

**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><b>AIRPORT</b></u> ESTHERVILLE MUNI	<u><b>AIRPORT ID</b></u> KEST	<u><b>PROCEDURE NAME</b></u> RNAV (GPS) RWY 16	<u><b>ORIGINAL/AMENDMENT</b></u> 1B	<u><b>CITY</b></u> ESTHERVILLE	<u><b>STATE</b></u> IA
<u><b>AIRPORT ELEVATION</b></u> 1319	<u><b>TDZE</b></u> 1319	<u><b>SUPERSEDED</b></u> RNAV (GPS) RWY 16	<u><b>ORIGINAL/AMENDMENT</b></u> 1A	<u><b>DATED</b></u> 11/08/2018	<u><b>MAG VAR</b></u> 1E
<u><b>FACILITY</b></u> RNAV	<u><b>COORDINATES OF FACILITIES</b></u>	<u><b>ACTUAL EFFECTIVE DATE</b></u> 6 DECEMBER 2018	<u><b>REQUIRED EFFECTIVE DATE</b></u> ROUTINE	<u><b>CANCEL/SUSPEND</b></u>	<u><b>EPOCH YEAR</b></u> 2020

**TAA**

<u><b>FROM</b></u>	<u><b>FIX TYPE</b></u>	<u><b>TO</b></u>	<u><b>FIX TYPE</b></u>	<u><b>ALTITUDE</b></u>
1. 078/30 CW 259/30	NOPT	UYJOR	IF/IAF	3400
2. 259/30 CW 349/30		QUKJI	IAF	3400
3. 349/30 CW 078/30		OXESY	IAF	3400

**TERMINAL ROUTES**

<u><b>FROM</b></u>	<u><b>FIX TYPE</b></u>	<u><b>TO</b></u>	<u><b>FIX TYPE</b></u>	<u><b>LEG TYPE</b></u>	<u><b>FO/FB</b></u>	<u><b>RNP</b></u>	<u><b>COURSE</b></u>	<u><b>DISTANCE</b></u>	<u><b>ALTITUDE</b></u>
OXESY	IAF	UYJOR	NOPT	TF	FB	1.00	078.48	5.00	3400
QUKJI	IAF	UYJOR	NOPT	TF	FB	1.00	258.64	5.00	3400
UYJOR	IF/IAF	XUMYI		TF	FB	1.00	168.56	6.10	2900
XUMYI	FAF	RW16	MAP	TF	FO	0.30	168.58	4.81	
RW16	MAP	1569 MSL		CA			168.58		
1569 MSL		OHYEQ		DF	FO	1.00			3400

**MISSED APPROACH**

**MAP:**

LPV: DA  
 LNAV/VNAV: DA  
 LNAV: RW16

**MISSED APPROACH INSTRUCTIONS:**

CLIMB TO 3400 DIRECT OHYEQ AND HOLD.

**ALTERNATE MISSED APPROACH INSTRUCTIONS:**



PROFILE:

1. PT

SIDE OF COURSE

OUTBOUND

FT WITHIN

MILES OF (IAF)

2. HOLD N UYJOR, RT, 168.56 INBOUND, 3400 FT. IN LIEU OF PT (IAF), MAX 6000.

3. FAC: 168.58FAF: XUMYIDIST FAF TO MAP: 4.81DIST FAF TO THLD: 4.81

4. MIN ALT: UYJOR 3400, XUMYI 2900

5. DIST TO THLD FROM OM:MM:IM:150 HAT:250 HAT: 0.69GS ANT:

6. MIN GP INCPT: 2900GP ALT AT FAF : XUMYI 2900OM:MM:IM:

7. GP ANGLE: 3.0034:1: IS CLEAR20:1: IS CLEARTCH: 30.0

8. MSA FROM:

PBN REQUIREMENTS NOTE:

RNP APCH.

NOTES:

CHART NOTE: CIRCLING NA TO RWYS 6 AND 24.  
CHART NOTE: BARO-VNAV AND VDP NA WHEN USING JACKSON ALTIMETER SETTING.  
CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -17°C OR ABOVE 54°C.  
CHART PROFILE NOTE: VGSI AND RNAV GLIDEPATH NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}).  
CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE JACKSON ALTIMETER SETTING AND INCREASE ALL DA/MDA 60 FEET.

ADDITIONAL FLIGHT DATA:

CHART CIRCLING ICON.  
CHART VDP AT 1.14 NM TO RW16\*  
\*LNAV ONLY  
WAAS CHANNEL #40104  
REFERENCE PATH ID: W16A  
CHART FAS OBST: 1421 TREE 432732N/0944451W.  
HOLD S, RT, 348.62 INBOUND  
LTP HAE: 373 M

MINIMUMS:

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

ALTERNATE: NA ☐ STANDARD - NA WHEN LOCAL WEATHER NOT AVAILABLE.

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	1569	1	250	1569	1	250		NA			NA				
LNAV/VNAV DA	1608	1	289	1608	1	289		NA			NA				
LNAV MDA	1720	1	401	1720	1	401		NA			NA				
CIRCLING	1720	1	401	1840	1	521		NA			NA				

CHANGES - REASONS

1. LTP/FTP ELLIPSOIDAL HEIGHT CHANGED FROM "+00373" TO "+03730" - FIXED SIAP ERROR PER ARINC 424-20.



COORDINATED WITH:

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

FLIGHT CHECKED BY

FLIGHT INSPECTION REVIEW NOT REQUIRED - PROCESSED IAW AIRCRAFT OPERATIONS GROUP (AJW-33) MEMO, Dec 22, 2017.

OFFICE

DATE

Digitally signed by

**MARK D ADAMS**

Oct 23, 2018

DEVELOPED BY

Digitally signed by

VICTOR BOONE

**VICTOR C BOONE**

Oct 16, 2018

OFFICE

AJV-5412

DATE

10/16/2018

APPROVED BY

Digitally signed by

LONNIE EVERHART

**MARK D ADAMS**

Oct 19, 2018

OFFICE

AJV-5410

DATE

TITLE

MANAGER



FAS DATA BLOCK INFORMATION

DATA FIELD	DATA
OPERATION TYPE	0
SBAS SERVICE PROVIDER IDENTIFIER	0
AIRPORT IDENTIFIER	KEST
RUNWAY	RW16
APPROACH PERFORMANCE DESIGNATOR	0
ROUTE INDICATOR	
REFERENCE PATH DATA SELECTOR	0
REFERENCE PATH IDENTIFIER (APPROACH ID)	W16A
LTP/FTP LATITUDE	432453.0175N
LTP/FTP LONGITUDE	0944453.7020W
LTP/FTP ELLIPSOIDAL HEIGHT	+03730
FPAP LATITUDE	432325.3685N
FPAP LONGITUDE	0944431.6230W
THRESHOLD CROSSING HEIGHT (TCH)	00030.0
TCH UNITS SELECTOR (METERS OR FEET USED)	F
GLIDEPATH ANGLE (GPA)	03.00
COURSE WIDTH AT THRESHOLD	106.75
LENGTH OFFSET	1288
HORIZONTAL ALERT LIMIT (HAL)	40.0
VERTICAL ALERT LIMIT (VAL)	50.0
CRC REMAINDER	5DCB52D0

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE	K3
LTP ORTHOMETRIC HEIGHT	+04013
FPAP ORTHOMETRIC HEIGHT	+04013

