

C | ANAC
RECOMMENDATIONS

APPENDIX

14 CFR
PART 150
UPDATE

A stylized icon of an airplane, composed of several vertical bars in shades of blue, green, and teal, with a white airplane silhouette superimposed on top.

ANAC SUBCOMMITTEE RECOMMENDATIONS – As of June 25, 2020

CURFEW PENALTIES

Complete	On Hold Pending Part 150 Results	Analyzed in Part 150
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Recommendation – PASSED: In Favor = 7, Opposed = 1	STATUS
1. Increase the amount of fines assessed on the airlines for curfew violations commensurate with the increase in cost of living. Continue to maintain multiplier.	Complete: Presentation by SDCRAA at 10/17/18 ANAC , low levels of current curfew violations doesn't support increase.
2. Use 100% of curfew violations fines for noise mitigation efforts, including but not limited to, additional noise monitoring, home upgrades not covered by QHP, engineering studies, community awareness, etc. In addition, the San Diego County Regional Airport Authority (SDCRAA) should make community members aware of these fines and how they are being used to reduce noise impacts.	Complete: Presentation by SDCRAA at 10/17/18 and 2/20/19 . Penalty fines will be used for QHP treatments.

SUBCOMMITTEE CONTINUATION

Recommendation - PASSED: In Favor = 4, Opposed = 2, Abstain = 1	STATUS
3. Continue the subcommittee to ensure continued community input from affected neighborhoods. Post applications on the website for 2017/2018 seats.	Complete: SDCRAA created CAC for Part 150. The first CAC meeting was held on 3/22/18 .

FAA AIR TRAFFIC CONTROL RADIO FREQUENCIES

Recommendation - PASSED: Unanimous	STATUS
4. FAA to provide full public access to TRACON SoCal Arrivals and Departures live radio broadcast frequencies including live FAA feeds (as provided at LAX) via LiveATC.net or similar.	Complete: Online in December 2017.
5. SDCRAA to archive and make publically available on its website ATC of Clearance Delivery, Ground Control, Tower and Approach/Departure, SoCal Arrival and Departure Control radio communications for prior 6-month period.	Complete: Online in December 2017 with 30-day history.

ANAC COMMITTEE

Recommendation - PASSED: Unanimous	STATUS
6. SDCRAA to make all raw noise related data available to the public.	Complete: Available via request to Noise Office and online flight tracking.
7. Modify ANAC Committee Policy to add one representative each from Pacific Beach, Bird Rock, La Jolla, Point Loma Heights, and other directly impacted communities.	Complete: Policy updated in March of 2018 (presented in February of 2018). New members started in June 2018. Four new community members were added outside the 65 dB contour.

QUIETER HOME PROGRAM

Recommendation - PASSED: Unanimous	STATUS
8. Review alternative funding sources to expand the homes treated by the Quieter Home Program (QHP) to noise-impacted homes outside the current noise contour.	Complete: Presentation by SDCRAA at 2/21/18 ANAC mtg. No known alternative sources for funding.
9. SDCRAA to track and report to ANAC at each meeting the count and specific circumstances where applicants are denied Air Conditioning (AC) installations in their QHP applications so that ANAC may consider recommendations to pursue the FAA reconsider the terms of the AC prohibitions.	Complete: All owners are offered three ventilation options to be consistent with FAA eligibility.

NOISE MONITORING AND MITIGATION

Recommendation – PASSED: Unanimous	STATUS
10. Conduct portable noise monitoring in areas that express concerns about aircraft noise that do not have a permanent noise monitoring site close by. Initially these locations should include Mission Beach parallel to Noise Dot #1, Fleetridge, South Fleetridge, Point Loma Heights, Dana Middle School or the Wooded Area on the bayside of the Point.	Analyzed in Part 150: In addition to 23 noise monitoring sites, two sites, one in Point Loma and one in Mission Beach will be monitored during the Part 150 Study and documented in Chapter 7.

11. Study the feasibility and benefit of noise barriers/airport noise mitigation on the water side of the airport and runways across from the Car Rental agency.

Analyzed in Part 150: This will be analyzed in Part 150 Study and documented in Chapter 8.

