



SBA Instrument Flight Procedure Optimization Study

August 17, 2026





Overview

A total of eight procedures were evaluated to assess the full range of routes and supported aircraft.

Approaches

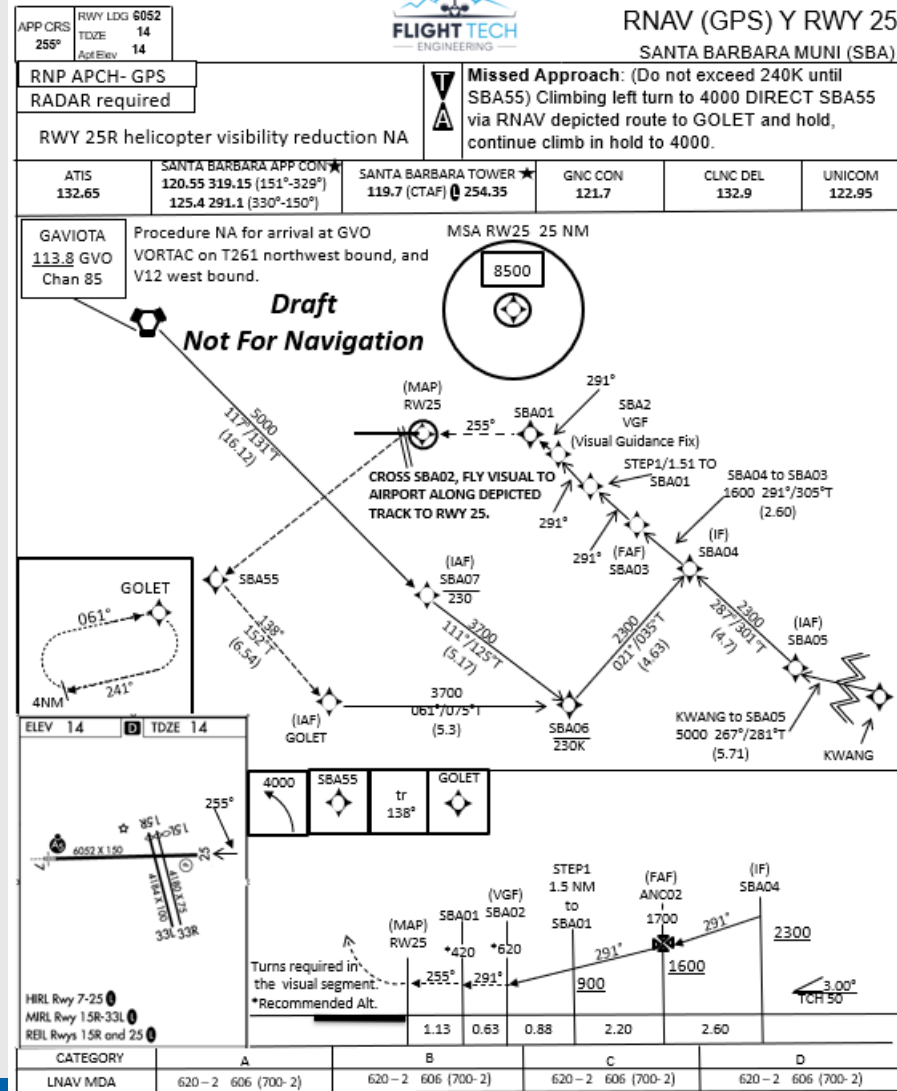
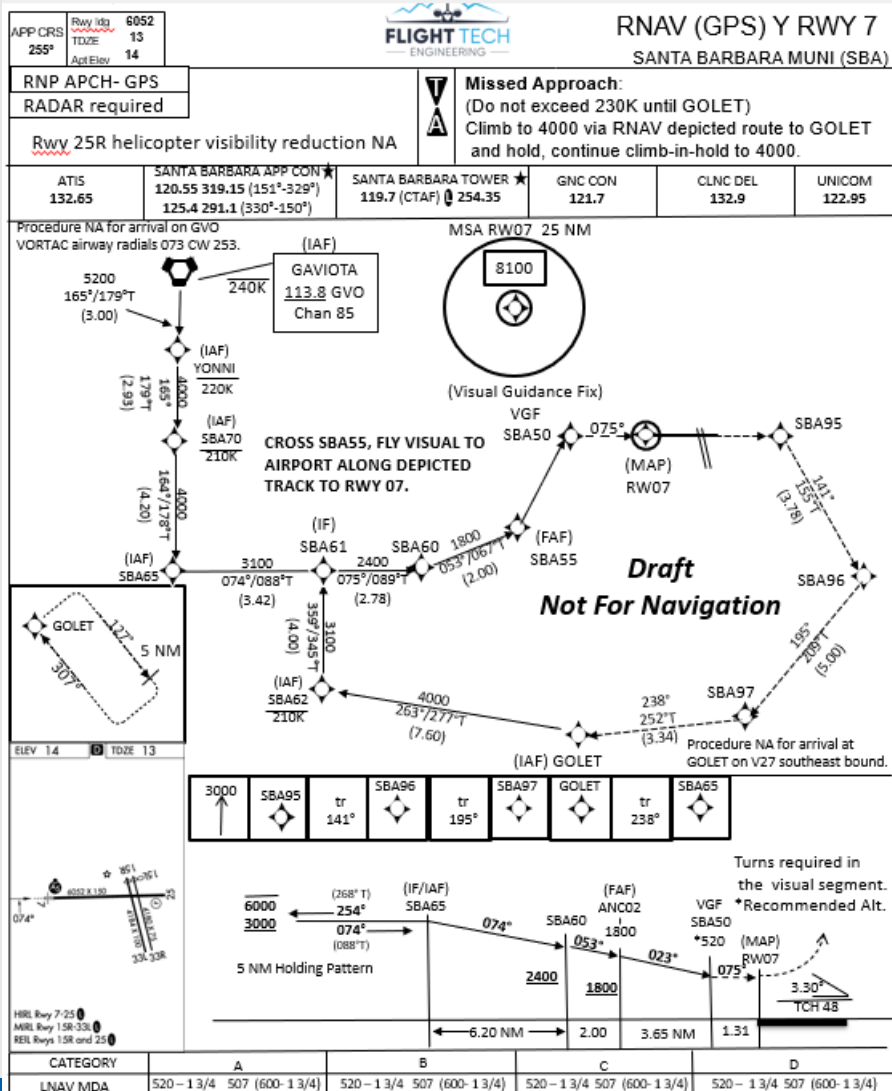
- 1) RNAV (GPS) Y RWY 07 (Visual Guidance Fix /VGF)
- 2) RNAV (GPS) Y RWY 25 (Visual Guidance Fix /VGF)
- 3) RNAV (GPS) X RWY 25 (LPV – 3 Degree Offset)
- 4) RNAV (GPS) Z RWY 25 (LNAV/VNAV – 15 degree offset)
- 5) RNAV (RNP-AR) RWY 07
- 6) RNAV (RNP-AR) RWY 25

