

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</u> PHILIP BILLARD MUNI	<u>AIRPORT ID</u> KTOP	<u>PROCEDURE NAME</u> RNAV (GPS) RWY 36	<u>ORIGINAL/AMENDMENT</u> 1B	<u>CITY</u> TOPEKA	<u>STATE</u> KS
<u>AIRPORT ELEVATION</u> 881	<u>TDZE</u> 881	<u>SUPERSEDED</u> RNAV (GPS) RWY 36	<u>ORIGINAL/AMENDMENT</u> 1A	<u>DATED</u> 10/16/2014	<u>MAG VAR</u> 5E
<u>FACILITY</u> RNAV	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u>	<u>REQUIRED EFFECTIVE DATE</u> ROUTINE	<u>CANCEL/SUSPEND</u>	<u>EPOCH YEAR</u> 2000

TAA

<u>FROM</u>	<u>FIX TYPE</u>	<u>TO</u>	<u>FIX TYPE</u>	<u>ALTITUDE</u>
1. 267/30 CW 087/30	NOPT	WOSMO	IF/IAF	3600
2. 087/30 CW 177/30		TUCJA	IAF	3600
3. 177/30 CW 267/30		ZUDKI	IAF	3600

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>
TUCJA	IAF	WOSMO	NOPT	TF	FB	1.00	086.56	8.00	3600
ZUDKI	IAF	WOSMO	NOPT	TF	FB	1.00	266.78	8.00	3600
WOSMO	IF/IAF	VECUL		TF	FB	1.00	356.67	5.92	2600
VECUL	FAF	OYUPU/2.10 NM TO RW36		TF	FB	0.30	356.67	3.18	
OYUPU/2.10 NM TO RW36		RW36	MAP	TF	FO	0.30	356.67	2.10	
RW36	MAP	1254 MSL		CA					
1254 MSL		GUKEC		DF	FO	1.00			3600

MISSED APPROACH

MAP:

LPV: DA
 LNAV/VNAV: DA
 LNAV: RW36

MISSED APPROACH INSTRUCTIONS:

CLIMB TO 3600 DIRECT GUKEC AND HOLD.

ALTERNATE MISSED APPROACH INSTRUCTIONS:



PROFILE:

1. PT

SIDE OF COURSE

OUTBOUND

FT WITHIN

MILES OF (IAF)
2. HOLD S WOSMO, RT, 356.67 INBOUND, 3600 FT. IN LIEU OF PT (IAF), MAX 6000.
3. FAC: 356.67FAF: VECULDIST FAF TO MAP: 5.28DIST FAF TO THLD: 5.28
4. MIN ALT: WOSMO 3600, VECUL 2600, OYUPU/2.10 NM TO RW36 1580*
5. DIST TO THLD FROM OM:MM:IM:150 HAT:373 HAT: 1.05GS ANT:MM:IM:
6. MIN GP INCPT: 2600GP ALT AT FAF : VECUL 2600OM:
7. GP ANGLE: 3.0034:1: IS NOT CLEAR20:1: IS CLEARTCH: 37.4
8. MSA FROM:

PBN REQUIREMENTS NOTE:

RNP APCH

NOTES:

CHART NOTE: RWY 36 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED.
CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -19C OR ABOVE 54C.
*LNAV ONLY

ADDITIONAL FLIGHT DATA:

CHART CIRCLING ICON.
WAAS CHANNEL #99634
REFERENCE PATH ID: W36A
CHART FAS OBST: 1150 TOWER 390144N/0953718W.
HOLD N, RT, 176.68 INBOUND
LTP HAE: 237.1 M

MINIMUMS:

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

ALTERNATE: NA

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 STANDARD

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	1254	1 1/4	373	1254	1 1/4	373	1254	1 1/4	373		NA				
LNAV/VNAV DA	1394	1 3/4	513	1394	1 3/4	513	1394	1 3/4	513		NA				
LNAV MDA	1460	1	579	1460	1	579	1460	1 5/8	579		NA				
CIRCLING	1460	1	579	1460	1	579	1600	2	719		NA				



