</u>	<u>ELEV MSL</u>	<u>HORZ</u>	<u>VERT</u>	<u>AC</u>	<u>ROC</u>	<u>OCS</u>	<u>CG</u>	<u>CGTA</u>	<u>ADJUSTMENTS</u>	<u>MIN ALT</u>
												TOWER (20-002575)	383632.00N/0994212.00W	3343	500	50	5D	1000					4400
												TERRAIN	383824.00N/1003230.00W	2824 (2800)								AS1500	4300

COMPUTATIONS

ALT   KIAS   KTAS   HAA   VKTW   TR   BA   DTA   COURSE CHANGE   DVEB   VEB OCS   RF CENTER FIX/DISTANCE

SEGMENT REMARKS:



INTERMEDIATE

FROM  
NESBY (IF/IAF)

TO  
KAAYS

RNP	DISTANCE 5.00	PAT	MAP	HAT			HMAS					
OBSTRUCTION	COORDINATES		ELEV MSL	HORZ	VERT	AC	ROC	OCS	CG	CGTA	ADJUSTMENTS	MIN ALT
TOWER (20-000866)	383815.00N/0995620.00W		2826	500	50	5D	500				AT600	4000
TERRAIN	383806.00N/0995706.00W		2516 (2500)								AS1500	4000

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

FINAL: LPV

FROM  
KAAYS

TO  
DA

RNP	DISTANCE 5.14	PAT	MAP DA	HAT 331			HMAS					
OBSTRUCTION	COORDINATES		ELEV MSL	HORZ	VERT	AC	ROC	OCS	CG	CGTA	ADJUSTMENTS	MIN ALT
								ASC			RA131	2653

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:



FINAL: LNAV/VNAV

FROM

KAAYS

TO

DA

RNP	DISTANCE	PAT	MAP	HAT			HMAS					
	5.14		DA		430							
OBSTRUCTION	COORDINATES		ELEV MSL	HORZ	VERT	AC	ROC	OCS	CG	CGTA	ADJUSTMENTS	MIN ALT
TREE	382927.26N/0995347.65W		2459	50	20	2C	142				AC20 RA131	2752

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:

FINAL: LNAV

FROM

KAAYS

TO

RW17

RNP	DISTANCE	PAT	MAP	HAT			HMAS					
	5.14		RW17		758							
OBSTRUCTION	COORDINATES		ELEV MSL	HORZ	VERT	AC	ROC	OCS	CG	CGTA	ADJUSTMENTS	MIN ALT
AAO	383311.29N/0995518.21W		2689	50	20	2C	250				RA131	3080

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT REMARKS:



HOLD-IN-LIEU OF PT

FROM

NESBY

TO

P-6

RNP	DISTANCE	PAT P-6	MAP	HAT			HMAS					
OBSTRUCTION	COORDINATES		ELEV MSL	HORZ	VERT	AC	ROC	OCS	CG	CGTA	ADJUSTMENTS	MIN ALT
TOWER (20-001292)	384337.08N/0995301.17W		2891	50	20	2C	1000				AT509	4400
TERRAIN	383827.00N/1000003.00W		2568 (2600)								AS1500	4100

COMPUTATIONS	ALT	KIAS	KTAS	HAA	VKTW	TR	BA	DTA	COURSE CHANGE	DVEB	VEB OCS	RF CENTER FIX/DISTANCE
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SEGMENT REMARKS:

MISSED APPROACH : LPV

FROM

DA

TO

HABAT

RNP	DISTANCE	PAT	MAP	HAT			HMAS 2357					
OBSTRUCTION	COORDINATES		ELEV MSL	HORZ	VERT	AC	ROC	OCS	CG	CGTA	ADJUSTMENTS	MIN ALT
								ASC				4400
AAO	382003.32N/0995320.44W		2549	50	20	2C	1000					3600
TERRAIN	382924.00N/0995436.00W		2342 (2300)								AS1500	3800

