

SNA-KSNA

1-10

AOI

**GENERAL****Operational Hours****ATS Hours:** TWR 1415-0700‡**AD OPS Hours:** Attended continuously**Airport Information****RFF:** FAA Index C / CAT 7**Fuel:** JET A**PCN:** RWY 02L/20R: 89/F/B/X/T, RWY 02R/20L: 72/F/B/X/T**Operation****Traffic Note**

Limited Aviation Weather Reporting Station (LAWRS) in operation 1400-0700‡.

RWY and APCH lights are turned off when TWR CLSD, thereafter activation by CTAF.

**Transponder OPS**

ASDE-X in use, operate transponders with ALT reporting Mode and ADS-B (if equipped) enabled on all airport surfaces.

**RWY Restriction**

RWY 02R/20L CLSD when ATC not AVBL.

**VOR Test Facility (VOT):** 110.0**Warnings****SLI DME** unusable: R125-R195 beyond 20NM below 5000ft.

Birds in vicinity of AD.

**ARRIVAL****Speed**

MAX IAS 250KT below 10000ft.

**Communication****COM Failure:** See CRAR and in addition;**ROOBY**

LGB RWY 30:

After ROYYC intercept and proceed on the RNAV (RNP) RWY 30 or ILS RWY 30 APCH.

**RWY 12:**

After ROYYC maintain 3000ft and proceed direct BREKE then on RNAV (RNP) RWY 12 APCH.

If unable APCH to LGB climb to 4000ft direct SLI VOR/DME and hold.

**SNA RWY 02L:**

After GRYCE proceed RNAV (RNP) RWY 02L APCH or maintain 3000ft and proceed direct MINOE then on LOC BC RWY 02L APCH.

If unable APCH to SNA climb to 5000ft direct SLI VOR/DME and hold.

**SNA-KSNA****1-20****AOI****ARRIVAL****DSNEE**

| LGB RWY 30/26R:

After MIDDS proceed on RNAV (RNP) RWY 30 or ILS RWY 30 APCH.

RWY 12:

After BREKE proceed on the RNAV (RNP) RWY 12 APCH.

If unable APCH, after MIDDS/BREKE climb to 4000ft direct SLI VOR/DME and hold.

SNA RWY 20R:

After DSNEE proceed on the RNAV (RNP) RWY 20R APCH.

If unable APCH, after DSNEE maintain 6000ft direct SLI VOR/DME and hold.

**OHSEA RNAV, TILLT RNAV**

RWY 20R:

After BHEAR turn right direct SNAKE and execute ILS or LOC RWY 20R APCH.

**TILLT RNAV**

RWY 02L:

Proceed on LOC BC RWY 02L, RNAV (GPS) Y RWY 02L or RNAV (RNP) Z RWY 02L.

**Arrival Procedure****VFR Traffic Pattern**

RWY 20R and 02R right-hand circuit.

**Noise Abatement Procedure**

Maintain 300ft AGL or above until established on final.

**Warnings****ILS RWY 20R:** LOC backcourse unusable beyond 25° left and right of course.

SNA-KSNA

1-30

AOI

## DEPARTURE

## | Take-off Minima

RWY		20R	
1+2 ENG	ft - ft/SM	0 - 5000R/1.0V	SID FINZZ: MNM climb gradient 5.3% up to 560 SID MUSEL: MNM climb gradient 5.7% up to 2400 SID CHANNEL: MNM climb gradient 7.3% up to 2400 SID HHERO: MNM climb gradient 8.3% up to 560 SID STAYY: MNM climb gradient 8.3% up to 600
3+4 ENG		0 - 2400R/0.5V	
RWY		02L	
1+2 ENG	ft - ft/SM	0 - 1.0V	SID EL TORO, SID IRVINE: MNM climb gradient 6.4% up to 5600 SID PIGGN: MNM climb gradient 8.3% up to 800 SID HOBOW, SID MIKAA: MNM climb gradient 8.3% up to 1500
3+4 ENG		0 - 0.5V	
All ACFT		Not authorized	SID HHERO, SID STAYY

## Speed

MAX IAS 250KT below 10000ft.

## Communication

**COM Failure:** See CRAR and in addition;**SID EL TORO, IRVINE**

If contact is lost before R332 ELB, turn right direct ELB VOR/DME, climb to 7000 and proceed via assigned transition or route. Climb to filed ALT ten minutes after departure.

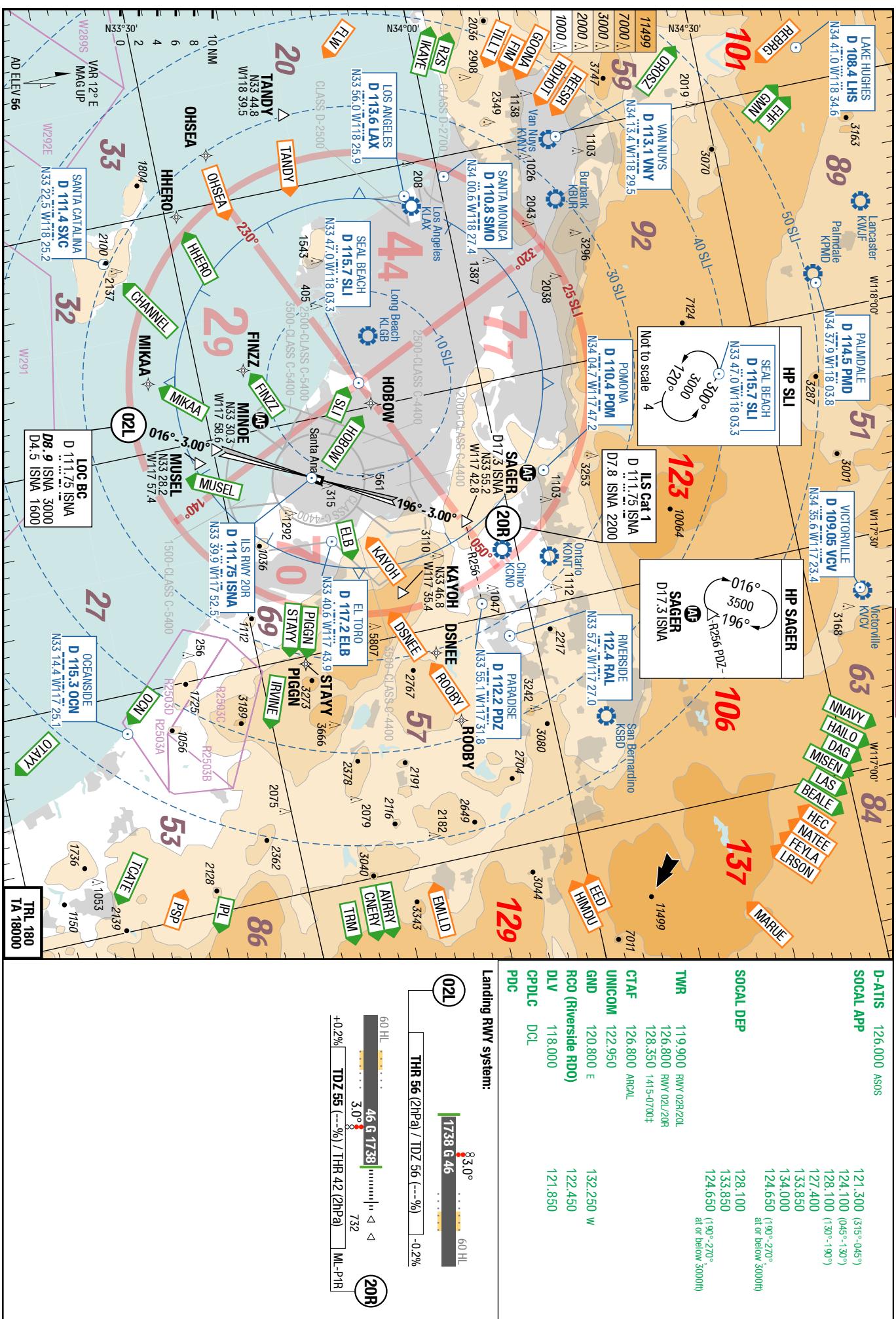
SNA-KSNA

2-10

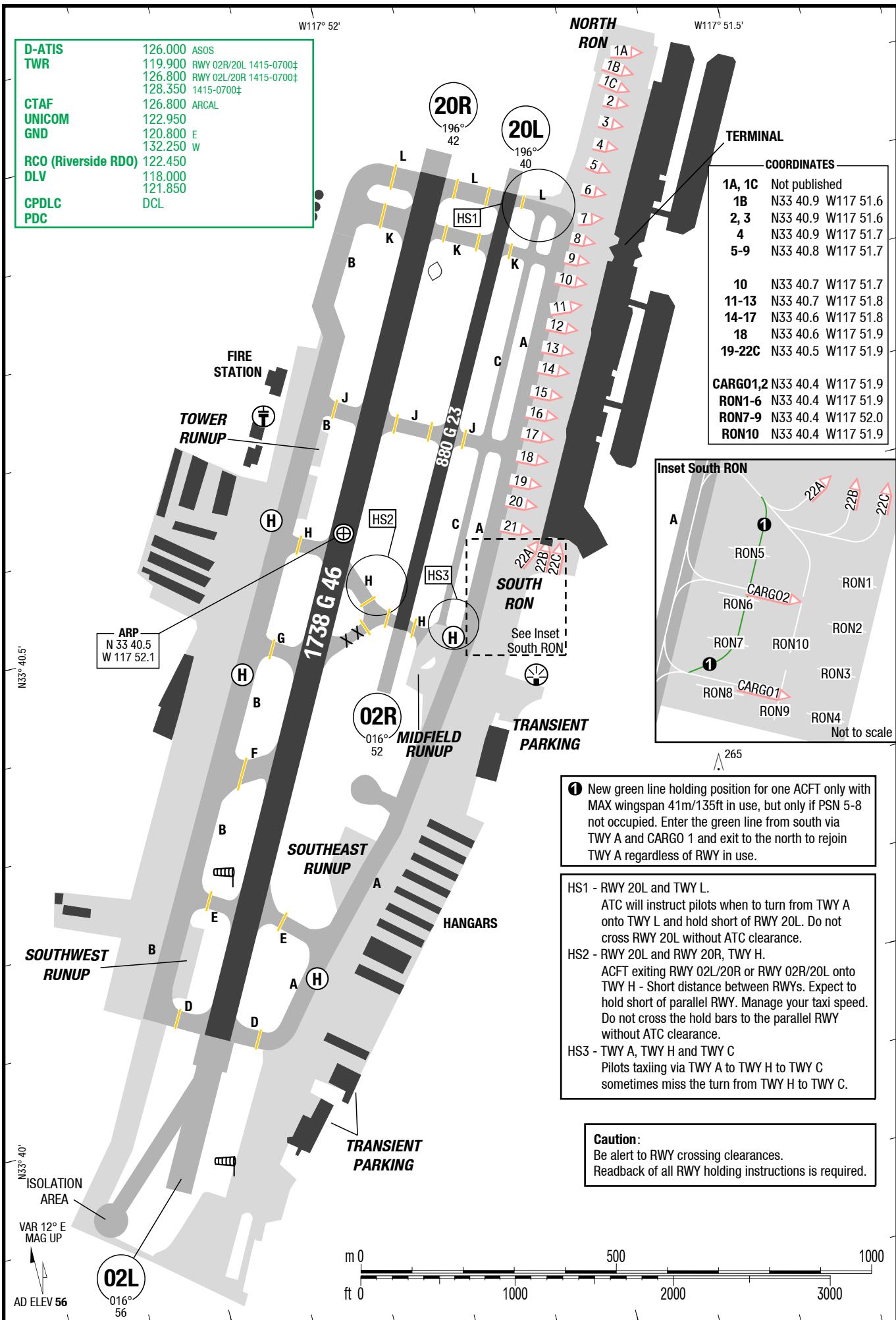
A  
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A