ADDITIONAL SDCRAA ANALYSIS

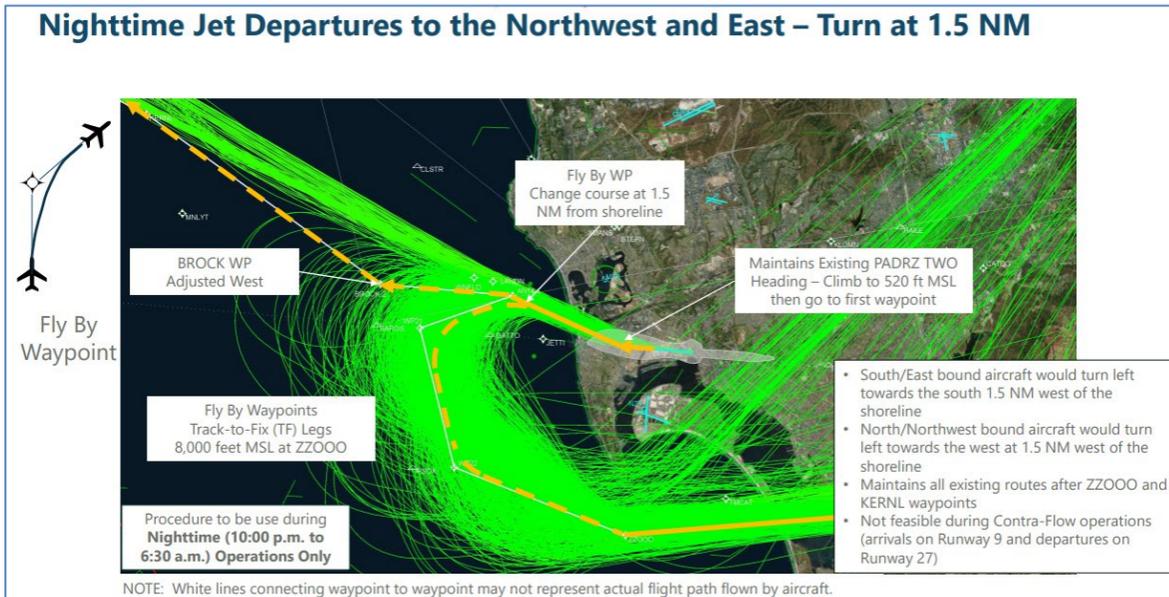
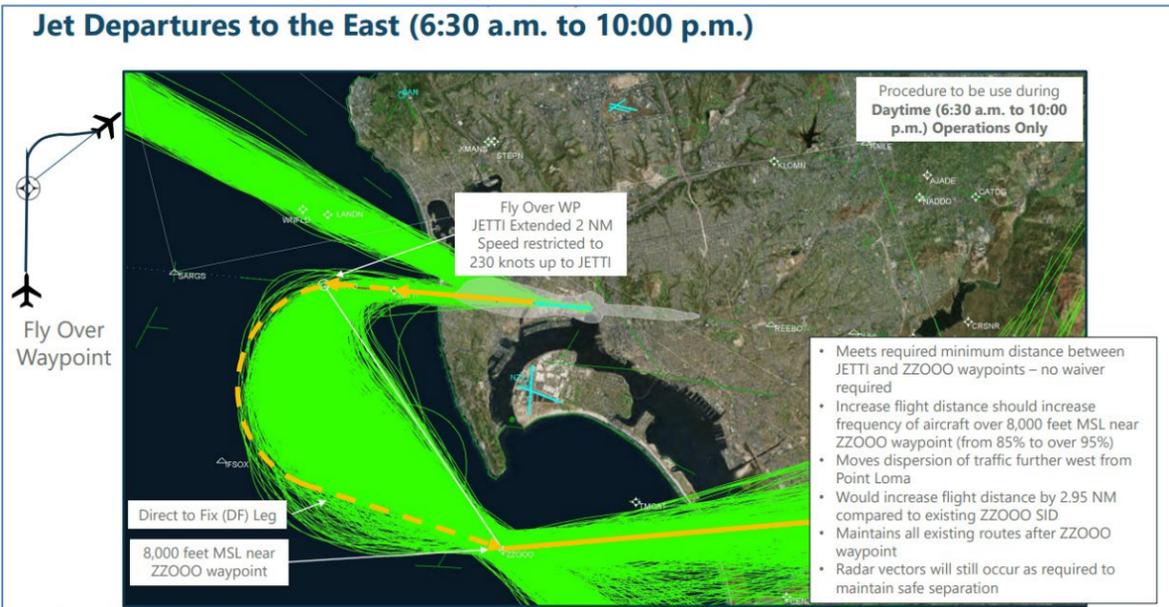
Recommendation – PASSED: Unanimous	STATUS
<p>12. SDCRAA to conduct additional analysis and publish this data as part of ANAC data package, this information should include:</p> <ul style="list-style-type: none"> a. Missed approaches as it relates to the noise dots (complaint vs. non-compliant both left and right), by time of day. b. Missed approaches to the left of the JETTI waypoint, in between JETTI and the original Noise Dot #1 (which is now Noise Dot #2) and to the right of the original Noise Dot #1 (which is now Noise Dot #2). c. Include the definition and calculation of early turn’s departures to the left of the JETTI waypoint and to the right of the original Noise Dot #1 (which is now Noise Dot #2). d. ZZOOO departures that are outside/south of ZZOOO waypoint, noise dot compliant but not outside ZZOOO waypoint, early turns to the left and aircraft that are cleared direct to the MTBAL waypoint. e. Include airline information associated with missed approaches, curfew violations, and early turns. f. Report on noise events using the number above (Nx or N65) to indicate how many loud aircraft noise events are occurring. g. Report all noise complaints by time, date, flight number, and neighborhood (reinstate historical noise complaint reporting). h. SDCRAA to publish 55dB CNEL contour on their website. i. Conduct an independent audit of the accuracy of web-based Flight Tracking system. j. Implement a range of ways to educate the community on how to use Flight Tracker. k. Track conformance to the “290 degree” departure heading (from end of Runway 27) to the Nighttime Noise Abatement Procedure. 	<p>Complete: Included in monthly Tableau online statistics starting in February of 2018, with the exception of:</p> <ul style="list-style-type: none"> f. Published on 4/18/18 in ANAC member package g. Not feasible to publish all noise complaints but monthly stats are included for neighborhoods. h. Published in 4/18/18 ANAC Member package i. ANOMS system accepted by Caltrans in December of 2019 j. Five public workshops were held in various communities in 2018