COMPUTATIONS	ALT	KIAS	KTAS	HAA	VKTW	TR	BA	DTA	COURSE CHANGE	DVEB	VEB OCS	RF CENTER FIX/DISTANCE
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SEGMENT REMARKS:





MISSED APPROACH : LNAV/VNAV

FROM

DA

TO

HABAT

RNP	DISTANCE	PAT	MAP	HAT			HMAS 2479					
OBSTRUCTION	COORDINATES		ELEV MSL	HORZ	VERT	AC	ROC	OCS	CG	CGTA	ADJUSTMENTS	MIN ALT
								ASC				4400
AAO	382003.32N/0995320.44W		2549	50	20	2C	1000					3600
TERRAIN	382924.00N/0995436.00W		2342 (2300)								AS1500	3800

COMPUTATIONS

ALT	KIAS	KTAS	HAA	VKTW	TR	BA	DTA	COURSE CHANGE	DVEB	VEB OCS	RF CENTER FIX/DISTANCE
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SEGMENT REMARKS:

MISSED APPROACH : LNAV

FROM

RW17

TO

HABAT

RNP	DISTANCE	PAT	MAP	HAT			HMAS 2849					
OBSTRUCTION	COORDINATES		ELEV MSL	HORZ	VERT	AC	ROC	OCS	CG	CGTA	ADJUSTMENTS	MIN ALT
								ASC				4400
AAO	382003.32N/0995320.44W		2549	50	20	2C	1000					3600
TERRAIN	382924.00N/0995436.00W		2342 (2300)								AS1500	3800

COMPUTATIONS

ALT	KIAS	KTAS	HAA	VKTW	TR	BA	DTA	COURSE CHANGE	DVEB	VEB OCS	RF CENTER FIX/DISTANCE
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SEGMENT REMARKS:



CIRCLING

☐ ALL CATS

☒ CAT A

☒ CAT B

☐ CAT C

☐ CAT D

☐ CAT E

☐ NOT AUTHORIZED

OBSTRUCTION	COORDINATES	RADIUS	HAA	ELEV MSL	HORZ	VERT	AC	ROC	OCS	ADJUSTMENTS	MIN ALT
CATEGORY A											
TOWER (20-061773)	382756.40N/0995253.98W	1.33	758	2586	20	3	1A	300		SI	3080
CATEGORY B											
TOWER (20-001717)	382751.00N/0995215.00W	1.89	818	2696	50	20	2C	300		RA131	3140

CIRCLING REMARKS:

CENTERRADIUS

REMARKS:

NOTES/EXPLANATIONS FROM PROCEDURE SEGMENTS:

PART B: SUPPLEMENTAL DATA

COMMUNICATIONS WITH  
ZKC ARTCC

<u>WX SERVICE</u> AWOS-3PT	<u>LOCATION</u> KHYS	<u>HRS OPERATION</u> 24	<u>ALTIMETER SOURCE</u> KHYS	<u>DISTANCE</u> 37.16	<u>SERVICE-A</u> Y	<u>ADJUSTMENTS</u> 131
<u>BACK-UP WX SERVICE</u> ASOS	<u>LOCATION</u> KHLC	<u>HRS OPERATION</u> 24	<u>ALTIMETER SOURCE</u> KHLC	<u>DISTANCE</u> 54.10	<u>SERVICE-A</u> Y	<u>ADJUSTMENTS</u> 137

WX REMARKS:  
RASS PRESSURE PATTERNS THE SAME  
K48K 2322, KHYS 1998, RA=130.8  
KHLC 2238, RA=136.2

<u>PRIMARY NAVAID</u>	<u>MONITOR POINT</u> MOCC	<u>HRS OPERATION</u>	<u>CAT</u>
<u>APPROACH AND RUNWAY LIGHTING SYSTEM</u>		<u>RUNWAY MARKINGS</u>	<u>RUNWAY VISUAL RANGE</u>
RW17 - MIRL (PCL), REIL (PCL), PAPI-2L (PCL)		NPI-G	
RW35 - MIRL (PCL), REIL (PCL), PAPI-2L (PCL)		NPI-G	