A  
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C



## Changes: Nil



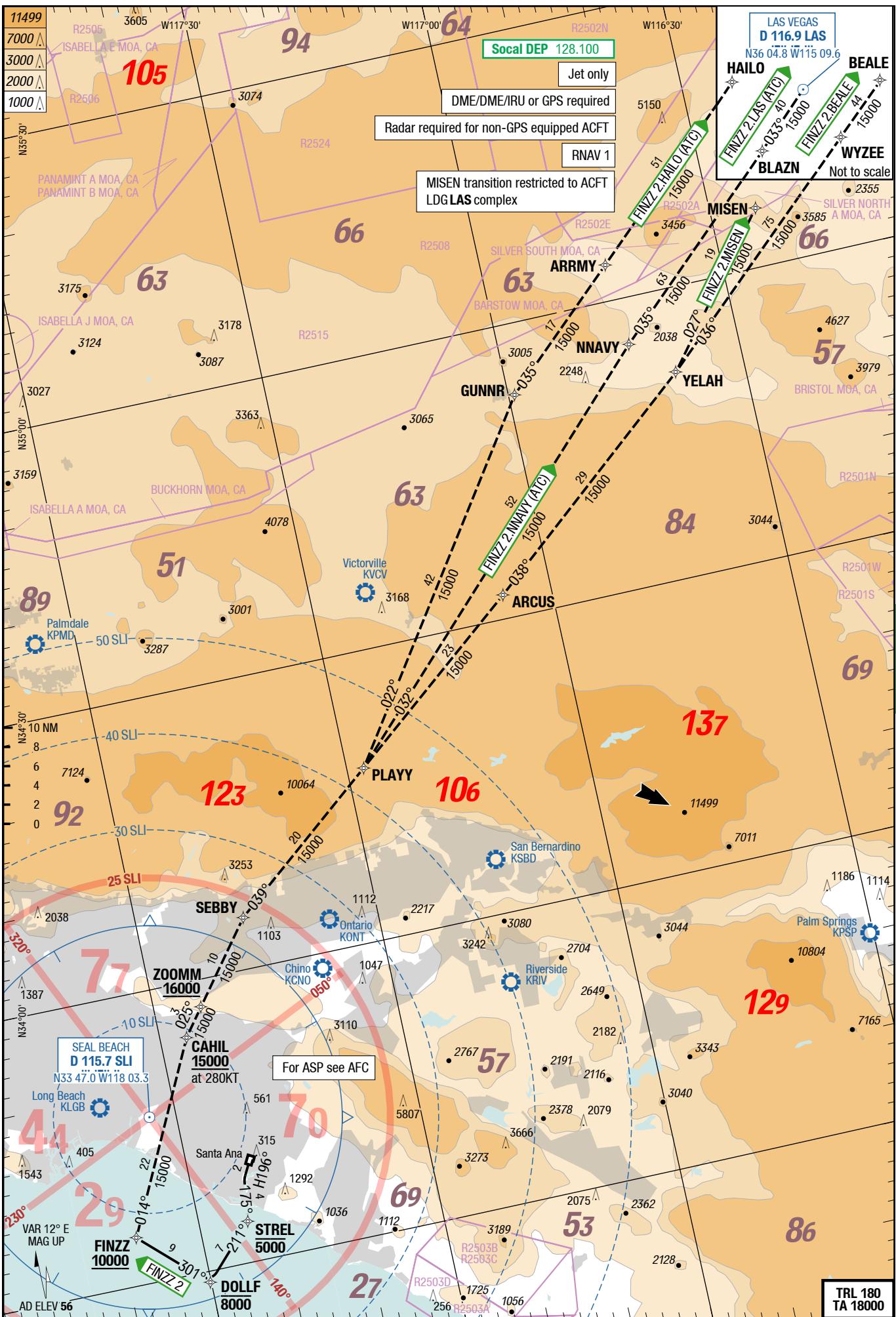
4-10

FINZZ 2 RNAV

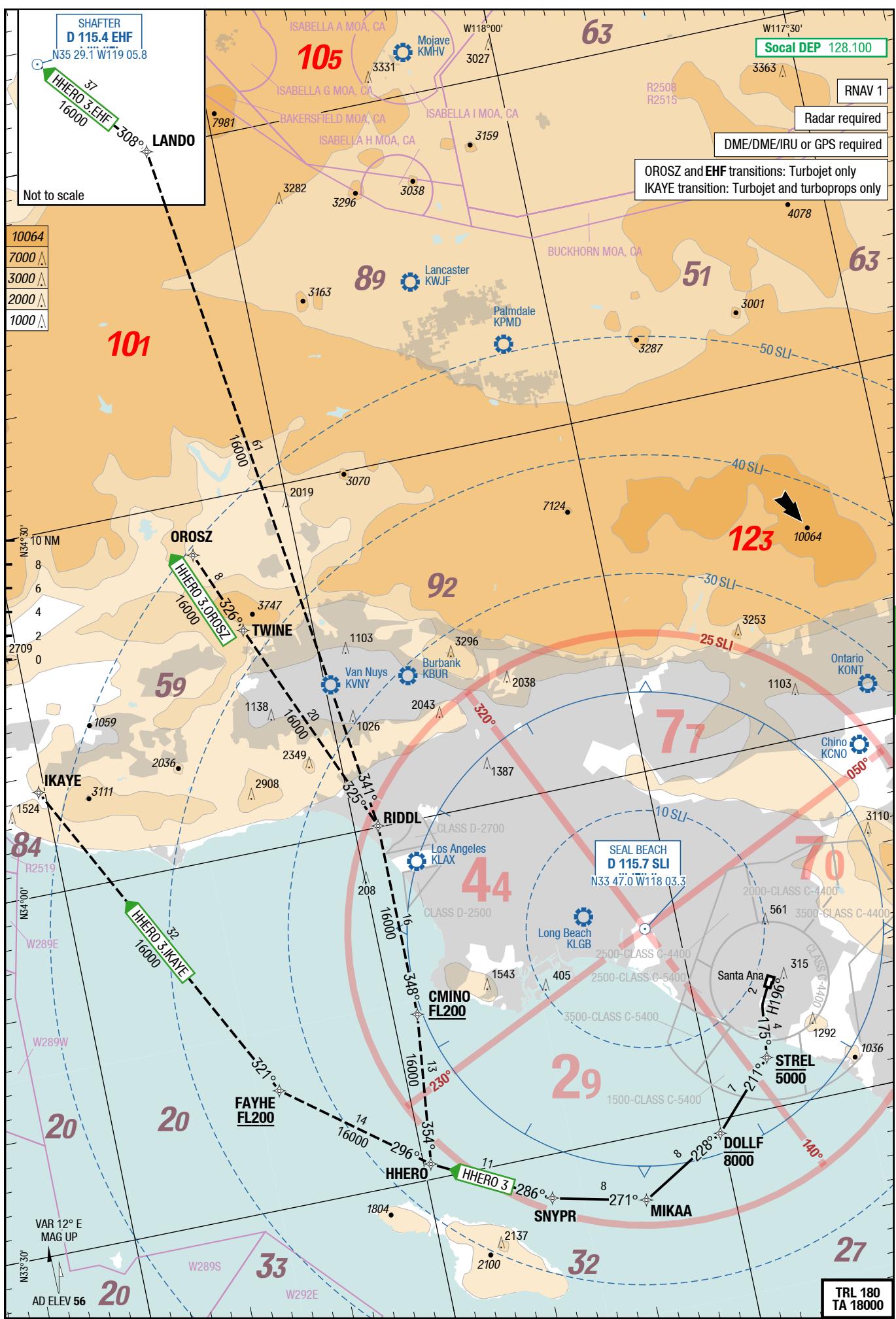
9

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FINZZ 2 RNAV



Changes: PROC, PROC renumbered, OBST



**Effective 01-FEB-2018**

25-JAN-2018

United States Santa Ana John Wayne Airport-Orange County

John Wayne Airport-Orange County **Santa Ana** United States

SNA-KSNA

4-30

# **HOBOW 2 RNAV**

8

10

## **HOBOW 2 RNAV**

**TRL 180  
TA 18000**

## Changes: PROC renumbered, Note, OBST

Effective 01-FEB-2018

25-JAN-2018

United States Santa Ana John Wayne Airport-Orange County

John Wayne Airport-Orange County Santa Ana United States

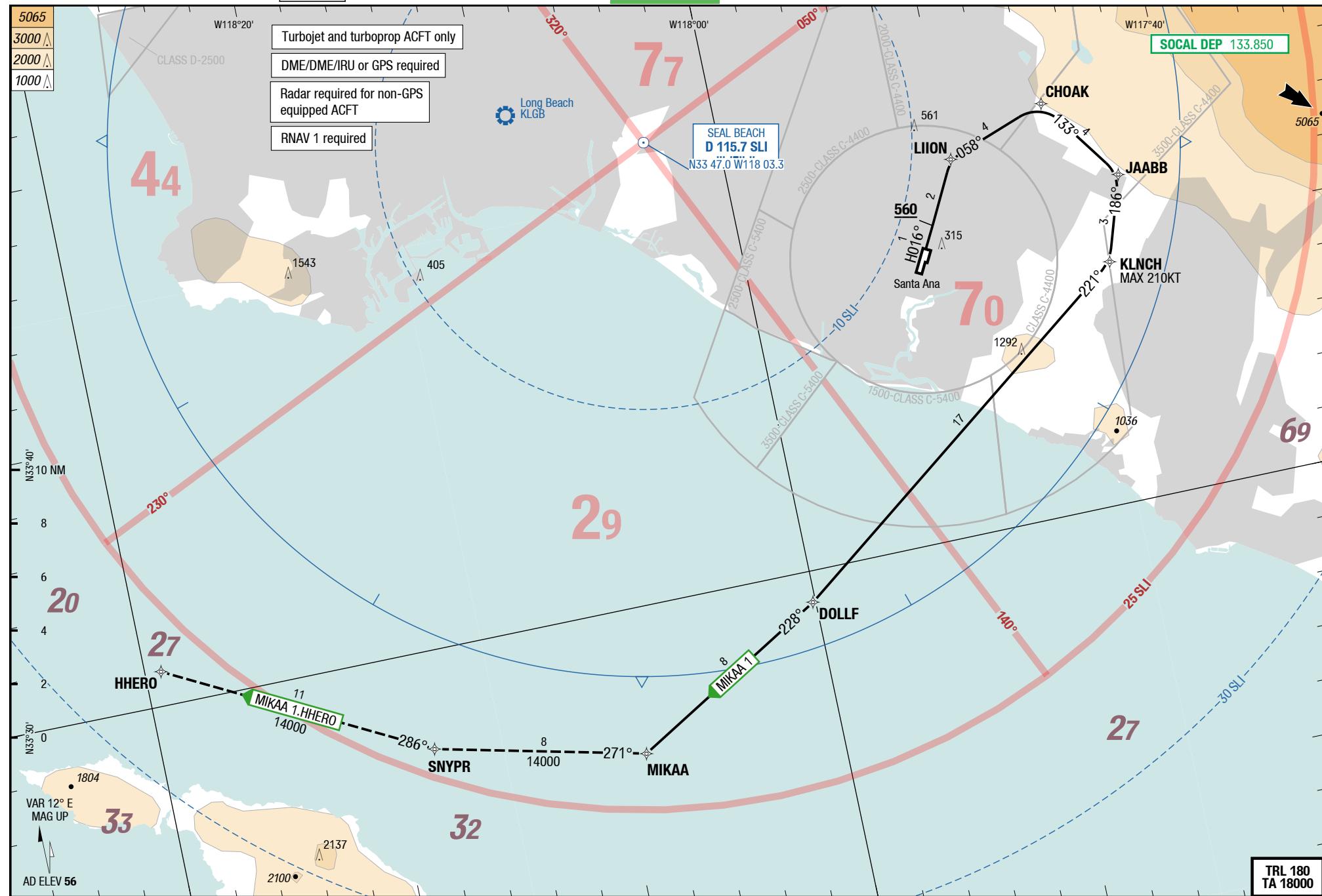
SNA-KSNA

4-40

MIKAA 1 RNAV

SID SID

MIKAA 1 RNAV



Changes: Nil

26-APR-2018

United States Santa Ana John Wayne Airport-Orange County

STAYY 1 RNAV

4-50

PIGNN 2 RNAV

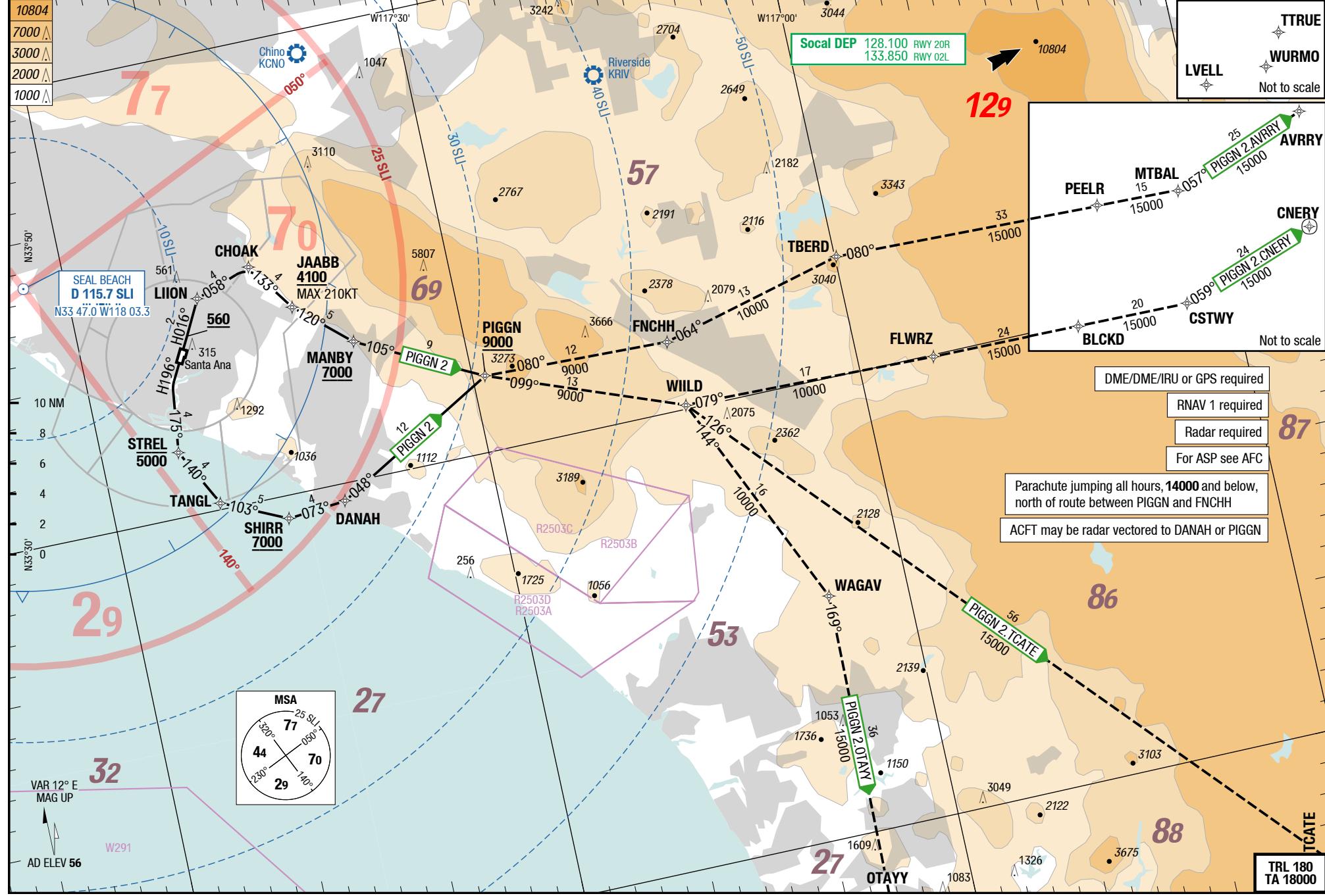
SID SID

John Wayne Airport-Orange County Santa Ana United States

STAYY 1 RNAV

PIGNN 2 RNAV

SNA-KSNA



26-APR-2018

United States **Santa Ana** John Wayne Airport-Orange County

John Wayne Airport-Orange County **Santa Ana** United States

SNA-KSNA

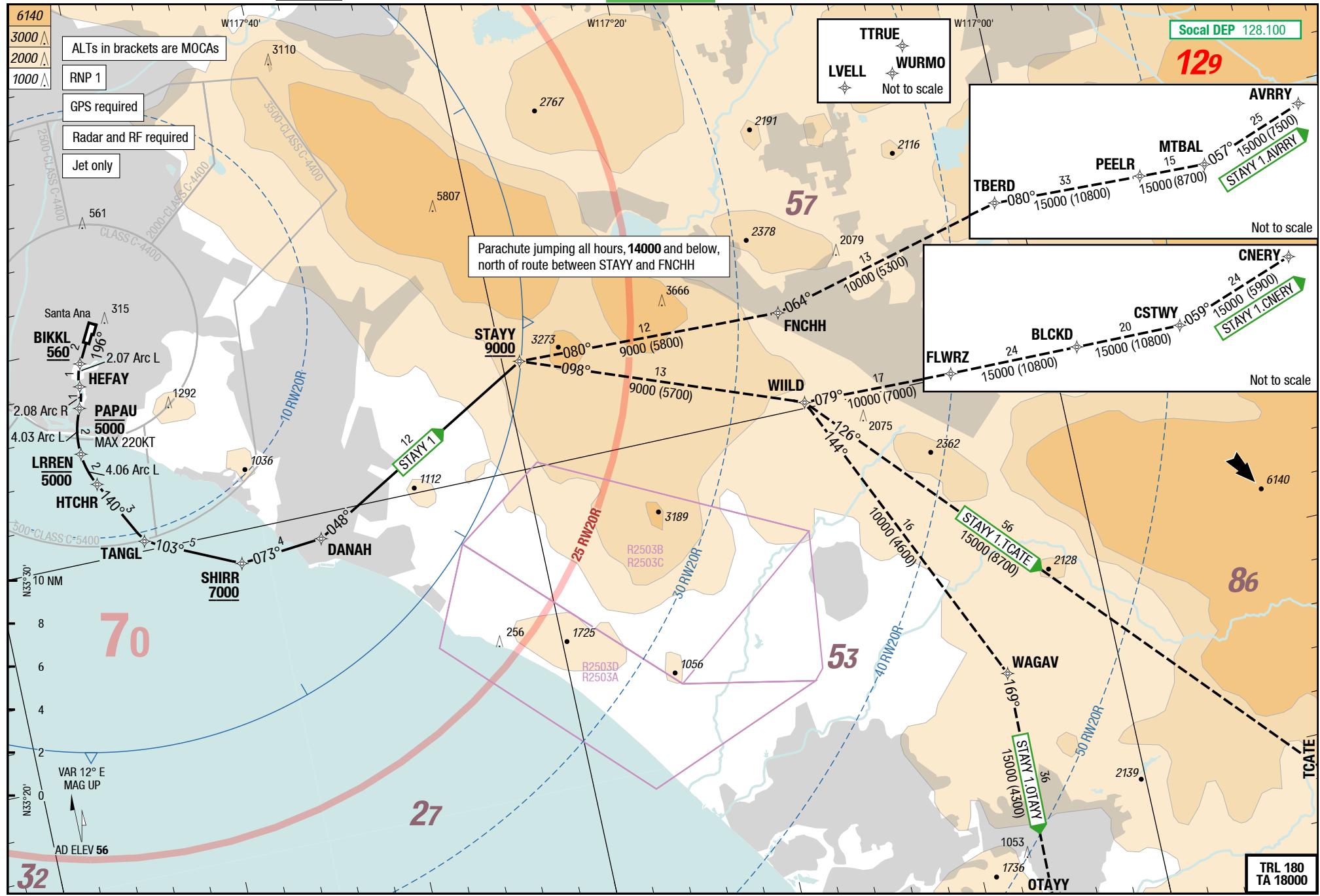
4-60

**STAYY 1 RNAV**

SD

10

**STAYY 1 RNAV**



**Effective 27-APR-2017**

20-APR-2017

**United States Santa Ana** John Wayne Airport-Orange County

EL TORO 4 (ELB 4)

John Wayne Airport-Orange County **Santa Ana** United States

EL TORO 4 (ELB 4)

SNA-KSNA

4-70

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**CHANNEL 3**

