

LAX Los Angeles International Airport

LGB Long Beach Airport (Daugherty Field)

ONT Ontario International Airport

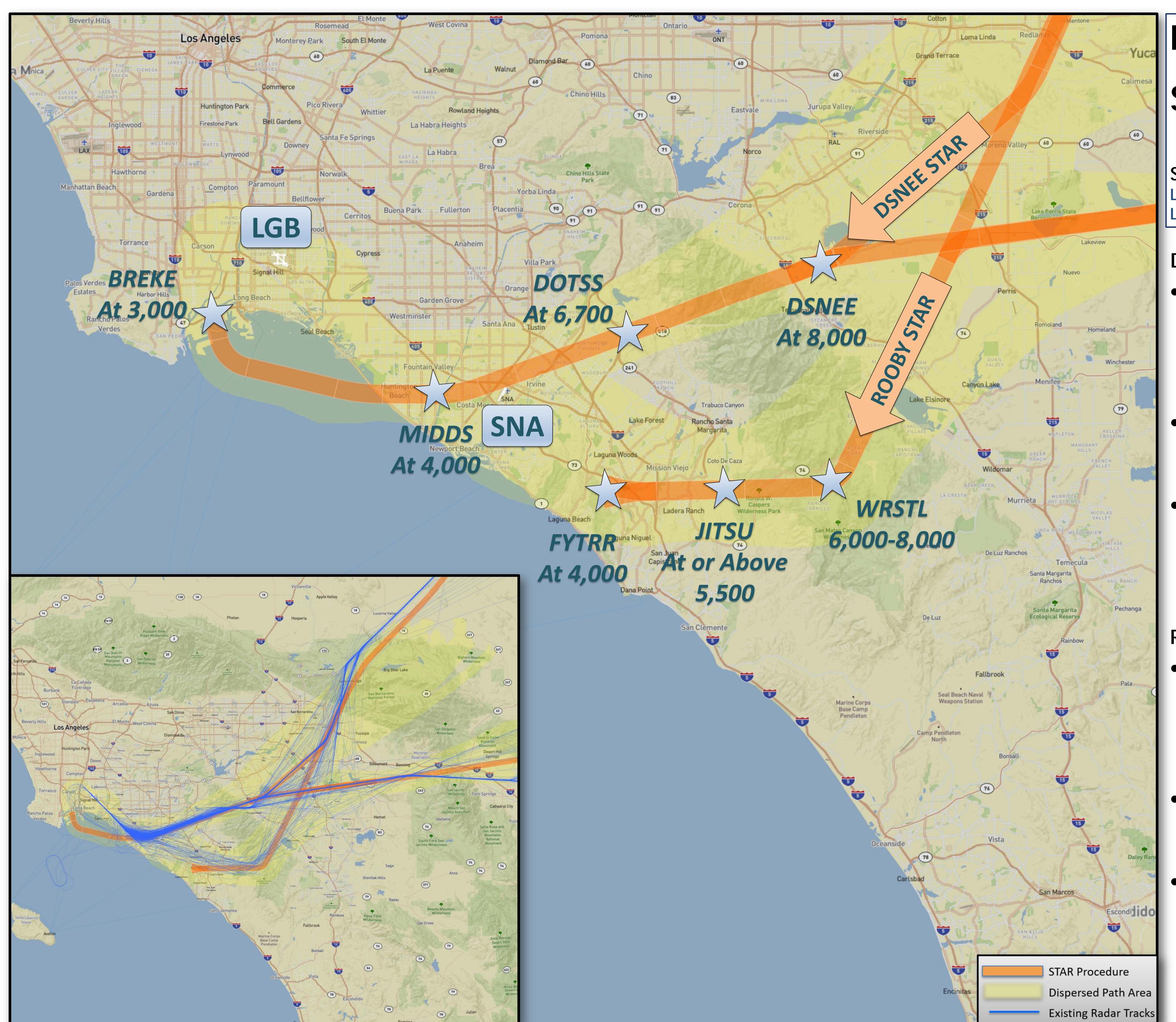
John Wayne-Orange
County Airport

STAR (Arrival)
LAX GOATZ ONE RNAV STAR
ONT KARLB ONE RNAV STAR
LGB BAUBB ONE RNAV STAR
LGB PCIFC ONE RNAV STAR
SNA OHSEA ONE RNAV STAR
SNA TILLT ONE RNAV STAR

