

**FEDERAL AVIATION ADMINISTRATION**  
**FLIGHT STANDARDS SERVICE**  
**ILS STANDARD INSTRUMENT APPROACH PROCEDURE**  
**TITLE 14 CFR PART 97.29**

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>		<u>AIRPORT ID</u>	<u>PROCEDURE NAME</u>	<u>ORIGINAL/AMENDMENT</u>	<u>CITY</u>	<u>STATE</u>
MERCED RGNL/MACREADY FIELD		KMCE	ILS OR LOC RWY 30	15	MERCED	CA
<u>AIRPORT ELEVATION</u>	<u>TDZE</u>	<u>SUPERSEDED</u>	<u>ORIGINAL/AMENDMENT</u>	<u>DATED</u>	<u>MAG VAR</u>	<u>EPOCH YEAR</u>
155	155	ILS OR LOC RWY 30	14F	07/18/2019	15E	2000
<u>FACILITY</u>	<u>COORDINATES OF FACILITIES</u>	<u>ACTUAL EFFECTIVE DATE</u>	<u>REQUIRED EFFECTIVE DATE</u>	<u>CANCEL/SUSPEND</u>		
I-MCE		15 AUGUST 2019	ROUTINE			

**TERMINAL ROUTES**

<b><u>FROM</u></b>	<b><u>FIX TYPE</u></b>	<b><u>TO</u></b>	<b><u>FIX TYPE</u></b>	<b><u>LEG TYPE</u></b>	<b><u>FO/FB</u></b>	<b><u>RNP</u></b>	<b><u>COURSE</u></b>	<b><u>DISTANCE</u></b>	<b><u>ALTITUDE</u></b>
PXN VORTAC		TEENY INT/PXN 25.42 DME					025.17	25.42	4300
TURLO INT		HYP VOR/DME					174.99	12.80	2900
HYP VOR/DME		COOPE INT/I-MCE 6.73 DME					229.49	1.55	2000
FRA VORTAC		ELFIE INT/FRA 25.46 DME					254.90	25.46	4900
TEENY INT/PXN 25.42 DME	IAF	CHOWA INT/I-MCE 13.65 DME	NOPT				025.17	6.99 (PXN R-025)	2000
ELFIE INT/FRA 25.46 DME	IAF	CHOWA INT/I-MCE 13.65 DME	NOPT				254.90	10.00 (FRA R-255)	2000
CHOWA INT/I-MCE 13.65 DME	IF	COOPE INT/I-MCE 6.73 DME					303.50	6.92 (I-MCE)	2000

**MISSED APPROACH**

**MAP:**

ILS: DA  
 LOC: 5.63 NM AFTER COOPE INT/I-MCE 6.73 DME OR AT I-MCE 1.10 DME

**MISSED APPROACH INSTRUCTIONS:**

CLIMB TO 1000 THEN CLIMBING LEFT TURN TO 2000 DIRECT HYP VOR/DME AND HOLD.

**ALTERNATE MISSED APPROACH INSTRUCTIONS (DO NOT CHART):**

CLIMB TO 1000 THEN CLIMBING LEFT TURN TO 3000 ON HEADING 120 AND FRA VORTAC R-255 TO CHOWA INT AND HOLD.



PROFILE:

1. PT R    SIDE OF COURSE    123.50       OUTBOUND    2000       FT WITHIN    10       MILES OF    COOPE INT (IAF)
2.
3. FAC:    303.50       FAF: COOPE INT/I-MCE 6.73       DIST FAF TO MAP: 5.63       DIST FAF TO THLD: 5.63  
DME
4. MIN ALT:    COOPE INT/I-MCE 6.73 DME 2000, RIPME/I-MCE 3.90 DME 640\*
5. DIST TO THLD FROM OM:       MM:       IM:       150 HAT:       GS ANT: 1002
6. MIN GS INCPT: 2000       GS ALT AT FAF : COOPE INT/I-MCE 6.73 DME 2000       OM:       MM:       IM:
7. GP ANGLE:    3.00       34:1:       20:1:       TCH: 52.7
8. MSA FROM:    HYP VOR/DME 080-170 3300, 170-260 2200, 260-350 3000, 350-080 5600

EQUIPMENT REQUIREMENTS NOTES:

NOTES:

CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVAL ON PXN VORTAC AIRWAY RADIALS 328 CW 061.  
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT TURLO ON V23 NORTHWEST BOUND.  
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVAL ON FRA VORTAC AIRWAY RADIALS 202 CW 302.  
CHART NOTE: FOR INOPERATIVE ALS, INCREASE S-LOC VISIBILITY TO 1 SM.