**SAN MARCUS D 114.9 RZS**  
N34 30.6 W119 46.3

**VENTURA D 108.2 VTU**  
N34 06.9 W119 03.0

**CHANNEL 3.RZS**

**R110**   **R290**   **16000**

**R130**

**43**

**1524**

**R2519**

**84**

**59**

**3111**

**2036**

**1138**

**2908**

**10 NM**

**1000**

**W119°00'**

**W118°40'**

**N34 00' 00"**

**N34 00' 30"**

**N34 00' 00"**

**50 SLL**

**40 SLL**

**54**

**16000**

**20**

**20**

**20**

**VAR 12° E  
MAG UP**

**AD ELEV 56**

**W289E**

**W289W**

**W289S**

**SHAFTER**  
**D 115.4 EHF**  
N35 29.1 W119 05.8

**LANDO**  
D36.9 EHF  
D65.3 LAX  
N35 00.7  
W118 37.0

**GORMAN**  
**D 116.1 GMN**  
N34 48.2 W118 51.7

**LOS ANGELES**  
**D 113.6 LA**  
N33 56.0 W118 18.0

Not to scale

25 SLI

33

27

1804

R126  
R16000  
R142  
R18000  
R337  
R322  
R164

J5  
J5  
J5  
J5  
J5  
J5

SANTA CATALINA  
**D 111.4 SXC**  
N33 22.5 W118 25.2

V292E

**Socal DEP 128.100**

Radar required

Some ACFT may be radar vectored to assigned route

EHF and GMN transitions: Jet only.

**SEAL BEACH D 115.7 SLI**  
N33 47.0 W118 03.3

**ILS RWY 20R D 111.75 ISNA**  
N33 39.9 W117 52.5

**Long Beach KLGB**

**Santa Ana D1 ISNA**  
H1796 370

**CLASS C-4400**

**CLASS C-5400**

**CLASS C-4400**

**CLASS C-5400**

**CLASS C-5400**

**CLASS C-4400**

**CHANNEL 3**

**TRL 180 TA 18000**

Effective 27-APR-2017

20-APR-2017

United States Santa Ana John Wayne Airport-Orange County

John Wayne Airport-Orange County Santa Ana United States

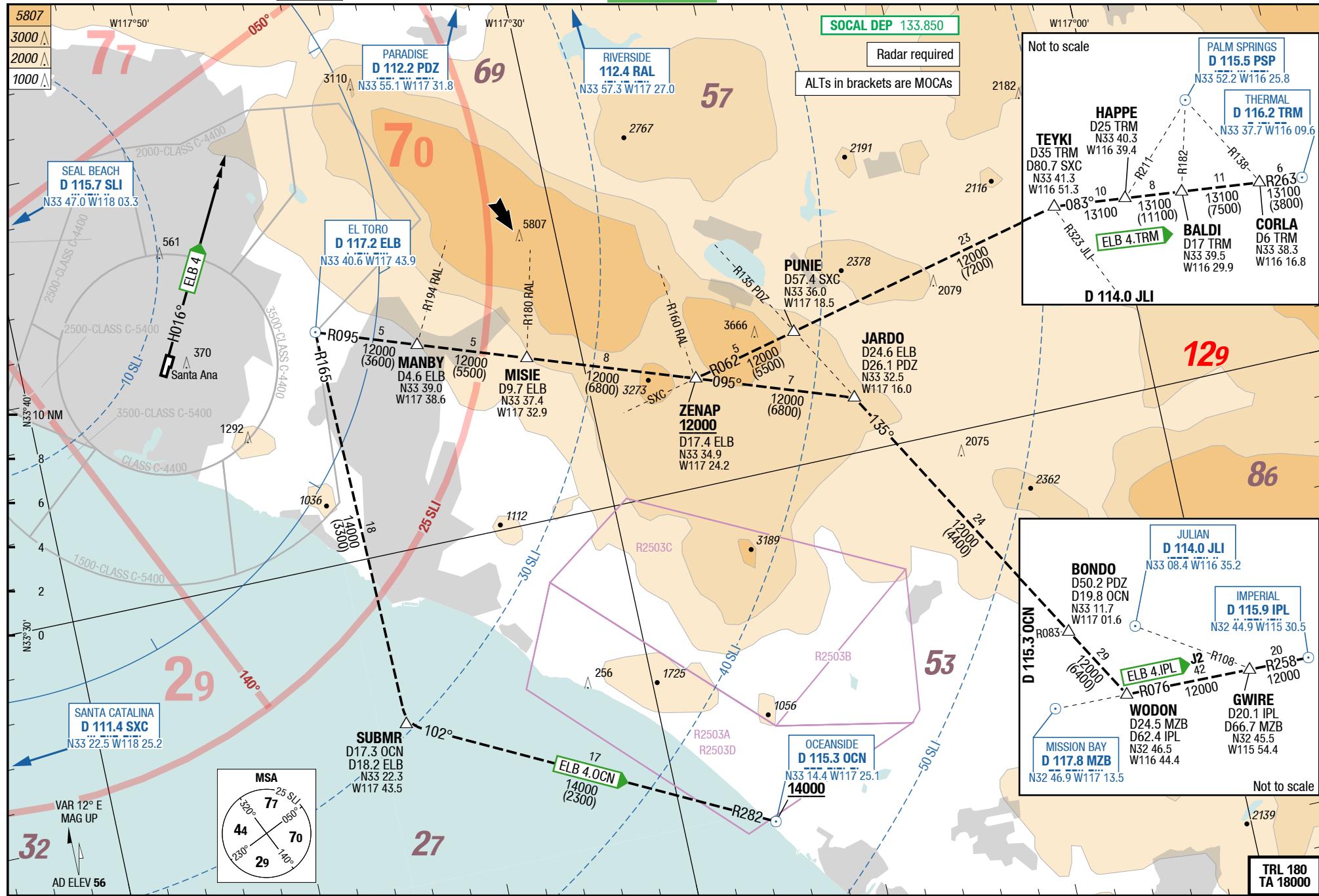
SNA-KSNA

4-80

EL TORO 4 (ELB 4)

SID SID

EL TORO 4 (ELB 4)



