

| RNAV - STANDARD<br>INSTRUMENT APPROACH PROCEDURE<br>TITLE 14 CFR PART 97.33                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |        |                            |         |                                                                   |     |         | Bearings, headings, courses, 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 in feet RVR. |       |                                                                                                                                                                                                                                                            |        |     |         |        |                             |         |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|----------------------------|---------|-------------------------------------------------------------------|-----|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|-----|---------|--------|-----------------------------|---------|--|
| TERMINAL ROUTES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |        |                            |         |                                                                   |     |         | MISSED APPROACH                                                                                                                                                                                                                                                                                                                                                      |       |                                                                                                                                                                                                                                                            |        |     |         |        |                             |         |  |
| FROM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |        | TO                         |         | COURSE AND DISTANCE                                               |     |         | ALTITUDE                                                                                                                                                                                                                                                                                                                                                             |       |                                                                                                                                                                                                                                                            |        |     |         |        |                             |         |  |
| ZIVIM (IF/AF)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |        | ZARAD (FB)                 |         | 359.48 / 7.30                                                     |     |         | 2100                                                                                                                                                                                                                                                                                                                                                                 |       | LPV: DA<br>LNAV/VNAV: DA<br>LNAV: RW36<br><br>CLIMB TO 2400 DIRECT XOWNU AND ON 352.29 TRACK TO DRBOB AND HOLD.                                                                                                                                            |        |     |         |        |                             |         |  |
| ZARAD (FAF)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |        | YIRUN/1.50 NM TO RW36 (FB) |         | 359.49 / 3.90                                                     |     |         |                                                                                                                                                                                                                                                                                                                                                                      |       |                                                                                                                                                                                                                                                            |        |     |         |        |                             |         |  |
| YIRUN/1.50 NM TO RW36                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |        | RW36 (MAP) (FO)            |         | 359.49 / 1.50                                                     |     |         |                                                                                                                                                                                                                                                                                                                                                                      |       | ADDITIONAL FLIGHT DATA:<br>HOLD S, LT, 353.49 INBOUND.<br>CHART FAS OBST: 439 TREE 313404N/0944303W<br>CHART: 563 TOWER 312925N/0944310W<br>DISTANCE TO THLD FROM 200 HATH: 0.46 NM.<br>WAAS CHANNEL # 93528<br>REFERENCE PATH ID: W36A<br>LTP HAE: 72.5 M |        |     |         |        |                             |         |  |
| RW36 (MAP)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |        | 527 MSL                    |         | 359.49                                                            |     |         |                                                                                                                                                                                                                                                                                                                                                                      |       |                                                                                                                                                                                                                                                            |        |     |         |        |                             |         |  |
| 527 MSL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |        | XOWNU (FB)                 |         |                                                                   |     |         |                                                                                                                                                                                                                                                                                                                                                                      |       |                                                                                                                                                                                                                                                            |        |     |         |        |                             |         |  |
| XOWNU                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |        | DRBOB (FO)                 |         | 352.29 / 8.33                                                     |     |         | 2400                                                                                                                                                                                                                                                                                                                                                                 |       |                                                                                                                                                                                                                                                            |        |     |         |        |                             |         |  |
| 1. PT <u>      </u> SIDE OF COURSE <u>      </u> OUTBOUND <u>      </u> FT WITHIN <u>      </u> MILES OF <u>      </u> (IAF)<br>2. HOLD S ZIVIM, RT, 359.48 INBOUND, 2400 FT. IN LIEU OF PT (IAF)<br>3. FAC: <u>359.49</u> FAF: <u>ZARAD</u> DIST FAF TO MAP: <u>5.40</u> THLD: <u>5.40</u><br>4. MIN. ALT: ZIVIM 2400, ZARAD 2100, YIRUN/1.50 NM TO RW36 840*<br>5. DIST TO THLD FROM OM: <u>      </u> MM: <u>      </u> IM: <u>150</u> HAT: <u>100</u> HAT: <u>      </u> GS ANT: <u>      </u><br>6. MIN GS INCPT: <u>2100</u> GS ALT AT: ZARAD 2100 OM: <u>      </u> MM: <u>      </u> IM: <u>      </u><br>7. GS ANGLE: <u>3.00</u> TCH: 53.3 34:1 IS CLEAR<br>8. MSA FROM: <u>      </u> |        |                            |         |                                                                   |     |         |                                                                                                                                                                                                                                                                                                                                                                      |       |                                                                                                                                                                                                                                                            |        |     |         |        |                             |         |  |
| MAG VAR: 5E EPOCH YEAR: 1995                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |        |                            |         |                                                                   |     |         |                                                                                                                                                                                                                                                                                                                                                                      |       |                                                                                                                                                                                                                                                            |        |     |         |        |                             |         |  |