<u>GLIDESLOPE ANGLE</u> 3.00	<u>ELEV RWY THRESHOLD</u> 2321.6	<u>TCH</u> 40.0	<u>ELEV GS ANTENNA</u>	<u>DISTANCE FROM RWY</u>	<u>VGSI ANGLE</u> 3.00	<u>TCH</u> 40.0
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FINAL APPROACH COURSE AIMING

RUNWAY THRESHOLD	<input checked="" type="checkbox"/>	FT FROM THRESHOLD	DISPLACED THRESHOLD DISTANCE
ON CENTERLINE	<input checked="" type="checkbox"/>	FT FROM CENTERLINE	

CRITICAL TEMPERATURES

<u>CRITICAL LOW</u> -19C	<u>CRITICAL HIGH</u> +54C	<u>ACT</u> -19C	<u>APT ISA</u> +10.4C
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CRITICAL TEMPERATURE REMARKS:  
AVERAGE COLD TEMPERATURE DERIVED FROM STANDARD -30C ISA DEVIATION.  
CRITICAL LOW TEMPERATURE BASED ON ACT.  
DESCENT RATE (FPM): STANDARD TEMP 732 HIGH TEMP 1159.

"VISUAL PORTION OF FINAL" PENETRATIONS

**HELICOPTER 'VISUAL PORTION OF FINAL' PENETRATIONS**

and/or  
**5280-FT "PROCEED VFR" SEGMENT LEVEL SURFACE AREA PENETRATIONS**

<b><u>PENETRATIONS REMARKS:</u></b>

**PART C: GENERAL REMARKS:**  
VDP NOT ESTABLISHED - REMOTE PRIMARY ALTIMETER.  
PRECIPITOUS TERRAIN EVALUATION COMPLETED.  
100 FT VEGETATION USED  
ORDER 8260.3, CHAPTER 2, NEW CIRCLING CRITERIA APPLIED.



<u>AIRPORT ID</u> 48K	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 17	<u>AMDT NO.</u> ORIG	<u>CITY</u> NESS CITY	<u>STATE</u> KS	<u>AIRPORT ELEVATION</u> 2322	<u>FACILITY</u> RNAV
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PART D: AIRSPACE

DOCKET # 20-ACE-2

ALL DISTANCES TO 1/100NM; ELEVATION TO NEAREST 100 FEET; COORDINATES TO 1/100 SECOND; DEG TO 1/100 DEGREE

DISTANCE FROM	MAP	TO 1000FT POINT	3.57
WIDTH OF	FINAL	SEGMENT AT 1000FT POINT	1.20
TRUE COURSE OF	FINAL	SEGMENT CONTAINING 1000FT POINT	179.91
HIGH TERRAIN IN	FINAL	SEGMENT CONTAINING 1000FT POINT	2500
DISTANCE FROM	MAP	TO 1500FT POINT	5.14
WIDTH OF	FINAL	SEGMENT AT 1500FT POINT	2.14
TRUE COURSE OF	FINAL	SEGMENT CONTAINING 1500FT POINT	179.91
HIGH TERRAIN IN	FINAL	SEGMENT CONTAINING 1500FT POINT	2500

THRESHOLD COORDINATES (IF STR-IN)

382845.29N/0995432.87W

ARP COORDINATES

382825.53N/0995432.83W

RUNWAY APCH END AND DIST FURTHEST FROM ARP

RUNWAY 35 DISTANCE 0.33 NM

FAF COORDINATES

383354.27N/0995433.51W

FIX NAME COORDINATES

IF/IAF NESBY: 383854.57N/0995434.13W

REMARKS

QUALITY  
20  
CHECKED

FAA Form 8260-9 / (11/16) Supersedes Previous Edition

Electronic Version

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PART E: PREPARED BY

<u>NAME</u> APRIL SARMENTO	<u>OFFICE</u> AJV-A432	<u>DATE</u> 10/12/2022	<u>TITLE</u> AERONAUTICAL INFORMATION SPECIALIST
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