**Effective 27-APR-2017**

20-APR-2017

United States **Santa Ana** John Wayne Airport-Orange County

John Wayne Airport-Orange County **Santa Ana** United States

SNA-KSNA

4-90

IRVINE 4

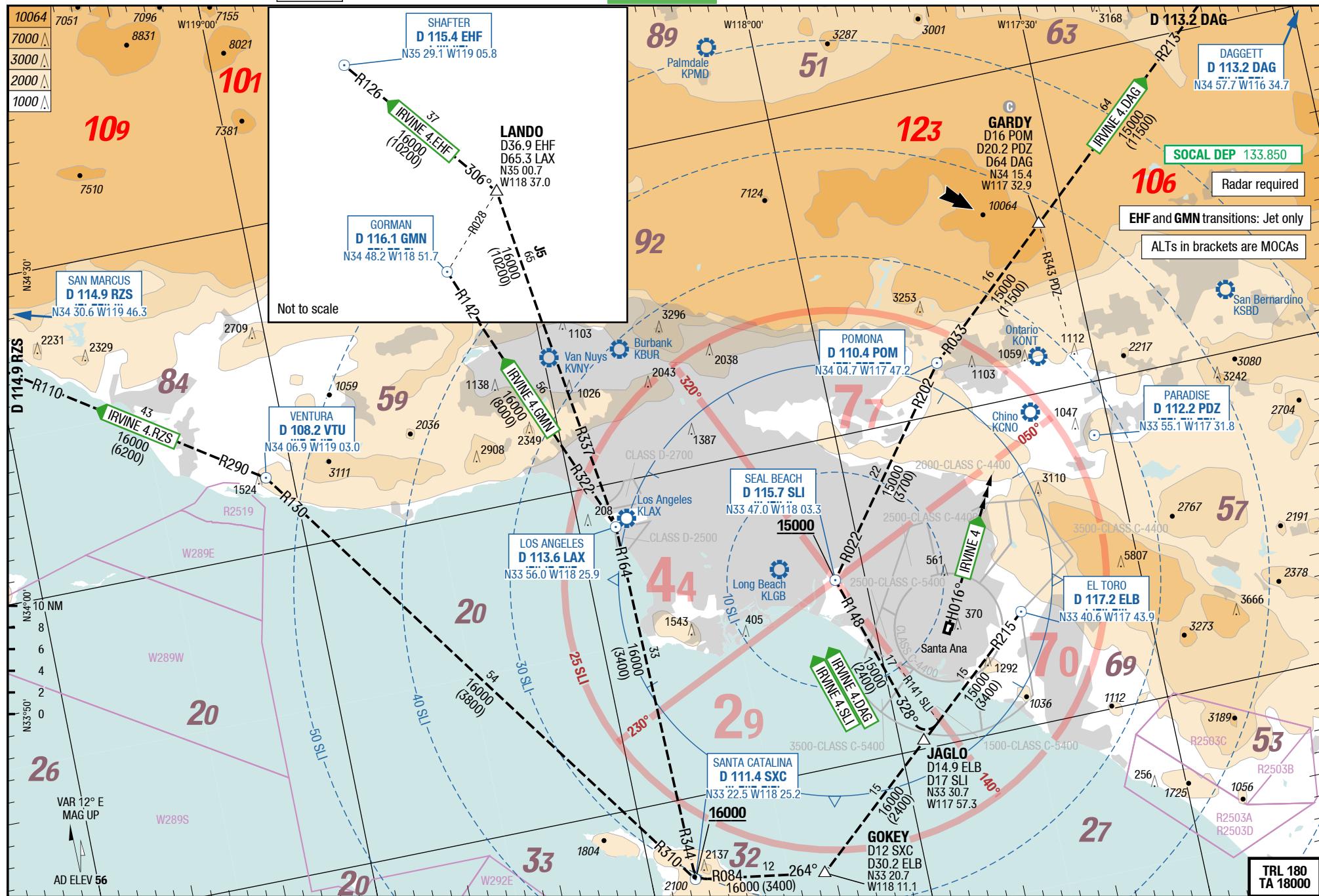
2

SD

John Wayne Airport-Orange County **Santa Ana** United States

MUSE

IRVINE 4

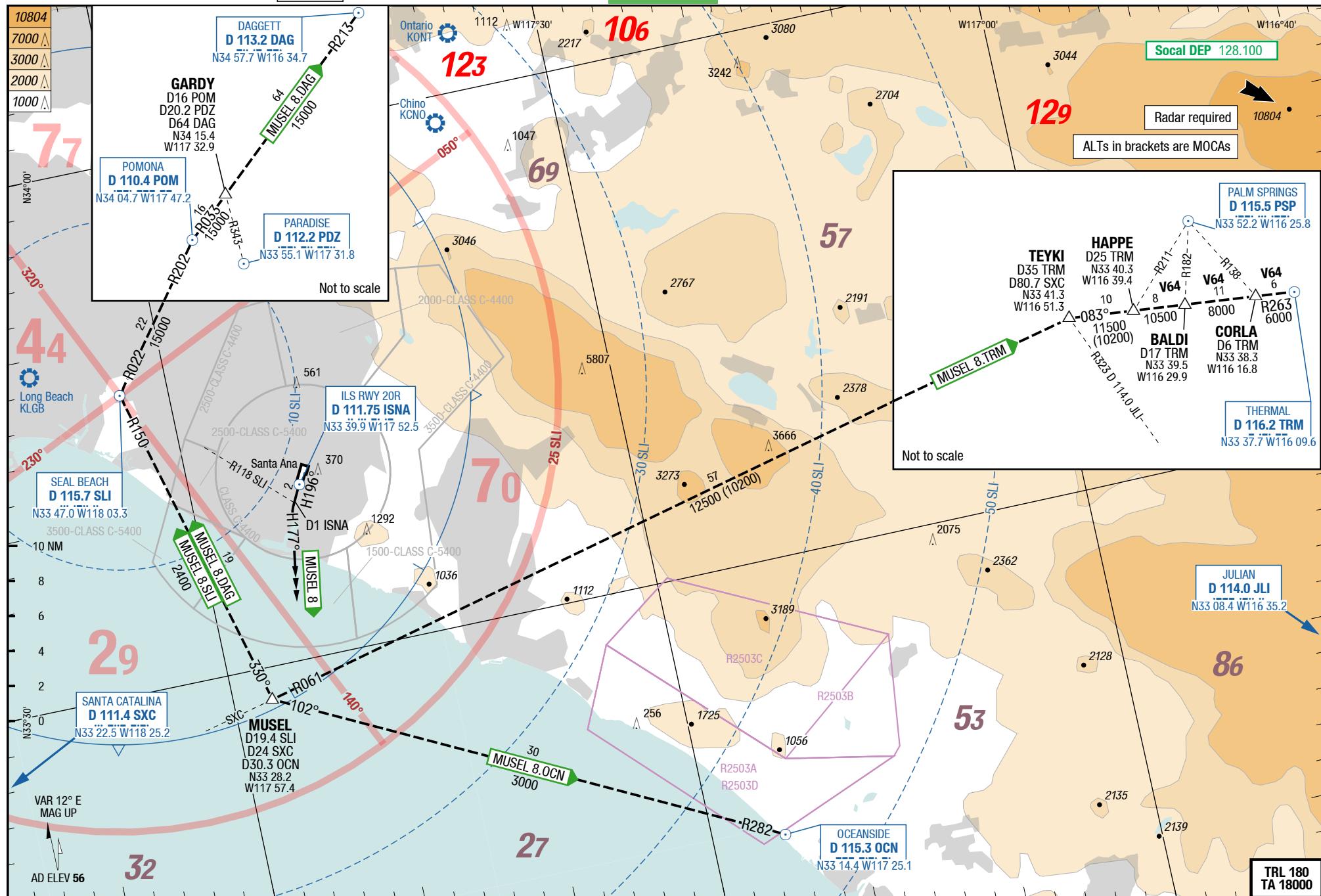


SNA-KSNA

4-100

MUSEL 8

MUSEL 8



**SNA-KSNA****5-10****FINZZ 2 RNAV****FINZZ 2**

RWY 20R (196°)

DESIGNATOR	ROUTING	ALTITUDES
	Runway 20R	
<b>FINZZ 2</b> (Jet) <b>128.100</b> ①②③	H196° INTCPT - 175° STREL - DOLLF - FINZZ	STREL MAX <b>5000</b> DOLLF MAX <b>8000</b> FINZZ MNM <b>10000</b>  Initial climb <b>17000</b>
	<b>TRANSITION</b>	
	<b>BEALE</b> FINZZ - CAHIL [K280] - ZO0MM - SEBBY - PLAYY - ARCUS - YELAH - WYZEE - BEALE	FINZZ MNM <b>10000</b> CAHIL MNM <b>15000</b> ZO0MM MNM <b>16000</b>
	<b>HAILO (ATC)</b> FINZZ - CAHIL [K280] - ZO0MM - SEBBY - PLAYY - GUNNR - ARRMY - HAILO	FINZZ MNM <b>10000</b> CAHIL MNM <b>15000</b> ZO0MM MNM <b>16000</b>
	<b>LAS VEGAS (LAS) (ATC)</b> FINZZ - CAHIL [K280] - ZO0MM - SEBBY - PLAYY - NNAVY - BLAZN - LAS	FINZZ MNM <b>10000</b> CAHIL MNM <b>15000</b> ZO0MM MNM <b>16000</b>
	<b>MISEN</b> FINZZ - CAHIL [K280] - ZO0MM - SEBBY - PLAYY - ARCUS - YELAH - MISEN	FINZZ MNM <b>10000</b> CAHIL MNM <b>15000</b> ZO0MM MNM <b>16000</b>
	<b>NNAVY (ATC)</b> FINZZ - CAHIL [K280] - ZO0MM - SEBBY - PLAYY - NNAVY	FINZZ MNM <b>10000</b> CAHIL MNM <b>15000</b> ZO0MM MNM <b>16000</b>

- ① Expect filed altitude 10 MIN after departure
- ② If unable speed restriction at CAHIL, advise ATC on initial contact
- ③ MISEN transition restricted to ACFT LDG LAS complex

**SNA-KSNA****5-20****HHERO 3 RNAV**

SIDPT

**HHERO 3**

RWY 20R (196°)

DESIGNATOR	ROUTING	ALTITUDES
	<b>Runway 20R</b>	
<b>HHERO 3 128.100 ①②</b>	H196° INTCPT - 175° STREL - DOLLF - MIKAA - SNYPR - HHERO	STREL MAX <b>5000</b> DOLLF MAX <b>8000</b> <b>Initial climb</b> by ATC
	<b>TRANSITION</b>	
	<b>IKAYE</b> HHERO - FAYHE - IKAYE	FAYHE MNM <b>FL200</b>
	<b>OROSZ</b> HHERO - CMINO - RIDL - TWINE - OROSZ	CMINO MNM <b>FL200</b>
	<b>SHAFTER (EHF)</b> HHERO - CMINO - RIDL - LANDO - EHF	CMINO MNM <b>FL200</b>

① Expect filed altitude 10 MIN after departure

② OROSZ and EHF transitions: Turbojet only. IKAYE transition: Turbojet and turboprops only

**SNA-KSNA**

**5-30**

**HOBOW 2 RNAV**

SIDPT

**HOBOW 2**

RWY 02L (016°)

DESIGNATOR	ROUTING	ALTITUDES
	<b>Runway 02L</b>	
<b>HOBOW 2</b> (Jet only) <b>133.850</b> ①②③	H016° [A560+] - DCT LIION - CHOAK - JAABB - KLNCH [K210-] ] - TKDWN - TRAYN - JUMPP - HOBOW	TRAYN between <b>10000</b> and <b>12000</b> <b>Initial climb 17000</b>
	<b>TRANSITION</b>	
<b>BEALE</b>	HOBOW - CAHIL [K280] - ZO0MM - SEBBY - PLAYY - ARCUS - YELAH - WYZEE - BEALE	CAHIL MNM <b>15000</b> ZO0MM MNM <b>16000</b>
<b>HAILO (ATC)</b>	HOBOW - CAHIL [K280] - ZO0MM - SEBBY - PLAYY - GUNNR - ARRMY - HAILO	CAHIL MNM <b>15000</b> ZO0MM MNM <b>16000</b>
<b>LAS VEGAS (LAS) (ATC)</b>	HOBOW - CAHIL [K280] - ZO0MM - SEBBY - PLAYY - NNAVY - BLAZN - LAS	CAHIL MNM <b>15000</b> ZO0MM MNM <b>16000</b>
<b>MISEN</b>	HOBOW - CAHIL [K280] - ZO0MM - SEBBY - PLAYY - ARCUS - YELAH - MISEN	CAHIL MNM <b>15000</b> ZO0MM MNM <b>16000</b>
<b>NNAVY (ATC)</b>	HOBOW - CAHIL [K280] - ZO0MM - SEBBY - PLAYY - NNAVY	CAHIL MNM <b>15000</b> ZO0MM MNM <b>16000</b>

- ① If unable speed restriction at CAHIL, advise ATC on initial contact  
② MISEN transition restricted to ACFT LDG KLAS complex  
③ Expect filed altitude 10 MIN after departure

**SNA-KSNA**

**5-40**

**MIKAA 1 RNAV**

**MIKAA 1**

RWY 02L (016°)

DESIGNATOR	ROUTING	ALTITUDES
	<b>Runway 02L</b>	
<b>MIKAA 1 133.850</b> ①	HDG 016° - at <b>MNM 560</b> direct LIION - CHOAK - JAABB - KLNCH [K210-] - DOLLF - MIKAA	<b>Initial climb 14000</b>
	<b>TRANSITION</b>	
	<b>HHERO</b> MIKAA - SNYPR - HHERO	

① Expect filed altitude 10 MIN after departure

26-APR-2018

**SNA-KSNA****5-50****PIGNN 2 RNAV**

SIDPT

**PIGNN 2**

RWYs 02L (016°) / 20R (196°)