- New STAR designs for LAX, LGB, ONT, and SNA arrivals from over the ocean
- Designed to limit interactions with other departure and arrival procedures in the Southern California area
- GOATZ and KARLB allow aircraft to be as much as 7,000 feet higher over Catalina Island
- GOATZ, PCIFC, OHSEA, and TILLT STARs tie into new RNP approaches

FAA





LGE

Long Beach Airport (Daugherty Field)

SNA

John Wayne-Orange County Airport

# STAR (Arrival)

LGB/SNA DSNEE ONE RNAV STAR LGB/SNA ROOBY ONE RNAV STAR

#### **DSNEE ONE**

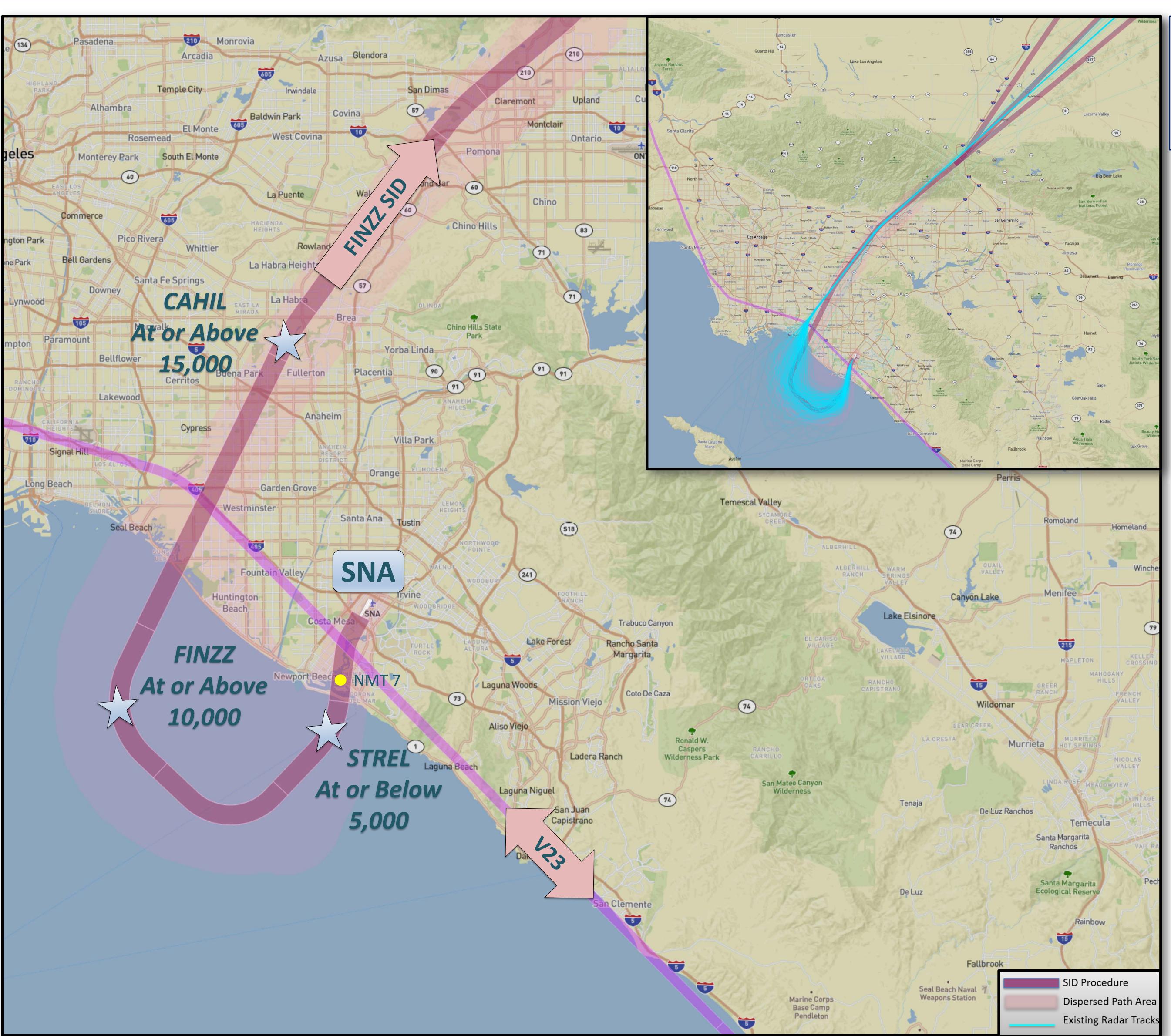
- Replaces the LGB/SNA KEFFR STAR with OPD benefits for SNA south flow arrivals landing Runway 20R and LGB arrivals
- Deconflicted from the BUR/VNY THRNE and the ONT EAGLZ and SCBBY STARs
- Vertical restrictions were added to deconflict from other STARs and SIDs including the LAX ANJLL STAR