CHANGES - REASONS

- 1. DELETED CHART NOTE: DME/DME RNP-0.3 NA - 8260.19H, PARA 1-1-5F(14), REMOVED THE REQUIREMENT FOR THIS NOTE.
- 2. ADDED PBN EQUIPMENT REQUIREMENTS NOTE "RNP APCH" - EQUIPMENT REQUIREMENTS NOTE APPLIED PER 8260.58A, CHANGE 1.
- 3. DELETED CHART NOTE "CIRCLING TO RWY 4/22 NA - RWY HAS BEEN PERMANENTLY CLOSED.
- 4. CHANGED CHART NOTE FROM "HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NA" TO "RWY 36 HELICOPTER VISIBILITY REDUCTION BELOW 3/4 SM NOT AUTHORIZED" - UPDATED NOTE NOW IDENTIFIES RWY.
- 5. DELETED CHART NOTE "WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE TOPEKA RGNL ALTIMETER SETTING AND INCREASE ALL DA 45 FEET AND ALL MDA 60 FEET. INCREASE LPV ALL CATS VISIBILITY 1/8 MILE. INCREASE LNAV/VNAV ALL CATS AND LNAV AND CIRCLING CAT C VISIBILITY 1/4 MILE" - NOTE REMOVED AND MADE CONTINGENCY NOTE ON BACK OF -9.
- 6. CHANGED NOTE CHANGED FROM "FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -19C(-2F) OR ABOVE 54C(130F)" TO "FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -19C OR ABOVE 54C. - UPDATE REMOVED REQUIREMENT FOR FAHRENHEIT TEMPERATURES TO BE PUBLISHED.
- 7. ADDED 20:1 CLEAR TO LINE 7 - THE STATUS OF BOTH 20:1 AND 34:1 SURFACES NEEDS TO BE SHOWN.
- 8. ADDED MAXIMUM HOLDING 6000 AT WOSMO - UPDATED FORMS REQUIRED TO SHOW MAXIMUM HOLDING ALTITUDES AT THE HOLD-IN-LIEU.
- 9. DELETED CHART NOTE "BARO-VNAV NA WHEN USING TOPEKA RGNL ALTIMETER SETTING - NOTE REMOVED TO BACK OF -9 FORM AND MADE CONTINGENCY NOTE.
- 10. CHANGES FROM T-NOTAM 8/9141 AND P-NOTAM FOR AMDT 1A INCORPORATED INTO FORM - IAW 8260-19H PARA 8-3-4C(3).

PDF EDIT 6/11/18: JAMES LAFFERTY, REMOVED LPV MISSED APPROACH PENETRATING OBSTACLE FROM BOTH LNAV/VNAV AND LNAV MISSED APPROACH SECTIONS.



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

<u>AIRPORT</u>	<u>AIRPORT ID</u>	<u>PROCEDURE NAME</u>	<u>AMDT NO.</u>	<u>CITY</u>	<u>STATE</u>	<u>AIRPORT ELEVATION</u>	<u>FACILITY</u>
PHILIP BILLARD MUNI	KTOP	RNAV (GPS) RWY 36	1B	TOPEKA	KS	881	RNAV

PART A: OBSTRUCTION DATA SEGMENTS

STRAIGHT-IN AREA

FROM

267/30 CW 087/30

TO

WOSMO

RNP

DISTANCE

PAT

MAP

HAT

HMAS

<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>
1.TOWER (20-001146)	385346.00N/0951029.00W	2048	500	50	5D	1000				AT552	3600
2.TERRAIN	384903.00N/0961330.00W	1608 (1600)								AS1500	3100

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT
REMARKS:

LEFT BASE AREA

FROM

087/30 CW 177/30

TO

TUCJA

RNP

DISTANCE

PAT

MAP

HAT

HMAS

<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>
3.TOWER (20-000125)	390022.00N/0960258.00W	2549	50	50	2B	1000				AT51	3600
4.TERRAIN	384915.00N/0961330.00W	1608 (1600)								AS1500	3100

COMPUTATIONS

ALT

KIAS

KTAS

HAA

VKTW

TR

BA

DTA

COURSE CHANGE

DVEB

VEB OCS

RF CENTER FIX/DISTANCE

SEGMENT
REMARKS:



RIGHT BASE AREA

FROM

177/30 CW 267/30

TO

ZUDKI

<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>
1.TOWER (20-001146)	385346.00N/0951029.00W	2048	500	50	5D	1000				AT552	3600
5.TERRAIN	391812.00N/0954157.00W	1224 (1200)								AS1500	2700