DESIGNATOR	ROUTING	ALTITUDES
<b>PIGNN 2</b> ①②		
<b>RWY 02L</b> 133.850	[A560+] - LIION - CHOAK - JAABB [K210-] - MANBY - PIGNN	JAABB MNM 4100 MANBY MNM 7000 PIGNN MNM 9000  initial climb 13000
<b>TRANSITION</b>		
<b>AVRRY</b> PIGNN - FNCHH - TBERD - PEELR - MTBAL - AVRRY		PIGNN MNM 9000
<b>CNERY</b> PIGNN - WIILD - FLWRZ - BLCKD - CSTWY - CNERY		PIGNN MNM 9000
<b>OTAYY</b> PIGNN - WIILD - WAGAV - OTAYY		PIGNN MNM 9000
<b>TCATE</b> PIGNN - WIILD - TCATE		PIGNN MNM 9000

① ACFT may be radar vectored to DANAH or PIGNN

② Expect filed altitude 10 MIN after departure

26-APR-2018

**SNA-KSNA****5-60****STAYY 1 RNAV**

SIDPT

**STAYY 1**

RWY 20R (196°)

DESIGNATOR	ROUTING	ALTITUDES
<b>Runway 20R</b>		
<b>STAYY 1</b> (Jet only) <b>128.100</b> ①	196° BIKKL - 2.07 ARC L HEFAY - 2.08 ARC R PAPAU [K220-] - 4.03 ARCL LRREN - 4.06 ARCL HTCHR - TANGL - SHIRR - DANAH - STAYY	BIKKL MNM <b>560</b> PAPAU MAX <b>5000</b> LRREN MAX <b>5000</b> SHIRR MNM <b>7000</b> STAYY MNM <b>9000</b>  <b>Initial climb 13000</b>
<b>TRANSITION</b>		
<b>AVRRY</b> STAYY - FNCHH - TBERD - PEELR - MTBAL - AVRRY		STAYY MNM <b>9000</b>
<b>CNERY</b> STAYY - WIILD - FLWRZ - BLCKD - CSTWY - CNERY		STAYY MNM <b>9000</b>
<b>OTAYY</b> STAYY - WIILD - WAGAV - OTAYY		STAYY MNM <b>9000</b>
<b>TCATE</b> STAYY - WIILD - TCATE		STAYY MNM <b>9000</b>

① Expect filed altitude 10 MIN after departure.

**SNA-KSNA**

**5-70**

**CHANNEL 3**

SIDPT

**CHANNEL 3**

RWY 20R (196°)

DESIGNATOR	ROUTING	ALTITUDES
	<b>Runway 20R</b>	
<b>CHANNEL 3</b> <b>128.100</b> ①②③	HDG 196° or <b>ISNA</b> LOC south course - at D1 <b>ISNA</b> or crossing R118 <b>SLI LT</b> HDG 177° - crossing R132 <b>SLI RT</b> HDG 202° intercept R084 <b>SXC</b> to <b>SXC</b>	
	<b>TRANSITION</b>	
	<b>GORMAN (GMN)</b> <b>SXC</b> - R344 <b>SXC</b> (R164 <b>LAX</b> ) to <b>LAX</b> - R322 <b>LAX</b> (R142 <b>GMN</b> ) to <b>GMN</b>	
	<b>SAN MARCUS (RZS)</b> <b>SXC</b> - R310 <b>SXC</b> (R130 <b>VTU</b> ) to <b>VTU</b> - R290 <b>VTU</b> (R110 <b>RZS</b> ) to <b>RZS</b>	
	<b>SHAFTER (EHF)</b> <b>SXC</b> - R344 <b>SXC</b> (R164 <b>LAX</b> ) to <b>LAX</b> - R337 <b>LAX</b> to <b>LANDO</b> - <b>LT</b> intercept R126 <b>EHF</b> to <b>EHF</b>	

- ① Expect filed altitude 10 min after departure.
- ② Some ACFT may be radar vectored to assigned route.
- ③ SHAFTER and GORMAN transitions: Jet only.

**SNA-KSNA**

**5-80**

**EL TORO 4 (ELB 4)**

SIDPT

**EL TORO 4**

RWY 02L (016°)

DESIGNATOR	ROUTING	ALTITUDES
	Runway 02L	
<b>EL TORO 4</b> <b>ELB 4</b> <b>133.850</b> ①	HDG 016° - expect vectors to <b>ELB</b>  <b>TRANSITION</b>  <b>IMPERIAL (IPL)</b> <b>ELB</b> - R095 <b>ELB</b> to MANBY - MISIE - ZENAP - JARDO - R135 <b>PDZ</b> to BOND0 - WODON - R076 <b>MZB</b> to GWIRE - R258 <b>IPL</b> to <b>IPL</b>	
	<b>OCEANSIDE (OCN)</b> <b>ELB</b> - R165 <b>ELB</b> to SUBMR - R282 <b>OCN</b> to <b>OCN</b>	<b>OCN</b> MNM 14000
	<b>THERMAL (TRM)</b> <b>ELB</b> - R095 <b>ELB</b> to MANBY - MISIE - ZENAP - R062 <b>SXC</b> to PUNIE - TEYKI - R263 <b>TRM</b> to HAPPE - BALDI - CORLA - <b>TRM</b>	ZENAP MNM 12000

① Expect filed altitude 10 min after departure.

**SNA-KSNA**

**5-90**

**IRVINE 4**

SIDPT

**IRVINE 4**

RWY 02L (016°)

DESIGNATOR	ROUTING	ALTITUDES
	<b>Runway 02L</b>	
<b>IRVINE 4</b> <b>133.850</b> ①②	HDG 016°- expect vectors to <b>ELB</b>  <b>TRANSITION</b>  <b>DAGGETT (DAG)</b> ELB - R215 ELB to JAGLO - R148 <b>SLI</b> to <b>SLI</b> - R022 <b>SLI</b> / R202 <b>POM</b> to <b>POM</b> - R033 <b>POM</b> to GARDY - R213 <b>DAG</b> to <b>DAG</b>  <b>GORMAN (GMN)</b> ELB - R215 ELB to JAGLO - GOKEY - R084 <b>SXC</b> to <b>SXC</b> - R344 <b>SXC</b> / R164 LAX to LAX - R322 <b>LAX</b> / R142 <b>GMN</b> to <b>GMN</b>  <b>SAN MARCUS (RZS)</b> ELB - R215 ELB to JAGLO - GOKEY - R084 <b>SXC</b> to <b>SXC</b> - R310 <b>SXC</b> / R130 <b>VTU</b> to <b>VTU</b> - R290 <b>VTU</b> / R110 <b>RZS</b> to <b>RZS</b>  <b>SEAL BEACH (SLI)</b> ELB - R215 ELB to JAGLO - R148 <b>SLI</b> to <b>SLI</b>	<b>SLI MNM 15000</b>  <b>SXC MNM 16000</b>  <b>SXC MNM 16000</b>  <b>SLI MNM 15000</b>  <b>SXC MNM 16000</b>
	<b>SHAFTER (EHF)</b> ELB - R215 ELB to JAGLO - GOKEY - R084 <b>SXC</b> to <b>SXC</b> - R344 <b>SXC</b> / R164 LAX to LAX - R337 <b>LAX</b> to LANDO - R126 <b>EHF</b> to <b>EHF</b>	

① Expect filed altitude 10 min after departure.

② EHF and GMN transitions JET only.

**SNA-KSNA**

**5-100**

**MUSEL 8**

SIDPT

**MUSEL 8**

RWY 20R (196°)

DESIGNATOR	ROUTING	ALTITUDES
	<b>Runway 20R</b>	
<b>MUSEL 8</b> <b>128.100</b> ①	HDG 196° or <b>ISNA</b> LOC south course - at D1 <b>ISNA</b> or crossing R118 <b>SLI LT</b> HDG 177° - expect vectors to MUSEL	
	<b>TRANSITION</b>	
	<b>DAGGETT (DAG)</b> MUSEL - intercept R150 <b>SLI</b> to <b>SLI</b> - R022 <b>SLI</b> (R202 <b>POM</b> ) to <b>POM</b> - R033 <b>POM</b> to <b>GARDY</b> - R213 <b>DAG</b> to <b>DAG</b>	
	<b>OCEANSIDE (OCN)</b> MUSEL - intercept R282 <b>OCN</b> to <b>OCN</b>	
	<b>SEAL BEACH (SLI)</b> MUSEL - intercept R150 <b>SLI</b> to <b>SLI</b>	
	<b>THERMAL (TRM)</b> MUSEL - intercept R061 <b>SXC</b> to <b>TEYKI</b> - <b>RT</b> intercept R263 <b>TRM</b> to <b>HAPPE</b> - <b>BALDI</b> - <b>CORLA</b> - <b>TRM</b>	

① Expect filed altitude 10 min after departure.

**SNA-KSNA**

**5-110**

**Obstacle Departure**

SIDPT

**Obstacle Departure**

<b>RWY</b>	<b>Routing</b>
<b>02L/R</b>	Climb <b>LT</b> direct <b>SLI</b> . All aircraft climb in <b>SLI</b> holding pattern (hold south, <b>LT</b> , 351° inbound) to cross <b>SLI</b> at or above MEA for direction of flight before proceeding on course.
<b>20L/R</b>	Climb <b>RT</b> direct <b>SLI</b> . All aircraft climb in <b>SLI</b> holding pattern (hold south, <b>LT</b> , 351° inbound) to cross <b>SLI</b> at or above MEA for direction of flight before proceeding on course.
<b>RWY</b>	<b>Notes</b>
<b>02L</b>	Pole and trees beginning 94ft from DER, 490ft left of centerline, up to 26ft AGL/63ft MSL. Navaid 497ft from DER, 625ft right of centerline, 19ft AGL/55ft MSL. Trees beginning 970ft from DER, 608ft left of centerline, up to 90ft AGL/127ft MSL.
<b>02R</b>	Navaid 497ft from DER, 125ft right of centerline, 19ft AGL/55ft MSL. Pole 1104ft from DER, 307ft right of centerline, 33ft AGL/68ft MSL. Building 1681ft from DER, 671ft right of centerline, 49ft AGL/87ft MSL. Tree 1745ft from DER, 309ft right of centerline, 52ft AGL/85ft MSL.
<b>20R</b>	Pole and trees beginning 204ft from DER, 490ft right of centerline, up to 38ft AGL/91ft MSL. WSK on hangar 536ft from DER, 605ft left of centerline, 40ft AGL/92ft MSL. Poles and trees beginning 808ft from DER, 489ft right of centerline, up to 58ft AGL/108ft MSL. Tree 1574ft from DER, 765ft left of centerline, 60ft AGL/113ft MSL