Departures:

- 1) GOLETA Departure (RNAV w/ turn point optimization)
- 2) KNZZI Departure (RNAV w/ turn point optimization)



Visually Guided Segment Procedures





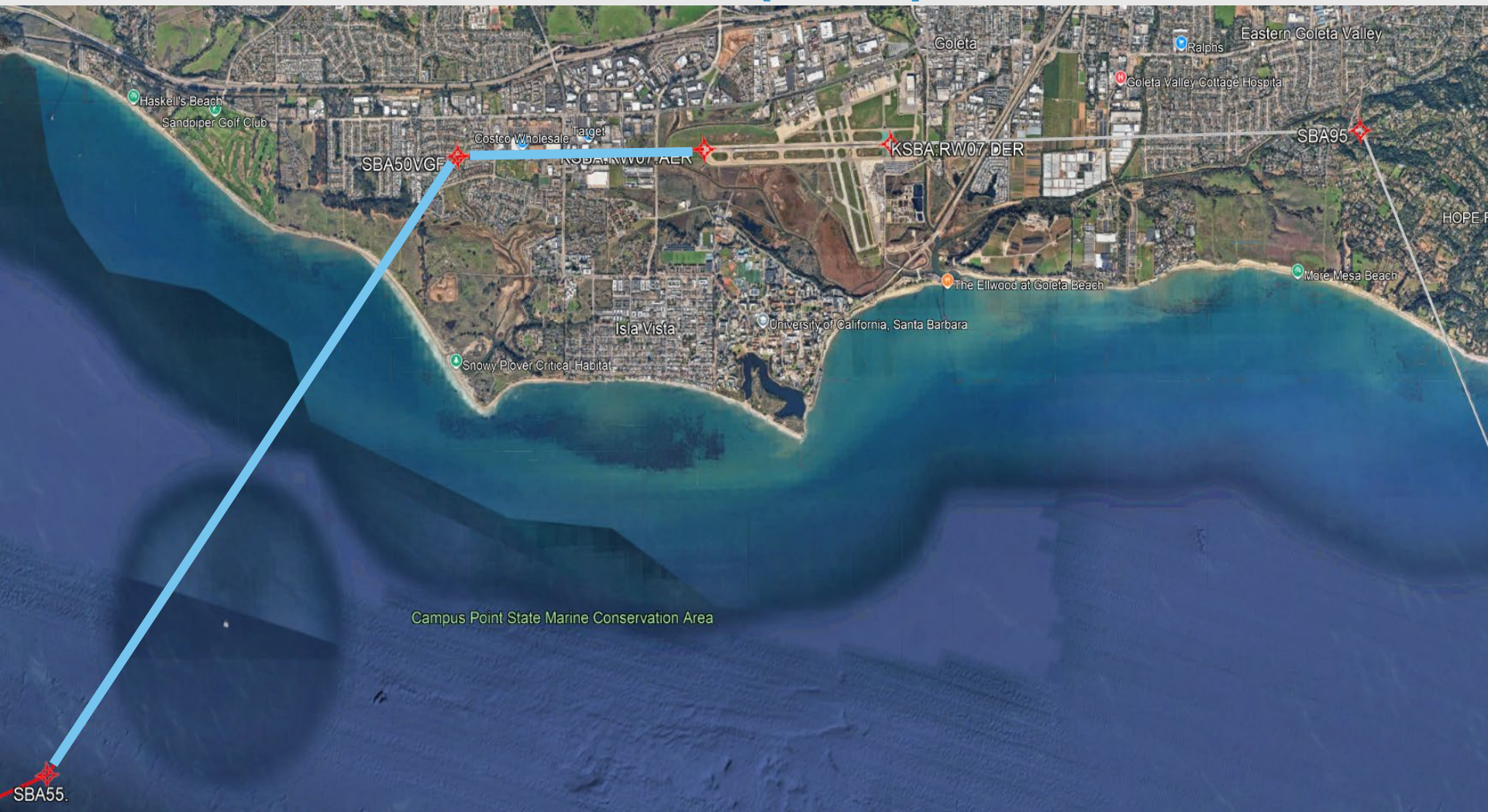


Visually Guided Procedure RNAV (GPS) Y RWY 7 VGF

Procedure Development Background/Benefits/Mitigations:

- ✓ RNAV (GPS) Y RWY 7 remains mainly over water, and freeways and industrial areas.
 - Design allow for arrivals from the west
- ✓ Keeps SBA traffic away from current straight-in final, many residential areas leading to the airport

SBA RNAV Y (VGF) RWY 7





Visually Guided Procedure RNAV (GPS) Y RWY 25 VGF

Procedure Development Background/Benefits/Mitigations:

- ✓ The proposed RNAV (GPS) RWY Y 25 utilizes a turning visual segment to avoid the most sensitive areas.
- ✓ Can be flown by a navigation system capable of standard RNAV (GPS) procedures with Lateral Navigation (LNAV) minima.
- ✓ It will be useable by the majority of air carrier and G.A. aircraft.
- ✓ This procedures prioritizes the preferred noise mitigation path versus the best IFR Minimums. (Follow-on procedures are proposed for use in low IFR conditions)
- ✓ The turns within the final visual segment are called 'Visual Guidance Fixes' or VGF.

SBA RNAV Y (VGF) RWY 25 - FAF to the RWY





SBA RNAV X RWY 25

Santa Barbara, California

RNAV (GPS) RWY 25

SBAS Chan 12345 W25A	APCH CRS 250	Rwy Idg TDZE Appt Elev	6083 14 14
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(FLIGHT TECH)

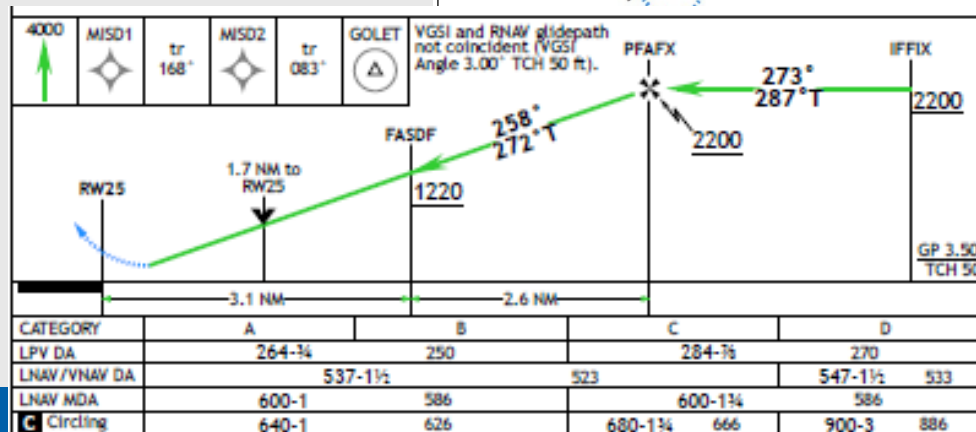
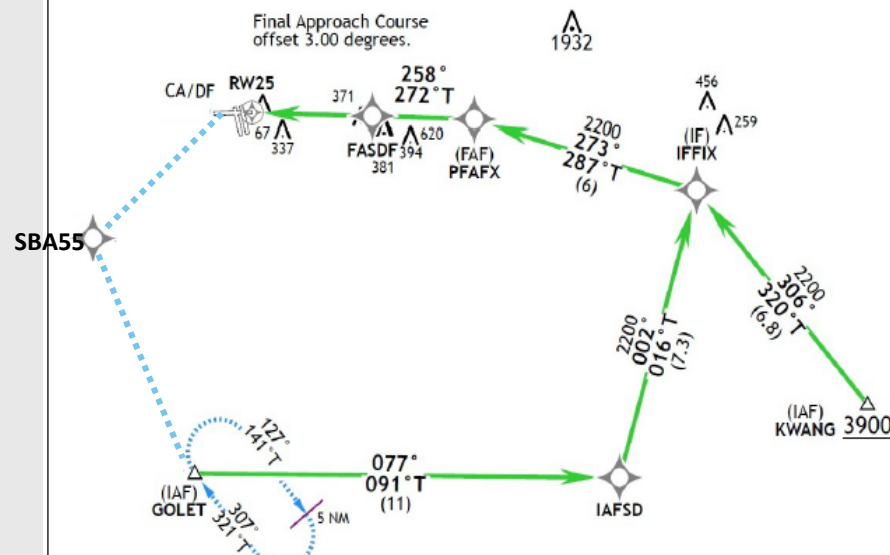
SANTA BARBARA MUNI (KSB)

RNP APCH - GPS.

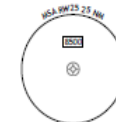
Baro-VNAV NA.
LNAV Rwy 25 helicopter visibility reduction below 3/4 SM not authorized.
LPV Rwy 25 helicopter visibility reduction below 3/4 SM not authorized.
For uncompensated Baro-VNAV systems, LNAV/VNAV NA below -15° C or above 48° C.
Circling to Rwy 33L, 33R NA at night.
Circling NA on RWY 7-25.

