

**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><b>AIRPORT ID</b></u><br>KSNA      | <u><b>PROCEDURE NAME</b></u><br>ILS OR LOC RWY 20R<br>ILS RWY 20R (SA CAT I) | <u><b>ORIGINAL/AMENDMENT</b></u><br>14A                                  | <u><b>CITY</b></u><br>SANTA ANA                  | <u><b>STATE</b></u><br>CA         |                              |                                  |
| <u><b>AIRPORT ELEVATION</b></u><br>56 | <u><b>TDZE</b></u><br>54                                                     | <u><b>SUPERSEDED</b></u><br>ILS OR LOC RWY 20R<br>ILS RWY 20R (SA CAT I) | <u><b>ORIGINAL/AMENDMENT</b></u><br>14           | <u><b>DATED</b></u><br>12/07/2017 | <u><b>MAG VAR</b></u><br>12E | <u><b>EPOCH YEAR</b></u><br>2015 |
| <u><b>FACILITY</b></u><br>I-SNA       | <u><b>COORDINATES OF FACILITIES</b></u>                                      | <u><b>ACTUAL EFFECTIVE DATE</b></u><br>3 NOVEMBER 2022                   | <u><b>REQUIRED EFFECTIVE DATE</b></u><br>ROUTINE | <u><b>CANCEL/SUSPEND</b></u>      |                              |                                  |

**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> |
|---------------------------|------------------------|---------------------------|------------------------|------------------------|---------------------|-------------------|----------------------|------------------------|------------------------|
| SLI VORTAC                |                        | SAGER INT/I-SNA 17.32 DME |                        |                        |                     |                   | 049.22               | 18.94                  | 4000                   |
| SAGER INT/I-SNA 17.32 DME | IF/IAF                 | SNAKE INT/I-SNA 12.39 DME |                        |                        |                     |                   | 195.92               | 4.93 (I-SNA)           | 3400                   |
| SNAKE INT/I-SNA 12.39 DME |                        | HUKEM INT/I-SNA 9.96 DME  |                        |                        |                     |                   | 195.92               | 2.43 (I-SNA)           | 2800                   |
| HUKEM INT/I-SNA 9.96 DME  |                        | LEMON INT/I-SNA 7.76 DME  |                        |                        |                     |                   | 195.92               | 2.20 (I-SNA)           | 2200                   |

**MISSED APPROACH**

**MAP:**

ILS: DA  
 LOC: 6.62 NM AFTER LEMON INT/I-SNA 7.76 DME OR AT I-SNA 1.14 DME

**MISSED APPROACH INSTRUCTIONS:**

CLIMB TO 3000 ON I-SNA LOCALIZER S COURSE (196) TO MINOE INT/I-SNA 10.88 DME.

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

CLIMB TO 1000 THEN CLIMBING RIGHT TURN TO 3000 DIRECT SLI VORTAC AND HOLD.

**PROFILE:**

- PT SIDE OF COURSE OUTBOUND FT WITHIN MILES OF (IAF)
- HOLD N SAGER, RT, 195.92 INBOUND, 3500 FT. IN LIEU OF PT (IAF), MAX 4500.
- FAC: 195.92 FAF: LEMON INT/I-SNA 7.76 DME DIST FAF TO MAP: 6.62 DIST FAF TO THLD: 6.62
- MIN ALT: SAGER INT/I-SNA 17.32 DME 3500, SNAKE INT/I-SNA 12.39 DME 3400, HUKEM INT/I-SNA 9.96 DME 2800, LEMON INT/I-SNA 7.76 DME 2200, DYERS INT/I-SNA 4.11 DME 1040
- DIST TO THLD FROM OM: MM: IM: 150 HAT: 167 HAT: 2467 GS ANT: 887
- MIN GS INCPT: 2200 GS ALT AT PFAF: LEMON INT/I-SNA 7.76 DME 2200 OM: MM: IM:
- GS ANGLE: 3.00 34:1: 20:1: TCH: 50.5
- MSA FROM: SLI VORTAC 050-140 7000, 140-230 2900, 230-320 4400, 320-050 7700