**Effective 19-JUL-2018**

12-JUL-2018

United States **Santa Ana** John Wayne Airport-Orange County

John Wayne Airport-Orange County **Santa Ana** United States

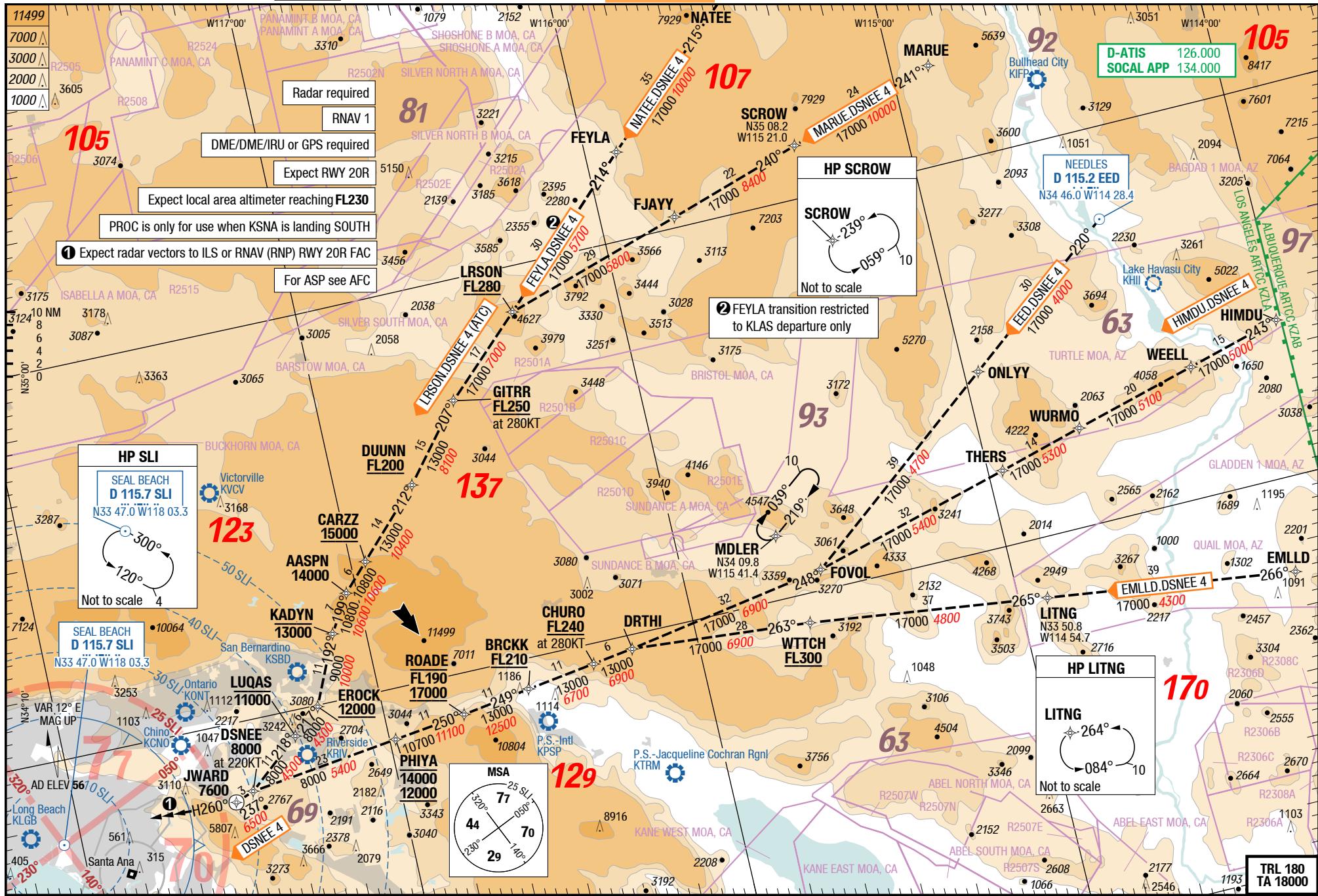
SNA-KSNA

6-10

DSNEE 4 RNAV

**STAR**

DSNEE 4 RNAV



**Effective 19-JUL-2018**

12-JUL-2018

**United States Santa Ana** John Wayne Airport-Orange County

John Wayne Airport-Orange County **Santa Ana** United States

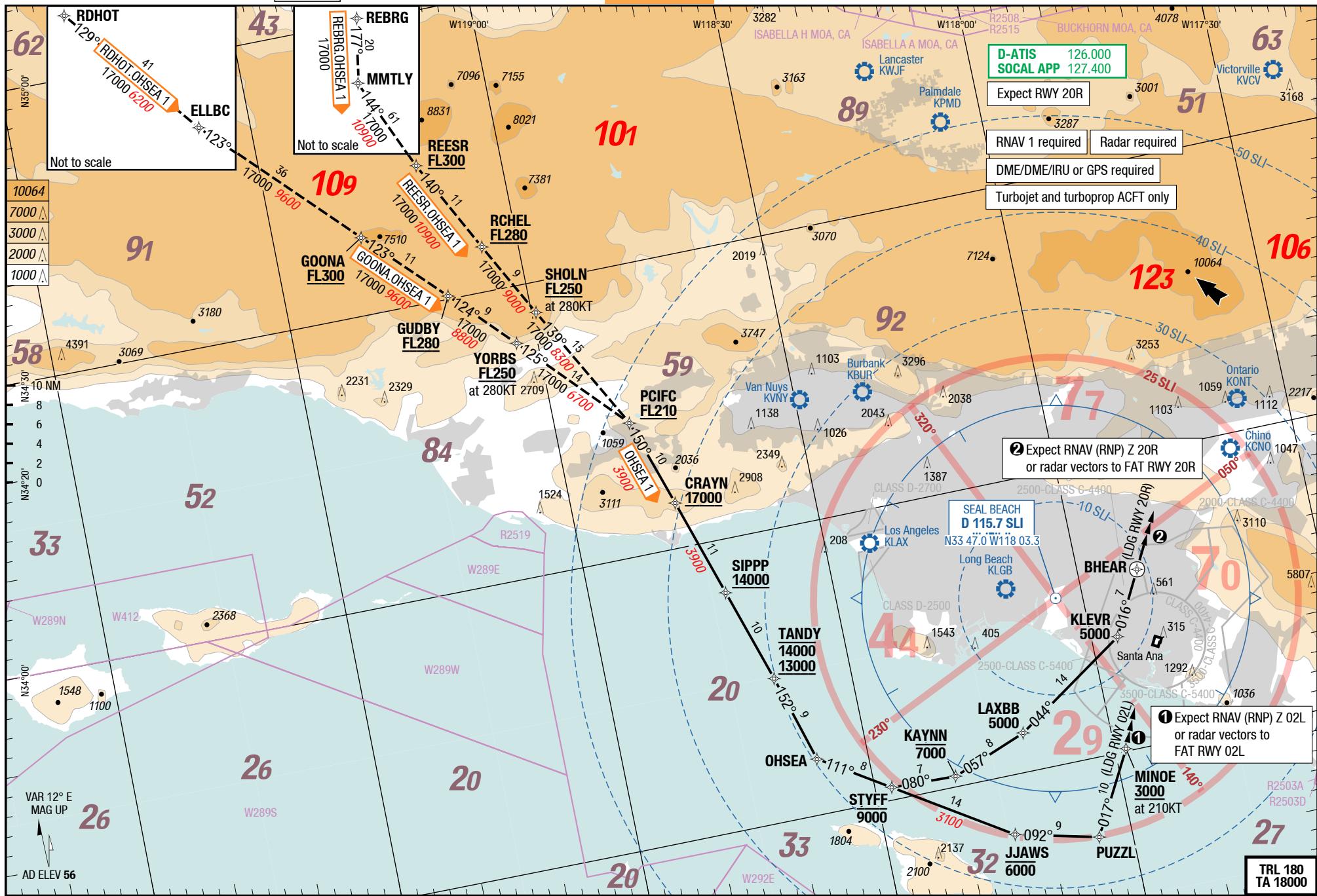
SNA-KSNA

6-20

OHSEA 1 RNAV

STAR

OHSEA 1 RNAV



**Effective 01-FEB-2018**

25-JAN-2018

United States **Santa Ana** John Wayne Airport-Orange County

John Wayne Airport-Orange County **Santa Ana** United States

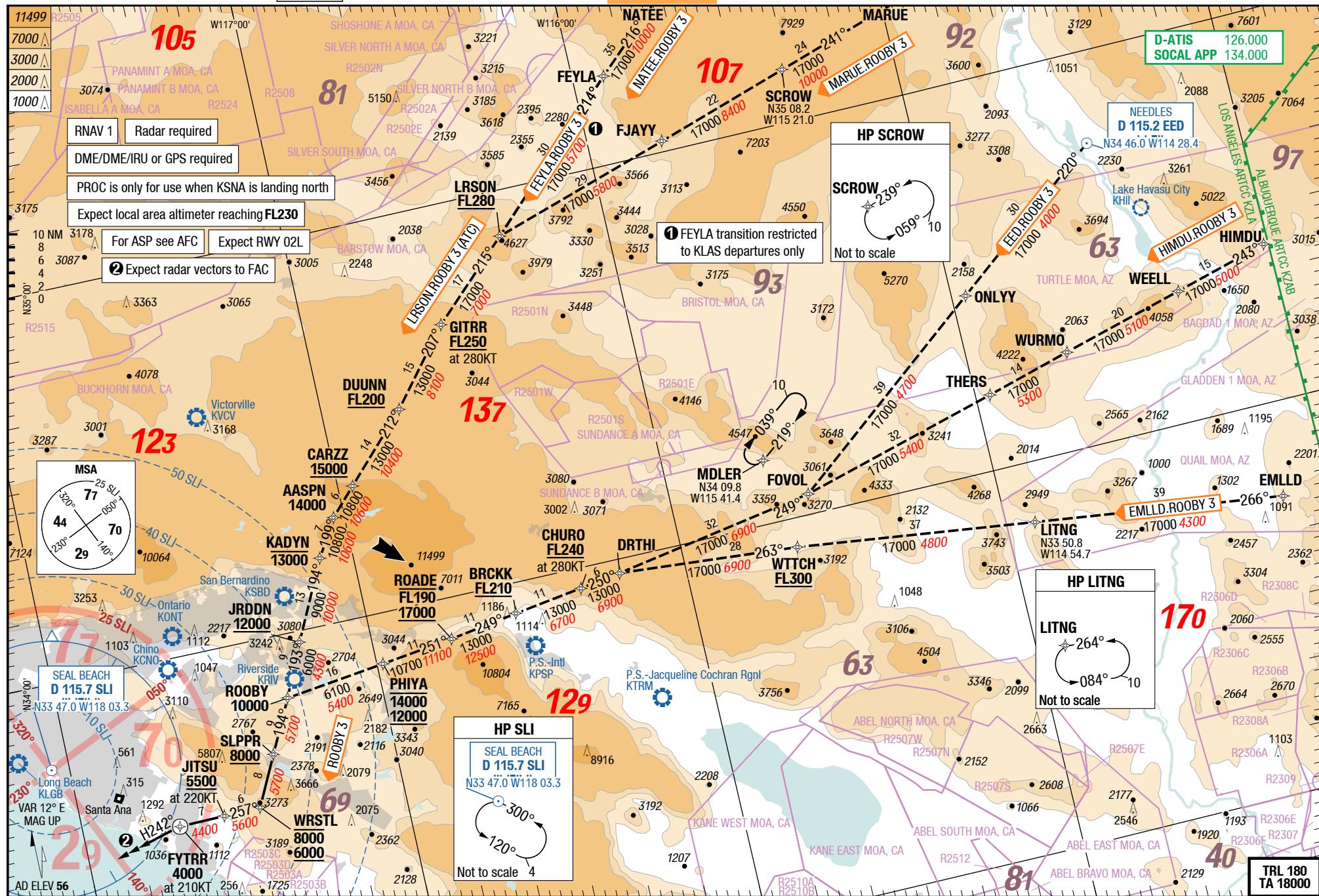
SNA-KSNA

6-30

**ROOBY 3 RNAV**

STAR

ROOBY 3 RNAV



Changes: WPT CHURO, Note, PROC renumbered, Editorial

6-40

TILLT 2 RNAV

STAR

John Wayne Airport-Orange County **Santa Ana** United States

D-ATIS 126.000  
SOCAL APP 127.400

RNAV 1 required Radar required

DME/DME/IRU or GPS required Expect RWY 20R

Expect RNAV (RNP) Z 20R or radar vectors to FAC