MISSSED APPROACH: CLIMB TO 500 THEN LEFT CLIMBING TURN TO 4000 MSL DIRECT SBAS5, THEN TRACK 138° TO GOLET AND HOLD. (MAINTAIN 210K UNTIL SBAS5)

ATIS 132.65	SBA APP CON 120.55	SANTA BARBARA TOWER 119.7	GND CON 121.7	CLNC DEL 132.9
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Fix Name	Latitude	Longitude
GOLET	3416.881 N	11951.863 W
IAFSD	3416.769 N	11938.602 W
KWANG	3418.547 N	11930.849 W
IFFIX	3423.795 N	11936.174 W
PFAFX	3425.514 N	11940.123 W
FASDF	3425.589 N	11946.309 W
RW25	3425.675 N	11950.075 W
MSD1	3425.967 N	12003.465 W
MSD2	3418.110 N	12003.854 W



SANTA BARBARA MUNI (KSB)

RNAV (GPS) RWY 25



RNAV X RWY 25 LPV / All weather option

RNAV (GPS) X RWY 25 Lateral Proc. w/Vertical Guidance
(LPV) 3° Offset V3

- The proposed RNAV (GPS) X RWY 25 procedure prioritizes all weather operations in Instrument Meteorological Conditions (IMC).
- The maximum offset angle is 3 degrees, which requires overflight of more residential areas, however the result is a procedure that meets standard criteria for an all-weather approach.
- To mitigate impacts, operators could be encouraged to only use the RNAV (GPS) X RWY 25 when weather conditions require.

SBA RNAV X RWY 25





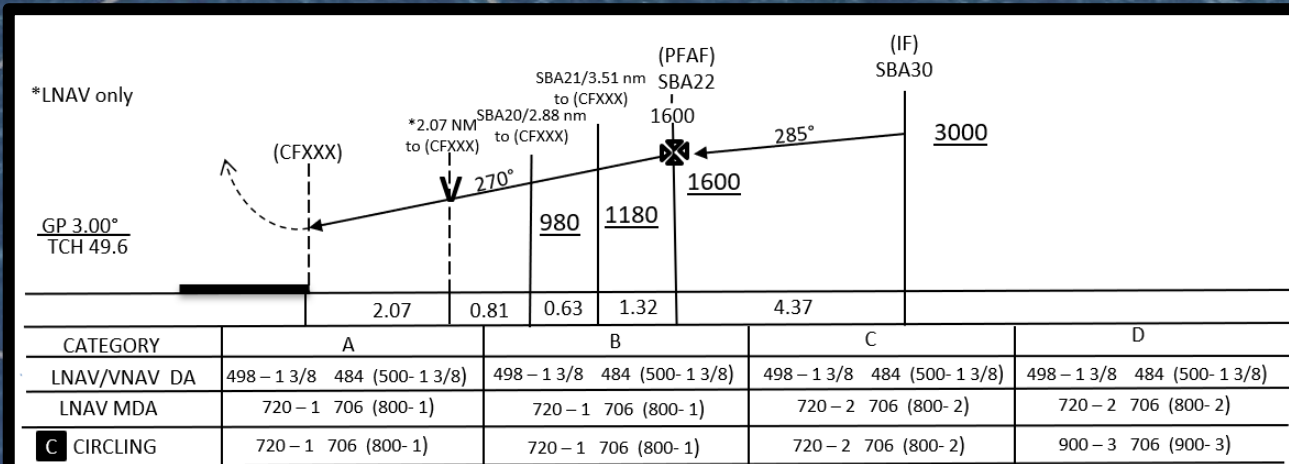
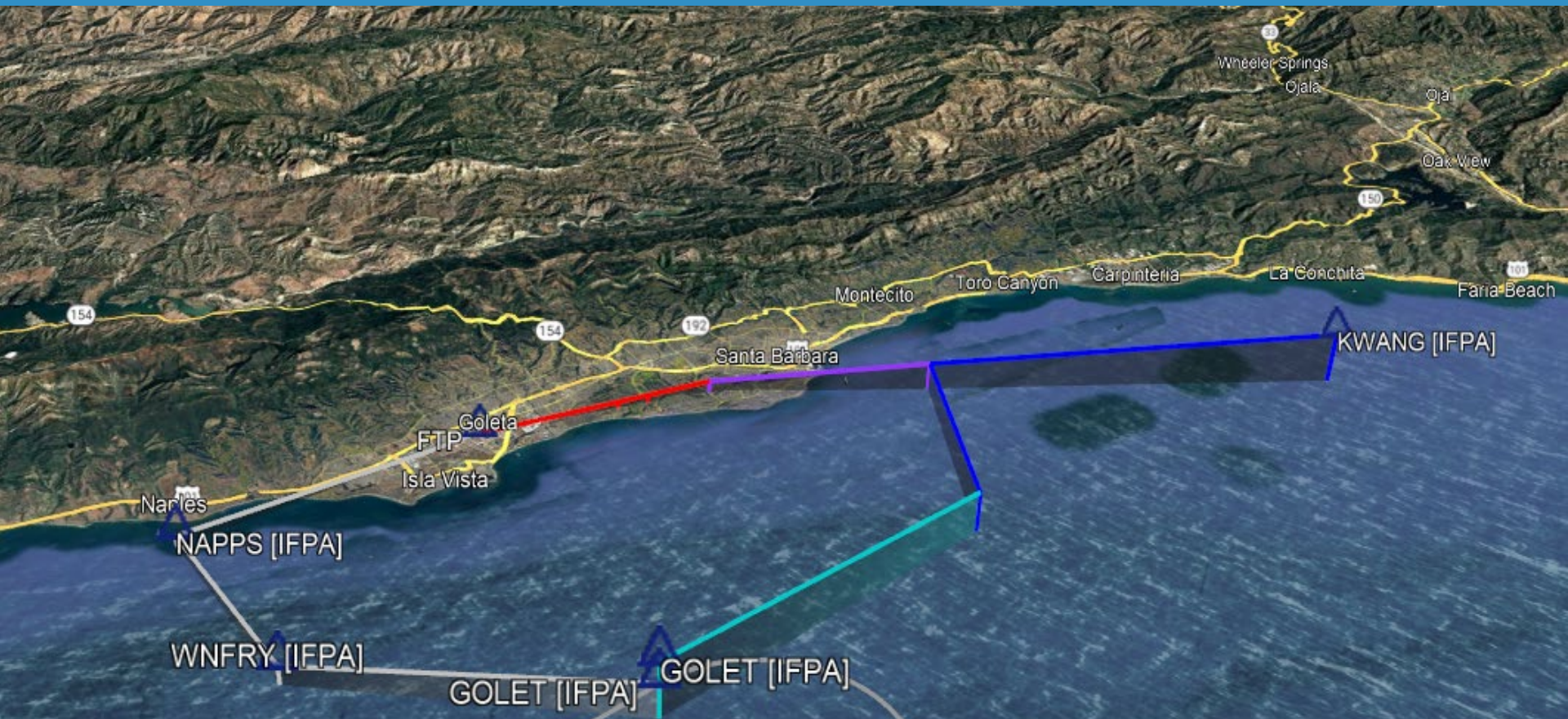
RNAV (GPS) Z RWY 25