| MINIMUMS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |        |                            |         |                                                                   |     |         |                                                                                                                                                                                                                                                                                                                                                                      |       |                                                                                                                                                                                                                                                            |        |     |         |        |                             |         |  |
| TAKEOFF: SEE FAA FORM 8260-15A FOR THIS AIRPORT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |        |                            |         |                                                                   |     |         | ALTERNATE: N A                                                                                                                                                                                                                                                                                                                                                       |       | STANDARD @                                                                                                                                                                                                                                                 |        |     |         |        |                             |         |  |
| CATEGORY =====>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | A      |                            |         | B                                                                 |     |         | C                                                                                                                                                                                                                                                                                                                                                                    |       |                                                                                                                                                                                                                                                            | D      |     |         | E      |                             |         |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | DH/MDA | VIS                        | HAT/HAA | DH/MDA                                                            | VIS | HAT/HAA | DH/MDA                                                                                                                                                                                                                                                                                                                                                               | VIS   | HAT/HAA                                                                                                                                                                                                                                                    | DH/MDA | VIS | HAT/HAA | DH/MDA | VIS                         | HAT/HAA |  |
| LPV DA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 527    | 1/2                        | 200     | 527                                                               | 1/2 | 200     | 527                                                                                                                                                                                                                                                                                                                                                                  | 1/2   | 200                                                                                                                                                                                                                                                        |        | NA  |         |        |                             |         |  |
| LNAV/VNAV DA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 609    | 1/2                        | 282     | 609                                                               | 1/2 | 282     | 609                                                                                                                                                                                                                                                                                                                                                                  | 1/2   | 282                                                                                                                                                                                                                                                        |        | NA  |         |        |                             |         |  |
| LNAV MDA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 700    | 1/2                        | 373     | 700                                                               | 1/2 | 373     | 700                                                                                                                                                                                                                                                                                                                                                                  | 5/8   | 373                                                                                                                                                                                                                                                        |        | NA  |         |        |                             |         |  |
| CIRCLING                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 860    | 1                          | 505     | 860                                                               | 1   | 505     | 860                                                                                                                                                                                                                                                                                                                                                                  | 1 1/2 | 505                                                                                                                                                                                                                                                        |        | NA  |         |        |                             |         |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |        |                            |         |                                                                   |     |         |                                                                                                                                                                                                                                                                                                                                                                      |       |                                                                                                                                                                                                                                                            |        |     |         |        |                             |         |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |        |                            |         |                                                                   |     |         |                                                                                                                                                                                                                                                                                                                                                                      |       |                                                                                                                                                                                                                                                            |        |     |         |        |                             |         |  |
| NOTES:<br>CHART NOTE: BARO-VNAV NA WHEN USING LUFKIN ALTIMETER SETTING.<br>CHART NOTE: FOR UNCOMPENSATED BARO-VNAV SYSTEMS, LNAV/VNAV NA BELOW -15C (5F) OR ABOVE 54C (130F).<br>CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE LUFKIN ALTIMETER SETTING AND INCREASE ALL DA 56 FEET AND ALL MDA 60 FEET; INCREASE LNAV/VNAV ALL CATS VISIBILITY 1/8 MILE, INCREASE (SEE FORM 8260-10)<br>@ NA WHEN LOCAL WEATHER NOT AVAILABLE                                                                                                                                                                                                                                                      |        |                            |         |                                                                   |     |         |                                                                                                                                                                                                                                                                                                                                                                      |       |                                                                                                                                                                                                                                                            |        |     |         |        |                             |         |  |
| CITY AND STATE<br>NACOGDOCHES, TX                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |        |                            |         | ELEVATION: 355 THRE: 327<br>AIRPORT NAME:<br>A L MANGHAM JR. RGNL |     |         | FACILITY IDENTIFIER:<br>RNAV                                                                                                                                                                                                                                                                                                                                         |       | PROCEDURE NO./AMDT NO./EFFECTIVE DATE:<br>RNAV (GPS) RWY 36, ORIG<br>31 MAY 2012                                                                                                                                                                           |        |     |         |        | SUP:<br>AMDT: NONE<br>DATED |         |  |

US DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION  
RNAV - STANDARD  
INSTRUMENT APPROACH PROCEDURE - TITLE 14 CFR PART 97.33

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NOTES, (CONT.):

LNAV CAT C VISIBILITY 1/8 MILE.

CHART NOTE: DME/DME RNP-0.3 NA.

\*LNAV ONLY

TAA

|    | FROM                    | TO                               | ALT  |
|----|-------------------------|----------------------------------|------|
| 1. | 269/30 CW 089/30 (NOPT) | ZIVIM (1 <sup>5</sup> /IAF) (FB) | 2400 |
| 2. | 089/30 CW 269/30        | ZIVIM (1 <sup>7</sup> /IAF) (FO) | 2400 |

QUALITY  
2  
CHECKED

CITY AND STATE  
NACOGDOCHES, TX

ELEVATION: 355      THRE: 327  
AIRPORT NAME:  
A L MANGHAM JR. RGNL

FACILITY  
IDENTIFIER:  
RNAV

PROCEDURE NO./ AMDT NO./EFFECTIVE DATE:  
RNAV (GPS) RWY 36, ORIG  
31 MAY 2012

SUP:  
AMDT: NONE  
DATED:

RNAV STANDARD INSTRUMENT APPROACH PROCEDURE  
FLIGHT STANDARDS SERVICE - FAR PART 97.33

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FAS DATA BLOCK INFORMATIONDATA FIELDDATA

OPERATION TYPE 0  
SBAS SERVICE PROVIDER IDENTIFIER 0  
AIRPORT IDENTIFIER KOCH  
RUNWAY RW36  
APPROACH PERFORMANCE DESIGNATOR 0  
ROUTE INDICATOR  
REFERENCE PATH DATA SELECTOR 0  
REFERENCE PATH IDENTIFIER (APPROACH ID) W36A  
LTP/FTP LATITUDE 313415.3060N  
LTP/FTP LONGITUDE 0944238.7280W  
LTP/FTP ELLIPSOIDAL HEIGHT +00725  
FPAP LATITUDE 313544.3300N  
FPAP LONGITUDE 0944230.5600W  
THRESHOLD CROSSING HEIGHT (TCH) 00053.3  
TCH UNITS SELECTOR (METERS OR FEET USED) F  
GLIDEPATH ANGLE (GPA) 03.00  
COURSE WIDTH AT THRESHOLD 106.75  
LENGTH OFFSET 1224  
HORIZONTAL ALERT LIMIT (HAL) 40.0  
VERTICAL ALERT LIMIT (VAL) 35.0

CRC REMAINDER

93A08110

ADDITIONAL PATH POINT RECORD INFORMATION

ICAO CODE K4  
LTP ORTHOMETRIC HEIGHT +00995  
FPAP ORTHOMETRIC HEIGHT +00995

QUALITY  
2  
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|                                   |                                                                        |                                 |                                                                                  |            |
|-----------------------------------|------------------------------------------------------------------------|---------------------------------|----------------------------------------------------------------------------------|------------|
| CITY AND STATE<br>NACOGDOCHES, TX | ELEVATION: 355      THRE: 327<br>AIRPORT NAME:<br>A L MANGHAM JR. RGNL | FACILITY<br>IDENTIFIER:<br>RNAV | PROCEDURE NO./AMDT NO./EFFECTIVE DATE:<br>RNAV (GPS) RWY 36, ORIG<br>31 MAY 2012 | SUP:       |
|                                   |                                                                        |                                 |                                                                                  | AMDT: NONE |
|                                   |                                                                        |                                 |                                                                                  | DATED:     |

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FLIGHT STANDARDS SERVICE - FAR PART 97.33**

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[illegible]

QUALITY  
1  
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|                                   |                                                                          |                                     |                                                                                   |            |
|-----------------------------------|--------------------------------------------------------------------------|-------------------------------------|-----------------------------------------------------------------------------------|------------|
| CITY AND STATE<br>NACOGDOCHES, TX | ELEVATION: 355<br>THRE: 327<br>AIRPORT NAME:<br><br>A L MANGHAM JR. RGNL | FACILITY<br>IDENTIFIER:<br><br>RNAV | PROCEDURE NO./ AMDT NO./EFFECTIVE DATE:<br>RNAV (GPS) RWY 36, ORIG<br>31 MAY 2012 | SUP:       |
|                                   |                                                                          |                                     |                                                                                   | AMDT: NONE |
|                                   |                                                                          |                                     |                                                                                   | DATED:     |