PROC to RWY 02L after BAUBB by ATC only

Expect RNAV (RNP) Z 02L or radar vectors to FAC

Not to scale

VAR 12° E MAG UP

AD ELEV 56

TRL 180 TA 18000

Effective 01-FEB-2018

25-JAN-2018

United States Santa Ana John Wayne Airport-Orange County

TANDY 4

STAR  
KAYOH 7

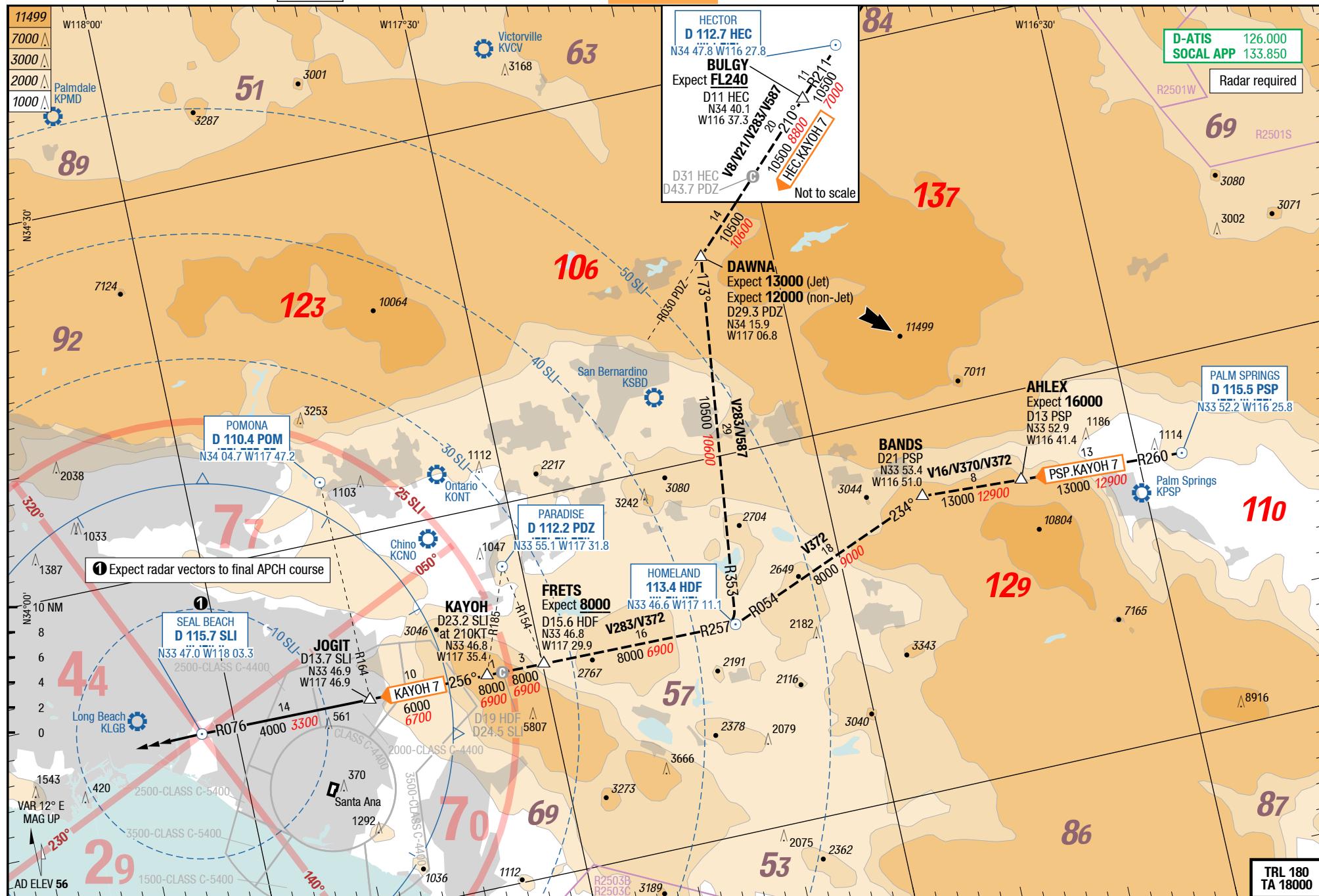
6-50

John Wayne Airport-Orange County Santa Ana United States

TANDY 4

STAR  
KAYOH 7

SNA-KSNA



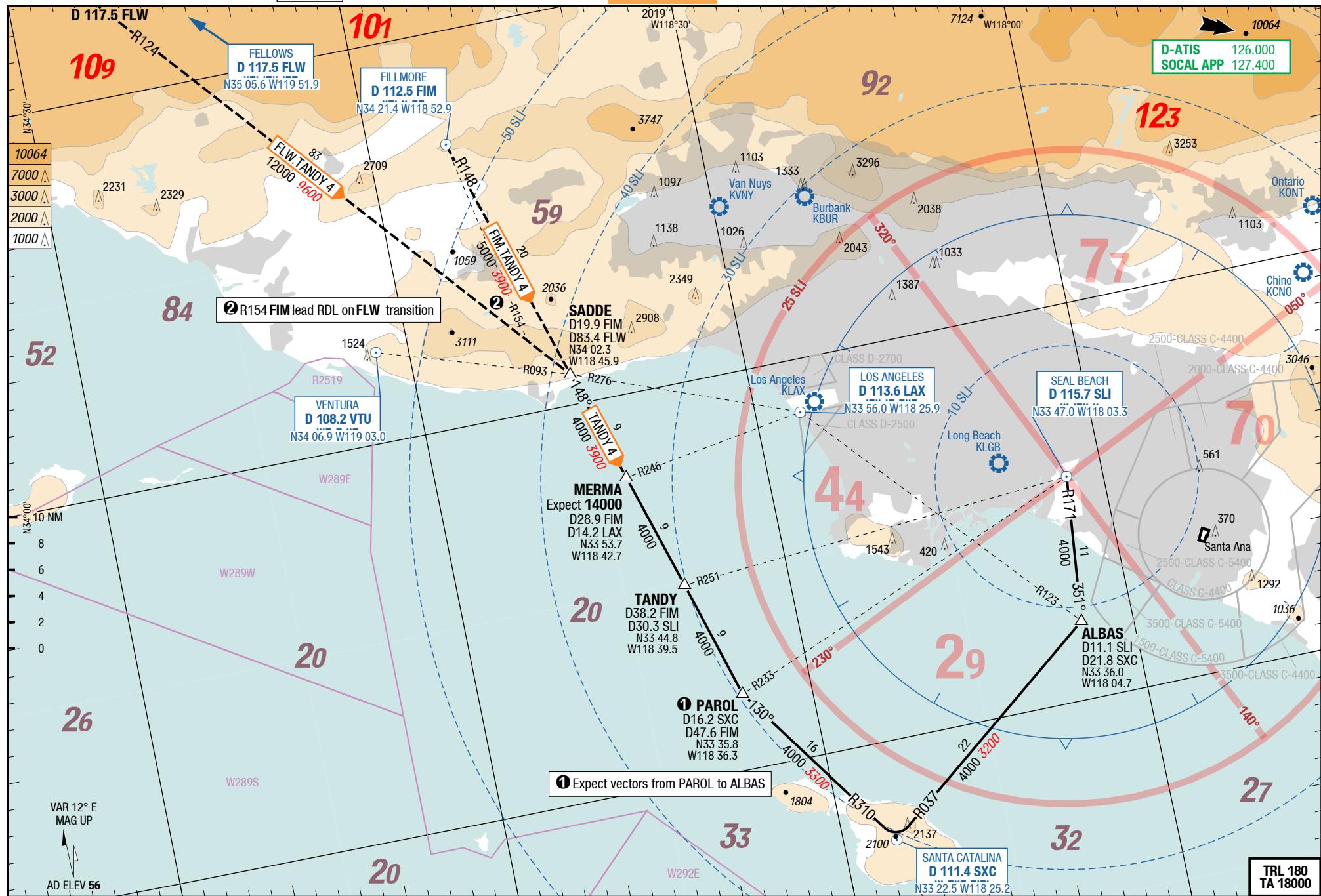
6-60

**TANDY 4**

10

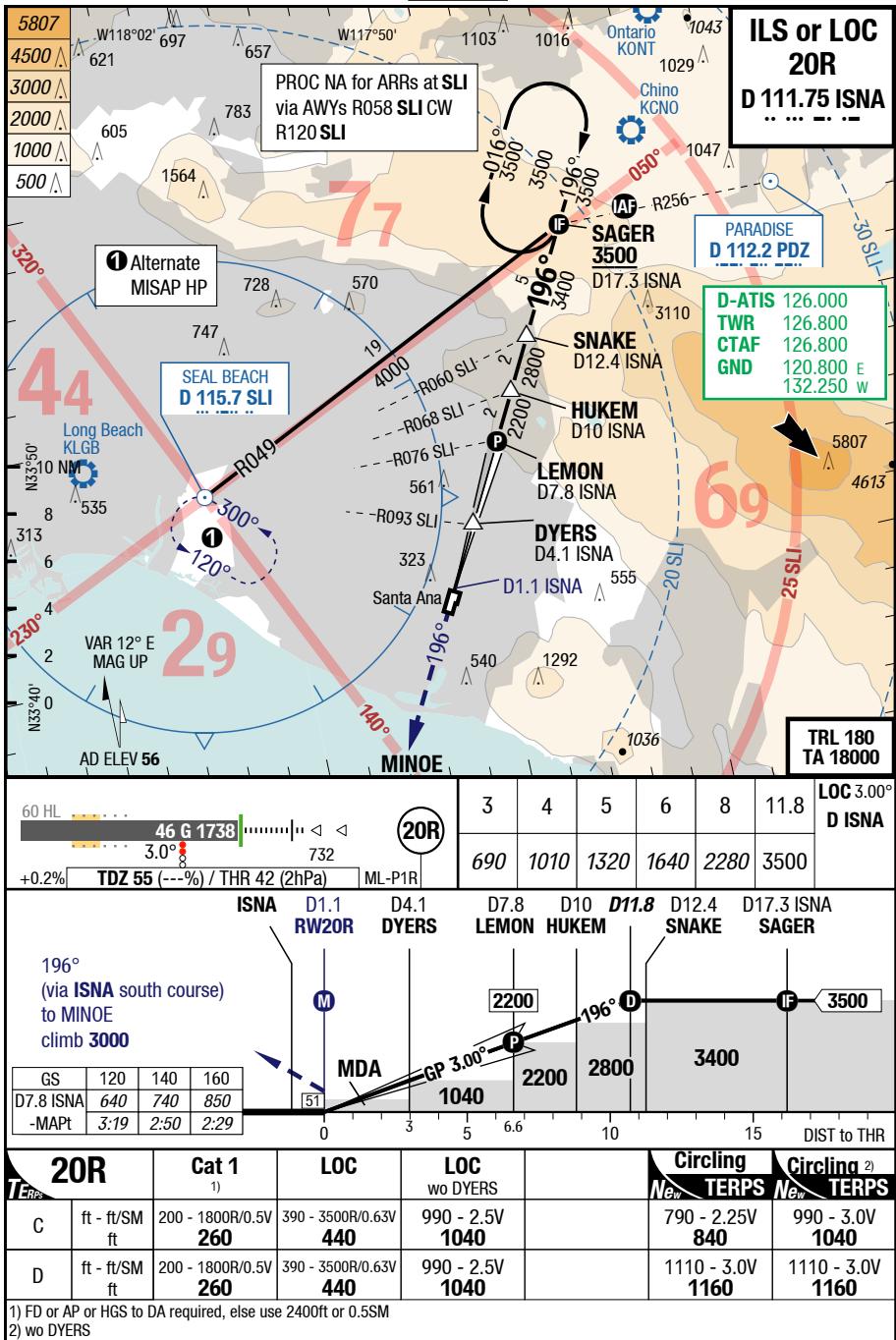
Joh  
TA

TANDY 4



7-10

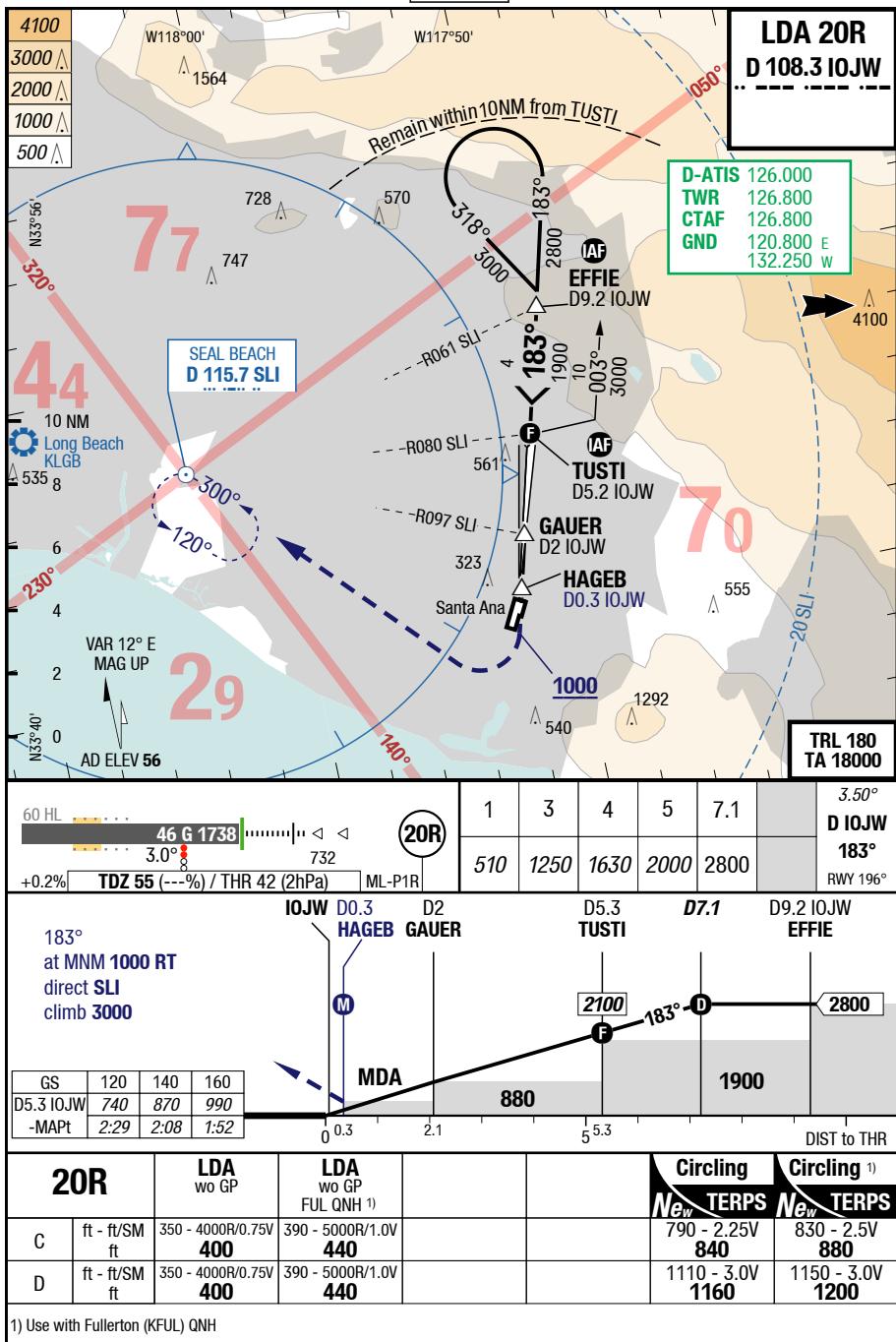
**ILS or LOC 20R**



## SNA-KSNA

7-20

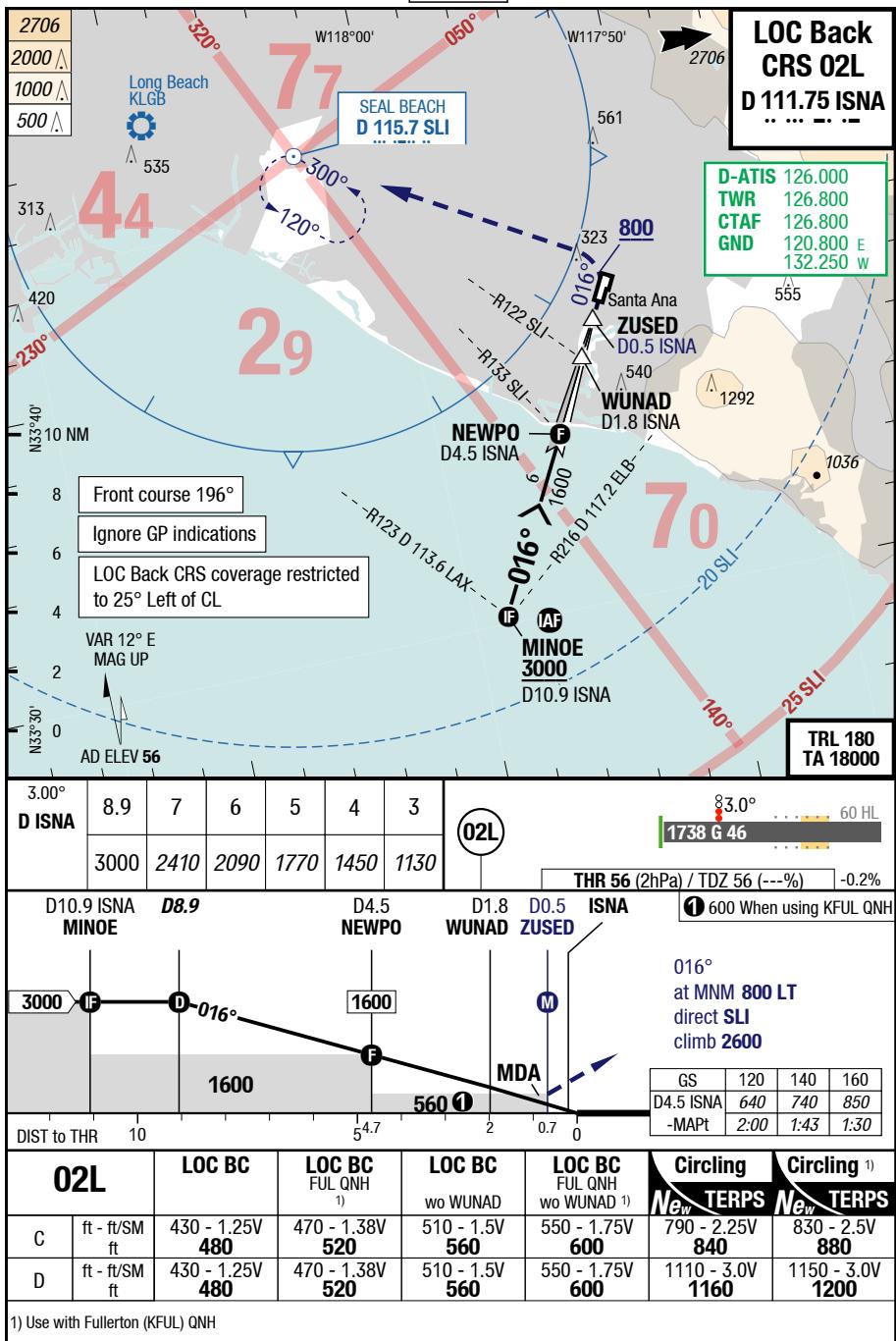
LDA 20R



## SNA-KSNA

7-30

## LOC Back CRS 02L



**Effective: 10-NOV-2016**

United States Santa Ana John Wayne Airport-Orange County  
RNAV (RNP) Z 20R

## SNA-KSNA

**7-50**

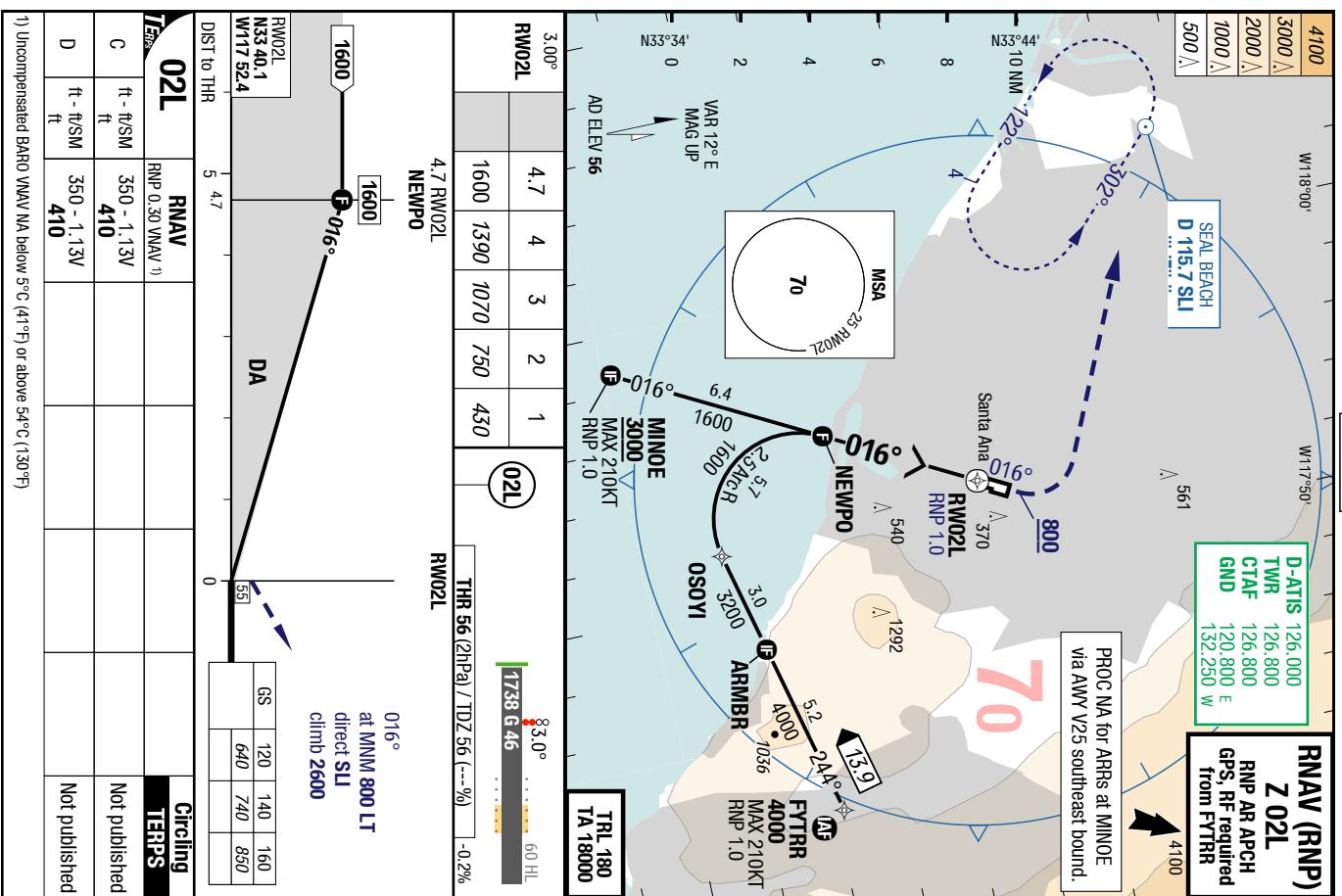
**RNAV (RNP) Z 02L**

**IAC**

**IAC**

**RNAV (RNP) Z 02L**

John Wayne Airport-Orange County Santa Ana United States  
RNAV (RNP) Z 20R



Changes: new

Orig