LNAV/VNAV – 15 Deg Offset

Procedure Development Background/Benefits/Mitigations:

- The RNAV (GPS) Z RWY 25 proposal is a standard GPS procedure with LNAV/VNAV & LNAV minimums.
- By limiting to LNAV/VNAV & LNAV only it allows a maximum offset of 15 degrees.
- It's a middle ground (balance) between IFR & Visual Guidance Fix procedure weather minimums.
- The procedure is flyable by airlines and G.A.
- The 15 degree offset means it's not aligned with runway centerline, so it's less preferable for larger airline operations, but still useable.

RNAV (GPS) Z RWY 25 LNAV/VNAV – 15 Deg Offset V2



RNAV (GPS) Z RWY 25 LNAV/VNAV – 15 Deg Offset V2





RNAV RNP-AR 7 & 25 / PBN alternatives

- Two additional procedures utilizing RNP-AR standards were evaluated based on meeting feedback.
- These are the most advanced procedure types resulting in demanding aircraft equipage and training requirements—thus useable only by larger mainline aircraft types.
- Design allows for a curved path up to 500' AGL.
- These were evaluated using standard FAA regulations to allow for public use, which differs from the proprietary Alaska Air RNP procedures.

RNAV (RNP) RWY 7





RNAV (RNP) RWY 7



RNAV (RNP) RWY 25



ASA Existing Special

RNAV (RNP) RWY 25



SBA GOLETA ONE

Departure Procedure

Mirrors Current “MISHN” departure procedure (with a few changes):

RWY 7: New ground path design:

- ✓ SE path segment - Less residential/sensitive area overflight with aircraft at climb power.
- ✓ Adds very few track miles to the departure procedure.

RWYs 15L/R: Reflects no change to the current MISHN procedure.

RWY 25: New ground path design:

- ✓ SE path segment - Less residential/sensitive area overflight with aircraft at climb power.
- ✓ Adds very few track miles to the departure procedure.

GOLETA Departure

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 7: Climb on heading 075° to intercept course 110° to SBA03, then on track 136° to WP7299 then on track 133° to MISHN, thence. . .

TAKEOFF RUNWAYS 15L/R: Climb direct JEHTT, then on track 119° to MISHN, thence. . .

TAKEOFF RUNWAY 25: Climb on heading 255° to intercept 206° to WP7611 then on track 155° DNKYY, then on track 085° to MISHN, thence....

.... on (transition). Maintain ATC assigned altitude. Expect final altitude 10 minutes after departure.

BOILE TRANSITION (GOLETA1.BOILE)

IKAYE TRANSITION (GOLETA1.IKAYE)

KPTIN TRANSITION (GOLETA1.KPTIN)

NNAVY TRANSITION (GOLETA1>NNAVY)

SANTA CATALINA TRANSITION (GOLETA1.SXC)