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

INITIAL

FROM

TUCJA

TO

WOSMO

<u>RNP</u>	<u>DISTANCE</u>	<u>PAT</u>	<u>MAP</u>	<u>HAT</u>			<u>HMAS</u>				
	8.00										
<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>
6.AAO	385045.00N/0954903.00W	1401				1000				AT1199	3600
7.TERRAIN	385045.00N/0954903.00W	1201 (1200)								AS1500	2700

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



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<u>GLIDESLOPE ANGLE</u>	<u>ELEV RWY THRESHOLD</u>	<u>TCH</u>	<u>ELEV GS ANTENNA</u>	<u>DISTANCE FROM RWY</u>	<u>VGSI ANGLE</u>	<u>TCH</u>
3.00	880.7	37.4			3.00	37.4

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

<u>CRITICAL LOW</u>	<u>CRITICAL HIGH</u>	<u>ACT</u>	<u>APT ISA</u>
-19C	+54C	-19C	+13.25C

AVERAGE COLD TEMPERATURE DERIVED FROM STANDARD 13C ISA DEVIATION.
CRITICAL LOW TEMPERATURE BASED ON ACT.
DESCENT RATE (FPM): STANDARD TEMP 824 HIGH TEMP 1121.

Final Type	LPV, LNAV/VNAV, LNAV
34:1	
1020 TREE (20-035536) 390255.00N/0953723.72W (6.26)	993 TREE (20-031631) 390303.50N/0953732.74W (3.93)
933 TREE (20-039981) 390323.37N/0953728.92W (3.29)	988 TREE (20-037668) 390304.34N/0953733.01W (1.41)

VDP NOT ESTABLISHED - LESS THAN 1/2 MILE FROM STEPDOWN.
PRECIPITOUS TERRAIN EVALUATION COMPLETED.
AVERAGE VEGETATION HEIGHT OF 35 FT. USED.

CAT D CRITERIA NOT ADDED TO THIS ABBREVIATED AMENDMENT.
ORDER 8260.3, VOLUME 1, CHAPTER 2, NEW CIRCLING CRITERIA APPLIED.



PART D: AIRSPACE

DOCKET #

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

DISTANCE FROM	THLD	TO 1000FT POINT	3.71
WIDTH OF	FINAL	SEGMENT AT 1000FT POINT	1.20
TRUE COURSE OF	FINAL	SEGMENT CONTAINING 1000FT POINT	001.67
HIGH TERRAIN IN	FINAL	SEGMENT CONTAINING 1000FT POINT	1066
DISTANCE FROM	THLD	TO 1500FT POINT	5.28
WIDTH OF	FINAL	SEGMENT AT 1500FT POINT	2.14
TRUE COURSE OF	FINAL	SEGMENT CONTAINING 1500FT POINT	0001.67
HIGH TERRAIN IN	FINAL	SEGMENT CONTAINING 1500FT POINT	1066

THRESHOLD
COORDINATES
(IF STR-IN) 390341.82N/0953728.78W

ARP COORDINATES 390407.76N/0953720.55W

RUNWAY APCH END
AND DIST FURTHEST
FROM ARP RUNWAY 13 DISTANCE 0.42 NM

FAF
COORDINATES 385824.71N/0953740.62W

FIX NAME
COORDINATES

REMARKS
NO ADDITIONAL AIRSPACE REQUIRED.
TAA 30 NM RADIUS FROM WOSMO 385229.33N/0953753.87W, TUCJA 385242.87N/0954808.08W,
ZUDKI 385214.87N/0952739.33W



<u>AIRPORT</u>	<u>AIRPORT ID</u>	<u>PROCEDURE NAME</u>	<u>AMDT NO.</u>	<u>CITY</u>	<u>STATE</u>	<u>AIRPORT ELEVATION</u>	<u>FACILITY</u>
PHILIP BILLARD MUNI	KTOP	RNAV (GPS) RWY 36	1B	TOPEKA	KS	881	RNAV

PART E: PREPARED BY

<u>NAME</u>	<u>OFFICE</u>	<u>DATE</u>	<u>TITLE</u>
JAMES LAFFERTY	AJV-5433	06/11/2018	AERONAUTICAL INFORMATION SPECIALIST