ADDITIONAL FLIGHT DATA:

HOLD E, LT, 290.37 INBOUND.  
CHART VDP AT 1.95 DME\*  
DISTANCE VDP TO THLD 0.85 NM  
\* LOC ONLY  
CHART FAS OBST: 244 TREE 371624N/1202945W.  
CHART IN PLANVIEW: ALTERNATE MA HOLDING, HOLD SE CHOWA INT, RT, 303.62 INBOUND.

MINIMUMS:

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

ALTERNATE: NA 

X

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
S-ILS 30	355	1/2	200	355	1/2	200	355	1/2	200	355	1/2	200			
S-LOC 30	640	3/4	485	640	3/4	485	640	1	485	640	1	485			
RIPME FIX MINIMUMS															
S-LOC 30	500	3/4	345	500	3/4	345	500	3/4	345	500	3/4	345			



**CHANGES - REASONS**

- 1. CHANGED TERMINAL ROUTE TURLO INT TO HYP VOR/DME COURSE FROM 175.00 TO 174.99 AND INCREASED ALTITUDE FROM 2300 FT TO 2900 FT. - REVISED SURVEY OF HYP VOR/DME AND NEW CONTROLLING OBSTACLE.
- 2. CHANGED TERMINAL ROUTE HYP VOR/DME TO COOPE INT COURSE/DISTANCE FROM 238.74/1.64 TO 229.49/1.55. - FIX COOPE MOVED 0.27 NM.
- 3. REMOVED TERMINAL ROUTE CZQ VORTAC TO CHOWA INT. - CZQ VORTAC BEING DECOMMISSIONED VIA VOR MON PROGRAM.
- 4. REMOVED TERMINAL ROUTE PXN VORTAC TO CHOWA INT. - SEGMENT BROKEN UP INTO FEEDER AND IAF SEGMENTS.
- 5. CHANGED TERMINAL ROUTE CHOWA INT TO COOPE INT COURSE/DISTANCE FROM 303.49/10.48 TO 303.50/6.92. - FIXES MOVED AS REQUESTED BY ATC/FPT.
- 6. ADDED TERMINAL ROUTE FEEDER FROM PXN VORTAC TO TEENY INT. - AS REQUESTED BY ATC.
- 7. ADDED TERMINAL ROUTE FROM FRA VORTAC TO ELFIE INT. - AS REQUESTED BY ATC.
- 8. ADDED TERMINAL ROUTE FROM TEENY INT TO CHOWA INT. - AS REQUESTED BY ATC.
- 9. ADDED TERMINAL ROUTE FROM ELFIE INT TO CHOWA INT. - AS REQUESTED BY ATC.
- 10. IN MISSED APPROACH, CHANGED LOC MAP DESCRIPTION FROM 5.63 NM AFTER COOPE INT/I-MCE 6.46 DME OR AT I-MCE 1.11 DME TO 5.63 NM AFTER COOPE INT/I-MCE 6.73 DME OR AT I-MCE 1.10. - COOPE INT MOVED .27 NM.
- 11. ADDED ALTERNATE MISSED APPROACH. - AS PER ATC REQUEST.
- 12. ON LINE 1 OF PROFILE SECTION, CHANGED COURSE FROM 123.49 TO 123.50. - NEW SURVEY REFINED LOC ALIGNMENT.
- 13. ON LINE 3 OF PROFILE SECTION, CHANGED FAC FROM 303.49 TO 303.50. - NEW SURVEY REFINED LOC ALIGNMENT.
- 14. ON LINE 7 OF PROFILE SECTION, CHANGED TCH FROM 52.4 TO 52.7. - NEW AIRPORT DATA USED.
- 15. REMOVED ALTERNATE MINIMUMS NOTE: "# @ NA WHEN CLASS E AIRSPACE NOT IN EFFECT." - NOTE NO LONGER APPLICABLE.
- 16. MARKED ALTERNATE MINIMUMS AS NA. - INCONSISTENT MONITORING OF LOCALIZER NEGATES ALTERNATE AVAILABILITY.
- 17. REMOVED CHART NOTE: WHEN LOCAL ALTIMETER SETTING NOT RECEIVED, USE CASTLE ALTIMETER SETTING AND INCREASE ALL DA/MDA 20 FEET. - PER 8260.19H, WHEN WX DATA TRANSMITS TO WMSCR, BACKUP ALTIMETER SOURCE CALCULATED FOR CONTINGENCY PURPOSES AND DOCUMENTED IN REMARKS SECTION OF 8260-9 FORM.