SANTA BARBARA DEP CON

120.55 319.15

ATIS

132.65

CLNC DEL

132.9

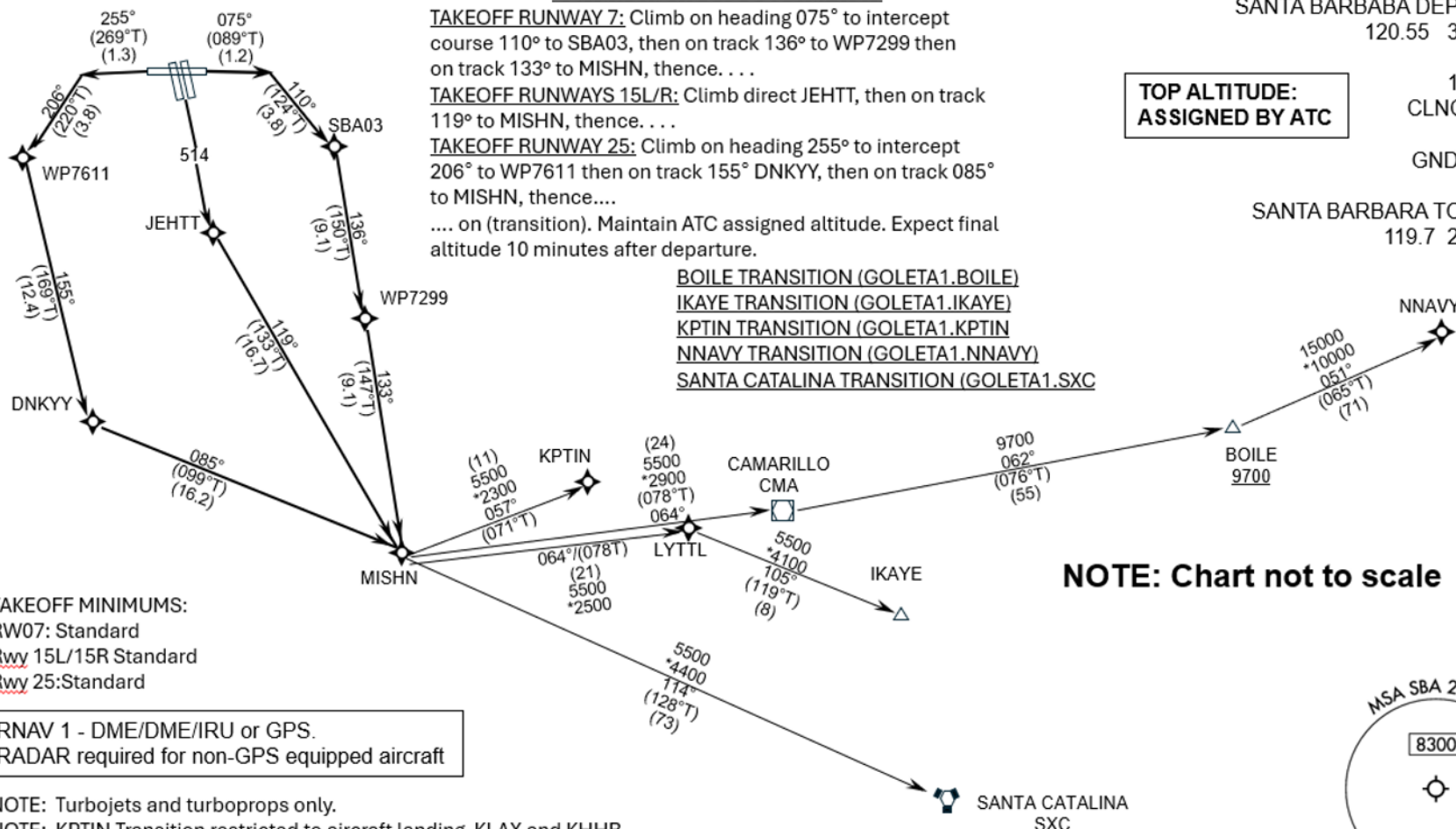
GND CON

121.7

SANTA BARBARA TOWER★

119.7 254.35

**TOP ALTITUDE:
ASSIGNED BY ATC**

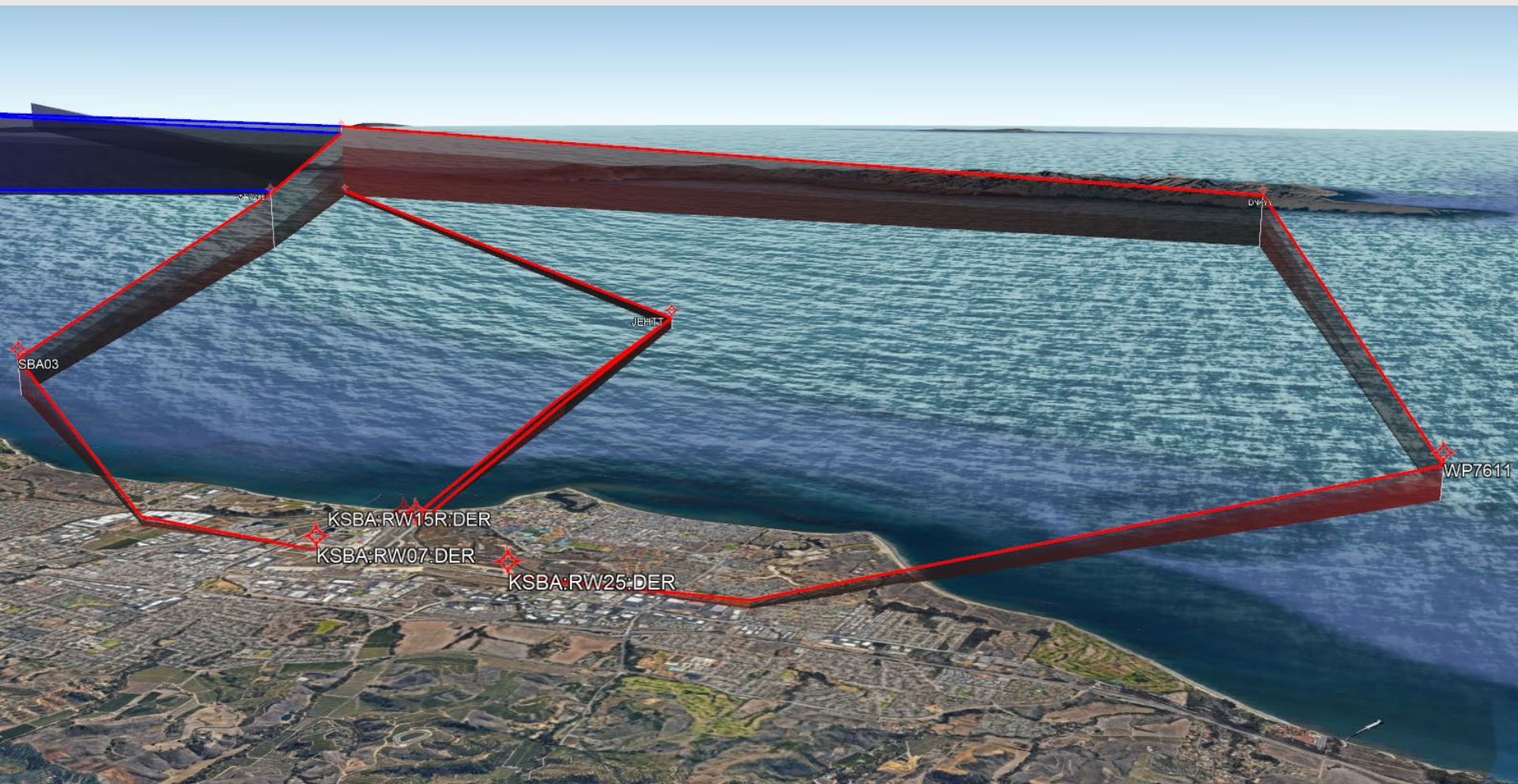


GOLETA1.GOLETA 20128
GOLETA ONE DEPARTURE

DRAFT - ALUXXX (FAA-O)

SANTA BARBARA MUNI (SBA)
SANTA BARBARA, CA

GOLETA Departure



SBA KNNZI ONE

Departure Procedure

Mirrors Current “GAUCH” departure procedure (with a few changes):

RWY 7: Departures begin a right turn to SBA03 and intentionally overlay a path similar to the current inbound Charted Visual Approaches and Flight Techs IFR approach to RWY 25 with the Visual Guidance Fix.

- After SBA 03, KNNZI ONE continues to KELLP, CORRK and KNNZI and so on.
- Adds a few flying mile to the RWY 25 DP, but minimizes residential overflight

RWYs 15L/R: Reflects no change to the current GAUCH procedure.