#### **ROOBY ONE**

- Replaces the LGB/SNA KEFFR STAR with OPD benefits for SNA north flow arrivals landing Runway 02L and LGB arrivals
- Deconflicted from the BUR/VNY THRNE and the ONT EAGLZ and SCBBY STARs
- Altitude restrictions were added to deconflict from other STARs and SIDs including the LAX ANJLL STAR







SID (Departure) SNA FINZZ ONE RNAV SID

# FINZZ ONE

- The current MUSEL SID is a conventional procedure relying on ground based navigation
- Serves SNA Runway 20R departures to the northeast
- Deconflicted from overflight traffic on V23





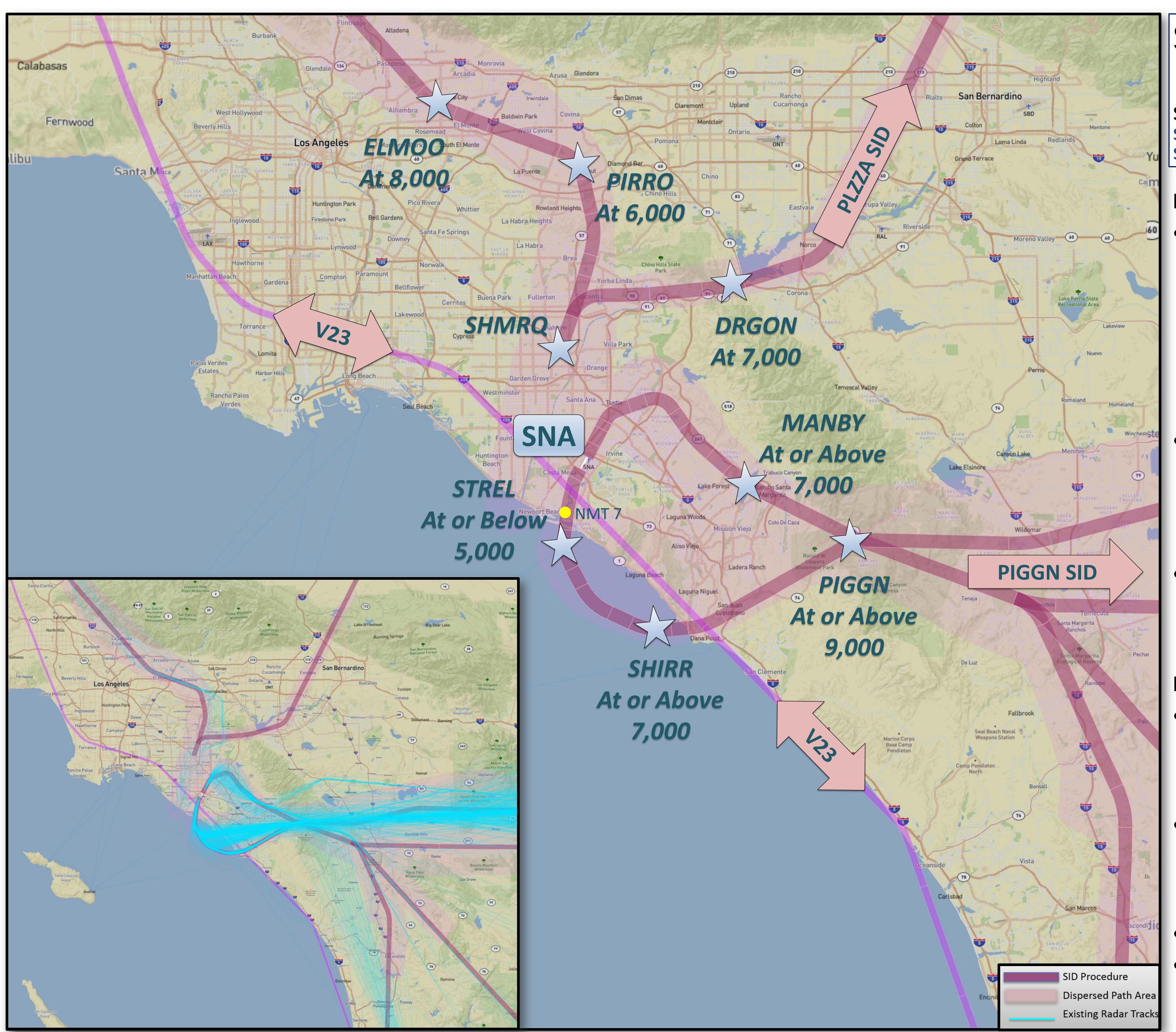


SID (Departure) SNA HHERO ONE RNAV SID

# HHERO ONE

- The current CHANL SID is a conventional procedure relying on ground based navigation
- Serves Runway 20R departures to the north
- Deconflicted from the LAX GOATZ, LGB BAUBB, and SNA TILLT STARS
- Deconflicted from overflight traffic on V23





SNA

John Wayne-Orange County Airport

SID (Departure)
SNA PIGGN ONE RNAV SID
SNA PLZZA ONE (Props) RNAV SID

#### **PIGGN ONE**

- Replaces the STREL SID off of Runway 20R for eastbound departures and provides a SID for Runway 02L where there is no current departure procedure for east/southeast bound flights
- Altitude restrictions were added to the procedure to deconflict with V23, the ONT RAJEE SID, and the LAX SNSST STAR
- Lateral tracks were designed in conjunction with the LAX DOTTS, LGB FRITR, and SMO PEVEE SIDs

#### PLZZA ONE

- The Metroplex Team developed the PLZZA as an RNAV SID for aircraft filed to the northwest and northeast
- Altitude restrictions were added to the procedure to reduce interactions with LAX and SMO arrivals
- Serves prop departures
- Will reduce chart clutter, increase efficiency, and reduce complexity