SNA-KSNA

RNAV (RNP) Z 20R

RNAV (RNP) Z 20R

**RNAV (RNP)  
Z 20R  
RNP AR APCH  
GPS, RF required  
from KLEVR**

**ATIS** 126.000  
**VR** 126.800  
**AF** 126.800  
**ID** 120.800 E  
132.250 W

Radar required  
for PROC entry

1

607

卷之三

**TRL 180  
TA 18000**

3.00°  
**RW20**

4.1 RW20R  
**ZETOV**  
**1400**

196° F 1400  
RW23  
N33 40  
W117 51

W117 51  
4.1 DIST to TH

	Not published
	Not published

60 HL  46 G 1738 ▶◀ 732 **20R**  
3.0% **TDZ 5E** (-%) / TUD 42 (2bPa) ML P1B

+0.2% TDZ 55 (---%) / THR 4Z (THRd) ML-PIR  
**RW20R**

climb 3000

<b>20R</b>	<b>RNAV</b> RNP 0.11 VNAV <sup>1)</sup>	<b>RNAV</b> RNP 0.15 VNAV <sup>1)</sup>	<b>P</b> RNP 0
<b>TE<sub>RP</sub></b>			

C	ft - ft/SM ft	330 - 3000R/0.63V <b>380</b>	510 - 1.25V <b>570</b>	570
D	ft - ft/SM ft	330 - 3000R/0.63V <b>380</b>	510 - 1.25V <b>570</b>	570

1) Uncompensated BARO VNAV NA below 5°C (41°F) or above 54°C (130°F)

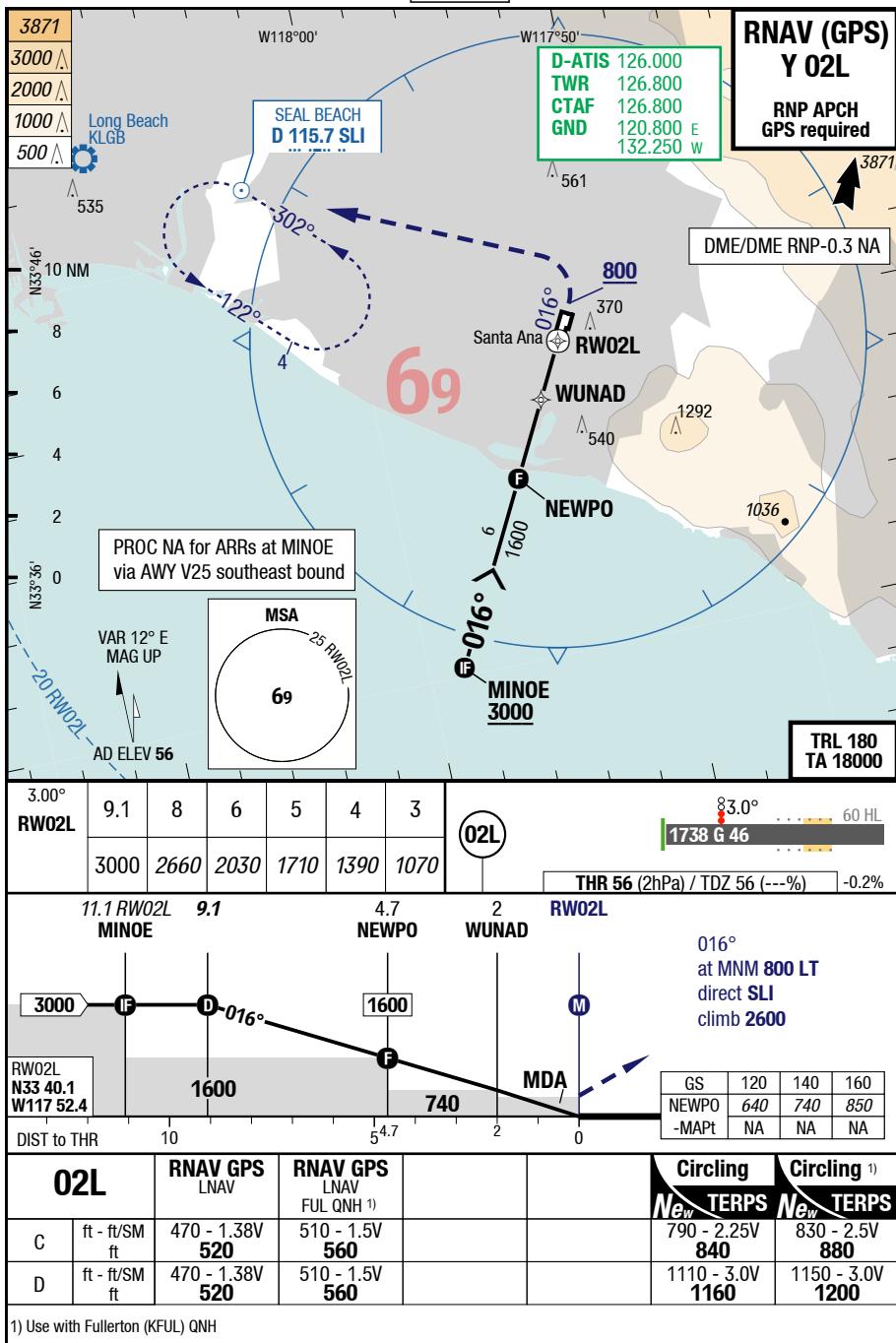
**Changes:** Completely revised

## SNA-KSNA

7-70

## RNAV (GPS) Y 02L

IAC



## SNA-KSNA

7-80

## RNAV (GPS) Y 20R