RWY 25: Departures from this runway experience the most notable change from GAUCH, requiring the aircraft to make a southwest turn about one mile past the departure end to intercept a course to WP6600 the track to KNNZI then to GAUCH

- Less residential/sensitive area overflight with aircraft at climb power.
- Adds some track miles to the departure procedure, but with favorable result.



(KNNZI1.KNNZI) 26127
KNNZI ONE DEPARTURE

FAKE: AL-9077 (FAA)

SANTA BARBARA MUNI (SBA)
SANTA BARBARA, CA

PROTOTYPE-NOT FOR NAVIGATION

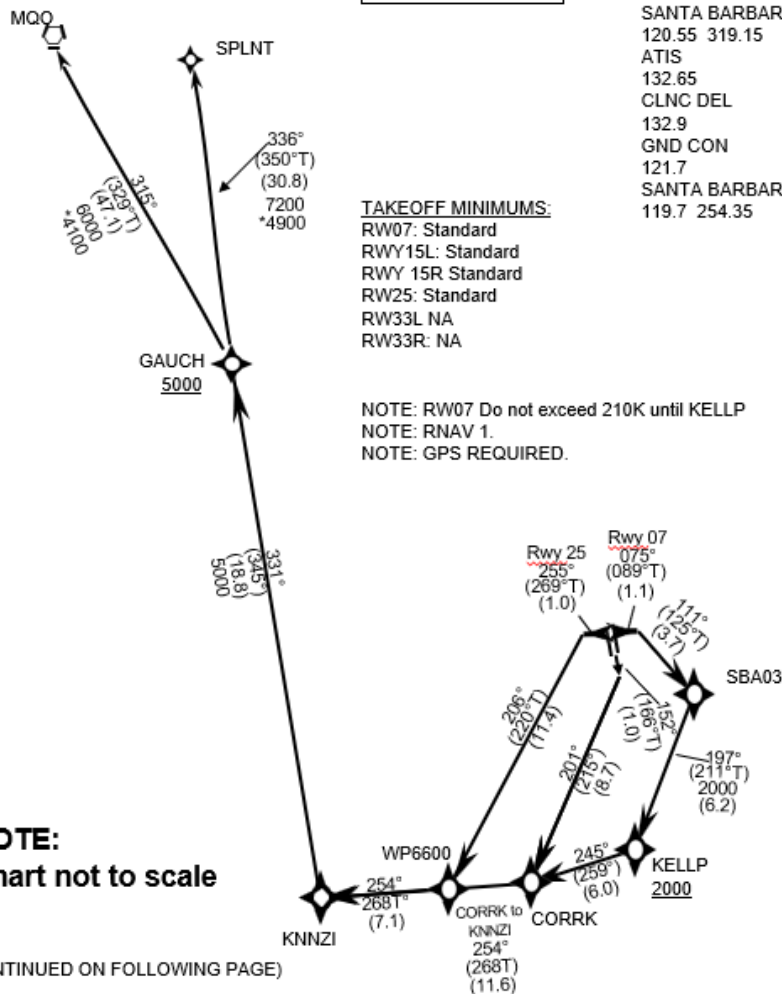
TOP ALTITUDE: AS
ASSIGNED BY ATC

SANTA BARBARA DEP CON:
120.55 319.15
ATIS
132.65
CLNC DEL
132.9
GND CON
121.7
SANTA BARBARA TOWER
119.7 254.35

TAKEOFF MINIMUMS:

RW07: Standard
RWY15L: Standard
RWY 15R Standard
RW25: Standard
RW33L NA
RW33R: NA

NOTE: RW07 Do not exceed 210K until KELLP
NOTE: RNAV 1.
NOTE: GPS REQUIRED.