**EQUIPMENT REQUIREMENTS NOTES:****NOTES:**

SA CAT I ILS - SPECIAL AIRCREW AND AIRCRAFT CERTIFICATION REQUIRED; S-ILS 20R: CAT A, B, C, D, RA 201, RVR 1400, HAT 167, DA 221 MSL.  
SA CAT I CHART NOTE: REQUIRES SPECIFIC OPSPEC, MSPEC, OR LOA APPROVAL.  
CHART PROFILE NOTE: VGSI AND ILS GLIDEPATH NOT COINCIDENT (VGSI ANGLE {ANGLE}/TCH {FEET}).  
CHART PLANVIEW NOTE: PROCEDURE NA FOR ARRIVAL ON SLI VORTAC AIRWAY RADIALS 058 CW 080.  
SA CAT I CHART NOTE: PROCEDURE NA WHEN TOWER CLOSED.  
CHART NOTE: \*RVR 1800 AUTHORIZED WITH USE OF FD OR AP OR HUD TO DA.  
CAT I CHART NOTE: CIRCLING RWY 20L NA AT NIGHT.  
CHART NOTE: FOR INOPERATIVE ALS, INCREASE DYERS FIX MINIMUMS S-LOC 20R CAT C AND D VISIBILITY TO RVR 6000.

**ADDITIONAL FLIGHT DATA:**

CHART CIRCLING ICON.  
FAS OBST: 1103 AAO 334651N/1174657W, 332 AAO 334421N/1175017W.  
CHART IN PLANVIEW: ALTERNATE MA HOLDING, HOLD SE SLI VORTAC, LT, 300.00 INBOUND.  
CHART FAS OBST: 196 TRANSMISSION\_LINE (06-236320) 334248N/1175104W.  
CHART VDP AT 2.24 DME  
DISTANCE VDP TO THLD 1.10 NM.  
CHART IN PLANVIEW: SLI VORTAC.

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

**ALTERNATE:** NA ☐ ILS: STANDARD - NA WHEN LOCAL WEATHER NOT AVAILABLE, NA WHEN CONTROL TOWER CLOSED; LOC: CAT A, B 1000-2, CAT C 1000-3, CAT D 1200-3, NA WHEN LOCAL WEATHER NOT AVAILABLE, NA WHEN CONTROL TOWER CLOSED.

| <u>CATEGORY:</u>                                        | <u>A</u>      |            |                | <u>B</u>      |            |                | <u>C</u>      |            |                | <u>D</u>      |            |                | <u>E</u>      |            |                |
|---------------------------------------------------------|---------------|------------|----------------|---------------|------------|----------------|---------------|------------|----------------|---------------|------------|----------------|---------------|------------|----------------|
| <u>FINAL TYPE</u>                                       | <u>DA/MDA</u> | <u>VIS</u> | <u>HAT/HAA</u> | <u>DA/MDA</u> | <u>VIS</u> | <u>HAT/HAA</u> | <u>DA/MDA</u> | <u>VIS</u> | <u>HAT/HAA</u> | <u>DA/MDA</u> | <u>VIS</u> | <u>HAT/HAA</u> | <u>DA/MDA</u> | <u>VIS</u> | <u>HAT/HAA</u> |
| S-ILS 20R*                                              | 255           | 2400       | 201            | 255           | 2400       | 201            | 255           | 2400       | 201            | 255           | 2400       | 201            |               |            |                |
| S-LOC 20R                                               | 1040          | 4000       | 986            | 1040          | 5500       | 986            | 1040          | 2 1/2      | 986            | 1040          | 2 1/2      | 986            |               |            |                |
| CIRCLING                                                | 1040          | 1 1/4      | 984            | 1040          | 1 1/2      | 984            | 1040          | 3          | 984            | 1160          | 3          | 1104           |               |            |                |
| DYERS FIX MINIMUMS (DUAL VOR RECEIVERS OR DME REQUIRED) |               |            |                |               |            |                |               |            |                |               |            |                |               |            |                |
| S-LOC 20R                                               | 460           | 2400       | 406            | 460           | 2400       | 406            | 460           | 4000       | 406            | 460           | 4000       | 406            |               |            |                |
| CIRCLING                                                | 640           | 1          | 584            | 640           | 1          | 584            | 840           | 2 1/4      | 784            | 1160          | 3          | 1104           |               |            |                |