FLIGHT PROCEDURE CHANGES - OVERALL

Recommendation – Combined Recommendations 13-21 – PASSED Unanimous	STATUS
<p>13. SDCRAA will engage an independent third party consultant, with public involvement, to provide a full and honest analysis and evaluation of the overall alignment of current SID's, STAR's and Procedures and Agreements. Note: ANAC would like to stay involved in the process to remain informed and provide input.</p>	<p>Complete: SDCRAA engaged an independent third-party consultant, by hiring Ricondo & Associates, Inc., to provide a full and honest analysis and evaluation to address recommendations/suggestions related to ANAC 14 through 20 Recommendations. This effort was called the Flight Procedure Study and all documentation is located on the airport's website. https://www.san.org/Airport-Noise/FAR-Part-150?EntryId=13052</p>

Flight Procedure Study Summary:

From March 2018 – May 2019, the CAC/TAC reviewed 20 flight procedure modifications. Based on parameters agreed to by the CAC/TAC, three procedures were determined to be feasible for further review by the FAA. Two of these procedures went to ANAC and were approved to move forward to the FAA and one is on hold pending results of the nighttime initial departure heading (ANAC #17) in the Part 150 study. Those three final recommendations are summarized on the next page.



NOTE: White lines connecting waypoint to waypoint may not represent actual flight path flown by aircraft.

1. To extend where aircraft turn and reduce noise in La Jolla, Pacific Beach, Mission Beach, Ocean Beach and Point Loma, request amendment to ZZOOO RNAV SID (Departures to Eastern destinations) to move JETTI waypoint out two miles. This procedure was approved by ANAC in June of 2019 and [submitted in the FAA's IFP Gateway](#) (location to request flight procedure changes) on behalf of ANAC on August 19, 2019. Currently under review by the FAA.
2. To reduce noise in La Jolla, Pacific Beach and Mission Beach, during nighttime hours requesting new waypoints to fly aircraft further away from the shoreline. This request was determined feasible for nighttime hours only but not submitted to ANAC as the CAC wanted further analysis in the Part 150 on the nighttime initial departure heading (ANAC #17). If requested by the CAC, this design as-is can be submitted to ANAC and if approved, sent to the FAA.