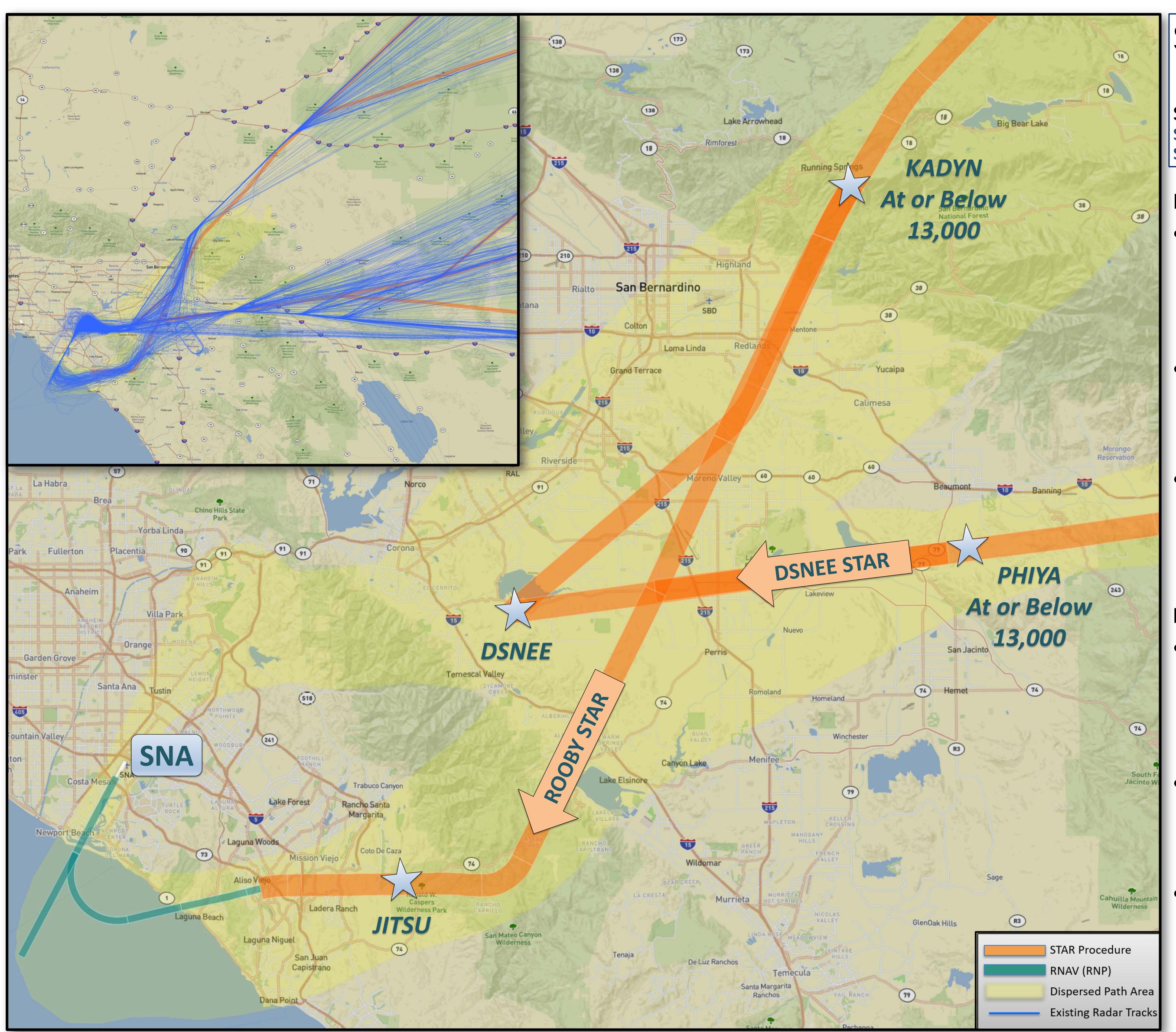




SID (Departure) SNA Runway 20R RNAV SIDs

- Current Runway 20R RNAV SID is designed to overfly Noise Monitor 7 (NM7/TOING waypoint)
- Currently, aircraft have difficulty navigating directly over NM7/TOING waypoint
- Metroplex Team developed a procedure that joins a course to STREL that flies over NM7 without TOING waypoint
  - SID provides a more repeatable ability to overfly NM7
- NOTE: Some aircraft may be radar vectored for separation purposes
- Procedure will be monitored and examined post-implementation