**CHANGES - REASONS**

1. INCREASED S-LOC 20R (DYERS FIX MINIMUMS) MDA/HAT FROM 440/385 TO 460/406 - NEW FINAL CONTROLLING OBSTACLE (196 TRANSMISSION LINE [06-236320] 334247.81N/1175103.66W) AND TDZE CHANGED FROM 55 TO 54.
2. NEW FAS OBSTACLE - NEW FINAL CONTROLLING OBSTACLE (06-236320).
3. S-LOC 20R (DYERS FIX MINIMUMS) VISIBILITY CAT C/D INCREASED FROM 3500 TO 4000 RVR - BASED ON TARGETS EVALUATION WITH INCREASED HAT.
4. ADDED CAT I CHART NOTE: CIRCLING RWY 20L NA AT NIGHT - UNLIGHTED 20:1 PENETRATIONS IAW 8260.19I 8-6-11(O).
5. CAT I SA HAT CHANGED FROM 166 TO 167, DA REMAINS UNCHANGED -- TDZE CHANGED FROM 55 TO 54.
6. ILS HAT CHANGED FROM 200 TO 201, DA REMAINS UNCHANGED -- TDZE CHANGED FROM 55 TO 54.
7. REMOVED ALL REFERENCE TO SDF BEING "LOC ONLY" - IAW 8260.19I 1-1-5F(12).
8. REMOVED "...AND USE OF HUD TO DH" FROM ILS CAT I SA NOTE - IAW 8260.19I 8-6-11(M).
9. VDP CHANGED FROM 2.19 DME#/1.05 MILES TO LTP TO 2.24 DME/1.10 NM TO LTP AND REMOVED "# LOC ONLY" - LOWEST MDA INCREASED AND IAW 8260.19I 8-6-10M.
10. CHANGED CHART PLANVIEW NOTE FROM "PROCEDURE NA FOR ARRIVAL ON SLI VORTAC AIRWAY RADIALS 058 CW 120" TO "PROCEDURE NA FOR ARRIVAL ON SLI VORTAC AIRWAY RADIAL 058 CW 080" - R-120 LESS THAN A 120 DEGREE TURN IAW 8260.3E 2-3-1A(2).
11. ADDED CHART NOTE: FOR INOPERATIVE ALS, INCREASE DYERS FIX MINIMUMS S-LOC 20R CAT C AND D VISIBILITY TO RVR 6000 - IAW 8260.19I 8-6-11O(3)D.
12. ADDED "MAX 4500 TO PROFILE LINE 2 - IAW 8260.19I 8-6-7B(2).
13. PROFILE LINE 4 CHANGED TO REFLECT DYERS DME CHANGE FROM 4.12 TO 4.11 - BASED ON CURRENT AIRNAV DATA.
14. ADDED DISTANCE TO THLD FROM 167 HAT (2467) TO PROFILE LINE 5 -- IAW 8260.19I 8-6-7E(1).
15. TCH CHANGED FROM 50.9 TO 50.5 - BASED ON CURRENT AIRNAV DATA.
16. CHANGED ANNOTATION ON S-ILS 20R MINIMUMS AND RVR 1800 CHART NOTE FROM "\*\*\*\*" TO "\*" - "\*" NOTATION NOT IN USE ELSEWHERE ON PROCEDURE.
17. TDZE CHANGED FROM 55 TO 54 - REVISED AIRNAV DATA.
18. CHANGED ALTERNATE MINIMUMS FROM "ILS CAT A/B 1000-2, CAT C 1000-3, CAT D 1200-3 NA WHEN CONTROL TOWER CLOSED" TO "STANDARD, NA WHEN LOCAL WEATHER NOT AVAILABLE, NA WHEN CONTROL TOWER CLOSED." LOC CHANGED FROM "CAT A/B 1000-2, CAT C 1000-3, CAT D 1200-3 NA WHEN CONTROL TOWER CLOSED" TO "CAT A/B 1000-2, CAT C 1000-3, CAT D 1200-3 NA WHEN LOCAL WEATHER NOT AVAILABLE, NA WHEN CONTROL TOWER CLOSED." -- 8260.19I 8-6-11B.
19. CHANGED MSA 050-140 FROM 6900 TO 7000 - USED HIGHER OBSTRUCTION ELEVATION (5920) FOR AAO TO STANDARDIZE WITH OTHER KSNA MSAS CENTERED ON SLI VORTAC.
20. CHANGED S-LOC 20R HAT FROM 985 TO 986 - REVISED AIRNAV DATA.

**COORDINATED WITH:**

**A4A** ☒ **ALPA** ☒ **AOPA** ☒ **APA** ☒ **HAI** ☐ **NBAA** ☒ **OTHER:** SOCAL APP CON, SNA ATCT, AMGR.

**FLIGHT CHECKED BY**

TROY E DEVINE

*Digitally signed by*  
**CASIMIR L TABAKA**  
Jul 05, 2022

**OFFICE**

FPO

**DATE**

08/24/2022

**DEVELOPED BY**

KARLIE BUNTIN

*Digitally signed by*  
**KARLIE B BUNTIN**  
Jun 29, 2022

**OFFICE**

AJV-A432

**DATE**

05/10/2022

**APPROVED BY**

CASIMIR TABAKA

**OFFICE**

AJV-A432

**DATE**

**TITLE**  
MANAGER

*Digitally signed by*  
**CASIMIR L TABAKA**  
Jul 05, 2022