KNNZI Departure

(KNNZI1.KNNZI) 26127
KNNZI ONE DEPARTURE

FAKE: AL-9077 (FAA)

SANTA BARBARA MUNI (SBA)
SANTA BARBARA, CA

DEPARTURE ROUTE DESCRIPTION

TAKEOFF RUNWAY 07: Climb on heading 075° to intercept course 111° to cross SBA03 then track 197° to cross KELLP at or above 2000' and at or below 210K then track 245° to CORRK then track 254° to KNNZI then track 331 to cross GAUCH at or above 5000' thence...

TAKEOFF RUNWAY 15L/R: Climb on heading 152° to intercept course 206° to CORRK then track 254° to KNNZI then track 331 to cross GAUCH at or above 5000' thence...

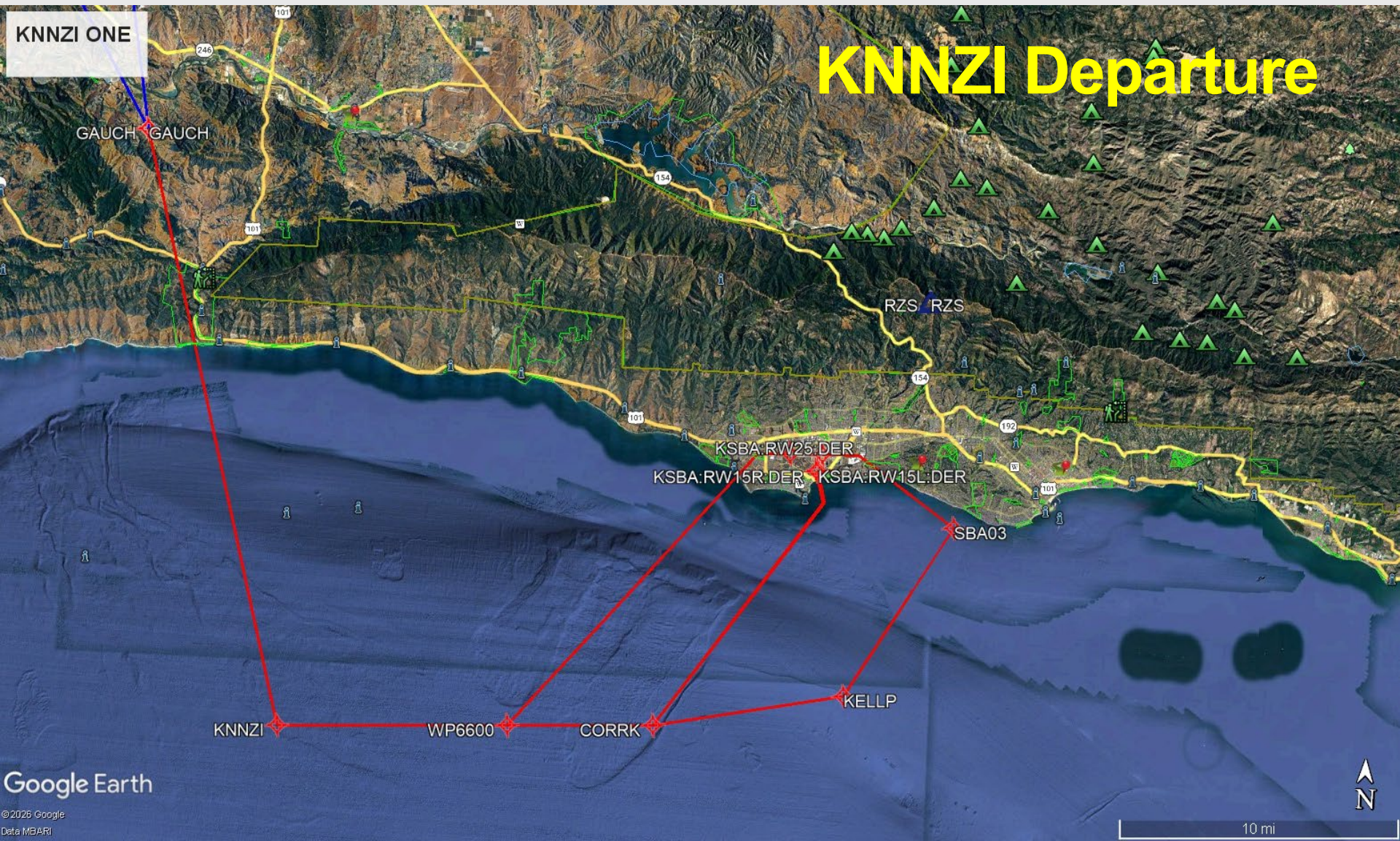
TAKEOFF RUNWAY 25: Climb on heading 255° to intercept course 206° to WP6600 then track 254° to KNNZI then track 331 to cross GAUCH at or above 5000' thence...

MORRO BAY TRANSITION (KNNZI1.MQO)

SPLNT TRANSITION (KNNZI1.SPLNT)



KNNZI Departure



END OF PROCEDURES

Question and Answer Session