STAR (Arrival) SNA DSNEE ONE RNAV STAR SNA ROOBY ONE RNAV STAR

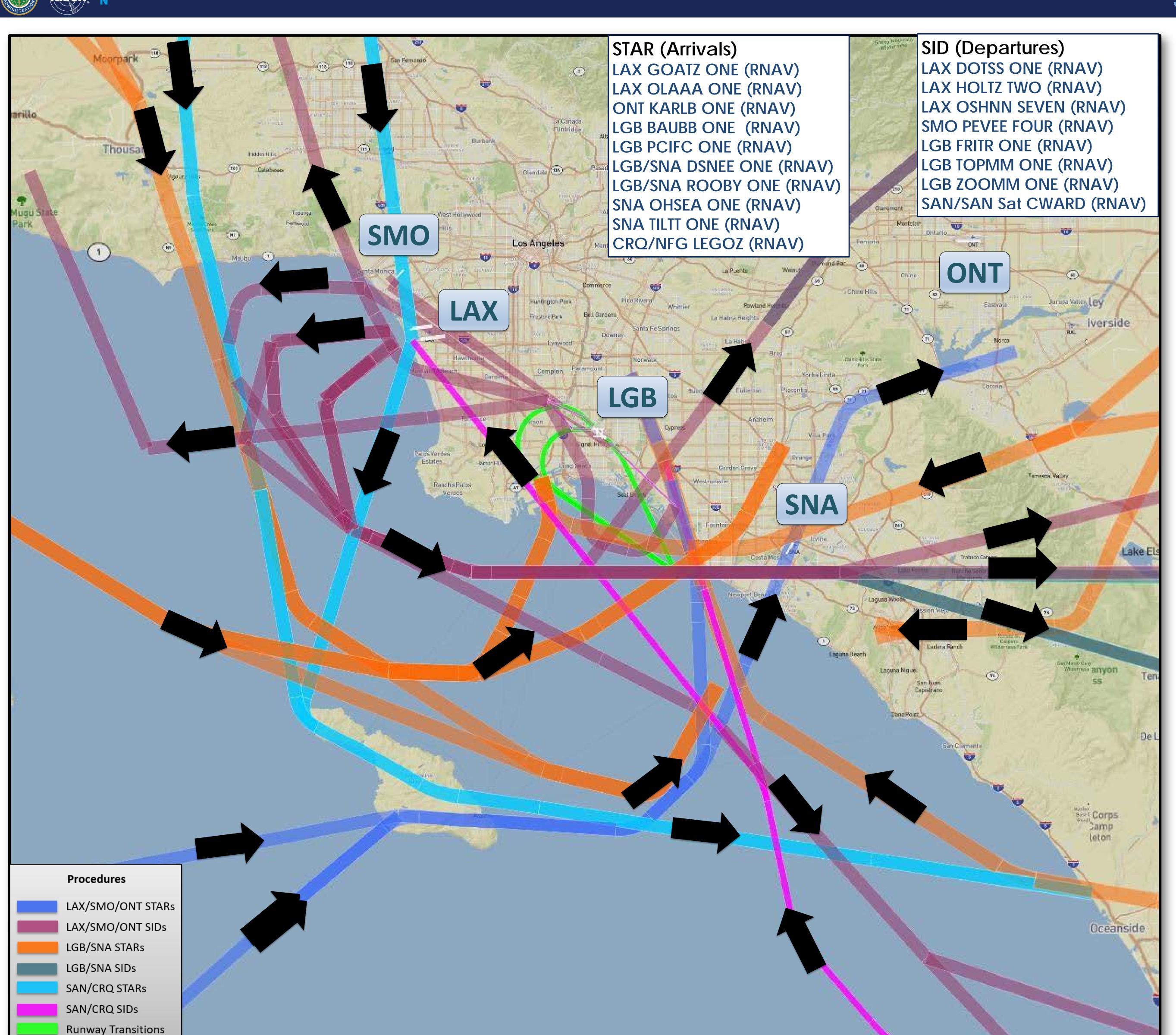
# **DSNEE ONE**

- Replaces the SNA/LGB KEFFR STAR with OPD benefits for SNA south flow arrivals landing Runway 20R and LGB arrivals
- Deconflicted from the BUR/VNY THRNE, and the ONT EAGLZ and SCBBY STARs
- Vertical restrictions were added to deconflict from other STARs and SIDs including the LAX ANJLL STAR

# **ROOBY ONE**

- Replaces the SNA/LGB KEFFR STAR with OPD benefits for SNA north flow arrivals landing Runway 02L and LGB arrivals
- Deconflicted from the BUR/VNY THRNE, and the ONT EAGLZ and SCBBY STARs
- Altitude restrictions were added to deconflict from other STARs and SIDs including the LAX ANJLL STAR





LAX Los Angeles International Airport
ONT Ontario International Airport
SMO Santa Monica Municipal Airport
LGB Long Beach Airport
(Daugherty Field)
SNA John Wayne – Orange County Airport
SAN San Diego International
CRO Mc Clellan-Palomar
Airport

The Design of all procedures into and out of Southern California airports was affected by many factors including:

- Traffic flows into and out of other airports
- Military and special use airspace restrictions
- Aircraft performance
- Terrain
- Class B airspace
- Existing noise procedures