- 18. CHANGED CHART NOTE FROM "FOR INOPERATIVE MALSR INCREASE S-LOC 30 CAT D VISIBILITY TO 1" TO "FOR INOPERATIVE ALS, INCREASE S-LOC VISIBILITY TO 1 SM." - CALCULATED USING AJV-VALIDATED VISICHECK TOOL AND MOST CURRENT VISIBILITY TABLES.
- 19. REMOVED CHART TDZ ELEV: 155 AND CHART APT ELEV: 155 FROM ADDITIONAL FLIGHT DATA. - NOTE NOT NECESSARY, WILL STILL BE CHARTED.
- 20. CHANGED ADDITIONAL FLIGHT DATA NOTE FROM, "CHART FAS OBST: 230 TREE 371622N/1203009W" TO "CHART FAS OBST: 244 TREE 371624N/1202945W." - NEW STEPDOWN SEGMENT IN FINAL WITH NEW CONTROLLING OBSTACLE.
- 21. ADDED DISTANCE TO VDP FROM THLD 0.85 NM, CHART VDP AT 1.95 DME\* AND \*LOC ONLY TO ADDITIONAL FLIGHT DATA. - VDP NOW APPLIES.
- 22. ADDED ADDITIONAL FLIGHT DATA NOTE CHART IN PLANVIEW: ALTERNATE MA HOLDING, HOLD SE CHOWA INT, RT, 304.00 INBOUND. - ALTERNATE MA ESTABLISHED AS PER ATC/FPT REQUEST.
- 23. ADDED NON-SDF LINE OF MINIMA FOR S-LOC 30 WITH MDA/HAT OF 1100/945, CAT A/B VISIBILITY OF 3/4 SM, AND CAT C/D VISIBILITY OF 2 SM. - SDF "RIPME" ADDED TO ACHIEVE LOWEST POSSIBLE MINIMA; NON-SDF MINIMA ESTABLISHED FOR USE IF/WHEN SDF IS NOT RECEIVED.
- 24. CHANGED S-LOC 30 MDA/HAT FROM 480/325 TO S-LOC 30 PRIMARY STEPDOWN MDA/HAT OF 500/345. - STEPDOWN SEGMENT ADDED TO ACHIEVE LOWEST POSSIBLE MDA; NEW CONTROLLING OBSTACLE.
- 25. CHANGED S-LOC 30 CAT C VISIBILITY FROM 1/2 SM TO 5/8 SM AND CHANGED S-LOC 30 CAT D VISIBILITY FROM 3/4 SM TO 5/8 SM. - NEW CONTROLLING OBSTACLE RAISED MDA/HAT 20 FT; VISIBILITIES CALCULATED USING AJV-VALIDATED VISICHECK TOOL AND MOST CURRENT VISIBILITY TABLES.
- 26. REMOVED CHART NOTE: AUTOPILOT COUPLED APPROACH NA BELOW 585. - LIMITATION ESTABLISHED IN 2009 WHEN GS WAS A NULL REFERENCE TYPE; 7/18/16 SYSTEM RECONFIGURED TO CAPTURE EFFECT, RECONFIG REPORT REMOVED LIMITATION.
- 27. ADDED CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVAL ON PXN VORTAC AIRWAY RADIALS 328 CW 061. - IAW 8260.3D, TURNS ONTO FEEDER SEGMENT MAY NOT EXCEED 120 DEGREES.
- 28. ADDED CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVALS AT TURLO ON V23 NORTHWEST BOUND. - IAW 8260.3D, TURNS ONTO FEEDER SEGMENT MAY NOT EXCEED 120 DEGREES.
- 29. ADDED CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVAL ON FRA VORTAC AIRWAY RADIALS 202 CW 302. - IAW 8260.3D, TURNS ONTO FEEDER SEGMENT MAY NOT EXCEED 120 DEGREES.

**COORDINATED WITH:**

**A4A** ☐ **ALPA** ☒ **AOPA** ☒ **APA** ☐ **HAI** ☐ **NBAA** ☒ **OTHER:** ZOA, NORCAL APP CON, AMGR, ATA

**FLIGHT CHECKED BY**

THOMAS E MOLOKIE

*Digitally signed by*

**DEVELOPED BY**

JOSHUA LEETE

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May 16, 2019

**APPROVED BY**

MARLON ROBINSON

*Digitally signed by*

**CASIMIR L TABAKA**

May 17, 2019

*Digitally signed by*

**CASIMIR L TABAKA**

Jun 28, 2019

**OFFICE**

FICO

**DATE**

6/19/19

**OFFICE**

AJV-A422

**DATE**

12/14/2018

**OFFICE**

AJV-A420

**DATE**

**TITLE**  
MANAGER

QUALITY  
4  
CHECKED