3. To increase compliance and reduce early turns over Point Loma, request the FAA move noise dots #4 & #5. [Request sent to the FAA on behalf of ANAC](#) on August 19, 2019 with a [response back from the FAA](#) on November 5, 2019, stating it was not feasible.

FLIGHT PROCEDURE CHANGES – PADRZ SID

Recommendation (to be included as a subset of #13)	STATUS
<p><u>PROCEDURE SUGGESTIONS – PADRZ SID:</u></p> <p>14. Revise PADRZ or create a new procedure to reduce increased noise in La Jolla, Mission Beach and Pacific Beach. Several members of the subcommittee worked to develop potential revised procedures designed to reduce noise impacts. The suggestions below are included as, and meant to be, examples to clarify the desired outcome and to bring up potential alternatives to the current procedure.</p>	
<p>a. Move the WNFLD and LNDND waypoints south so as to align with the relocated Noise Dot #1 at 290 (15 degree separation from JETI at 275 degrees) and designate as “Flyover” waypoints in the respective SID’s, consistent with JETI.</p>	<p>On Hold Pending Part 150 Results: This suggestion recommends moving Noise Dot #1 along a 290-degree magnetic heading at 1.5 NM for the shoreline and designing a procedure that provides a “fly over” waypoint at the location as well as relocating the WNFLD and LANDN waypoints south of their current location to</p>

	<p>be on the 290-degree magnetic heading from the departure end of Runway 27. This is currently on hold pending evaluation in the Part 150 Study (Alternative 1A and 1B) due to its potential to impact the 65 CNEL.</p>
<p>b. Establish within the PADRZ SID procedure a horizontal distance from end of runway (1.0 miles) along a fixed heading which must be satisfied along with altitude before a right turn can be initiated to preclude flights that quickly attain the current 520' altitude and turn right of and prior to the Noise Dot #1 before correcting to WYNFLD which results in aircraft flying farther north over Mission Beach.</p>	<p>On Hold Pending Part 150 Results: This suggestion proposes to keep Runway 27 departures on the runway heading until aircraft one mile from the end of the runway and reach an altitude of 520' before turning right. This is currently on hold pending evaluation in the Part 150 Study (Alternative 1C) due to its potential to impact the 65 CNEL.</p>
<p>c. PADRZ ONE SID As currently designed the PADRZ ONE departure leaves aircraft very close to and almost paralleling the coast along La Jolla, increasing noise impacts significantly. We recommend moving the WNFLD and KERNL waypoints 1.5NM south of their current positions. This will ensure aircraft proceed more directly off the coast without paralleling the shore and adds less than a mile of track distance to PADRZ.</p>	<p>On Hold Pending Part 150 Results: <u>Moving WNFLD</u>, Based on analysis in the Flight Procedure Study, 1) moving WNFLD south is limited to maintaining at least a 10-degree divergent heading from runway and 2) adjusting the initial departure path in PADRZ RNAV SID to a path equivalent to the 290-degree path needs to be evaluated in the Part 150 Study. Alternative 1A, 1B, 2A and 2B are evaluating initial departure headings that would provide an opportunity to move WNFLD further south assuming a 10-degree or more divergent heading from 275-degrees is maintained. This is currently on hold pending evaluation of Alternatives 1A, 1B, 2A and 2B in the Part 150 Study due to its potential to impact the 65 CNEL.</p>
<p>d. Create a new procedure BROCK-2 (Alternative 1) Request FAA to revise PADRZ SID and establish new waypoint</p>	<p>On Hold Pending Part 150 Results: The Flight Procedure Study determined this suggestion was not feasible during daytime or</p>

<p>BROCK1. Adds min increased flight time and takes aircraft further off-shore before turning to northern destinations. This will help all coastal neighborhoods with noise issues.</p>	<p>evening hours because it would not maintain minimum separation requirements from other departures. A procedure design similar to suggestion for nighttime only was considered feasible, but was put on hold by CAC until the nighttime initial departure heading was evaluated in the Part 150 Study Update (ANAC #17). Alternatives 2A and 2B involve a reduction in divergence allowed by FAA requirements which would provide an opportunity to move northbound traffic further south of La Jolla during daytime and evening hours. This concept is not the BROCK-1 design, but meets the intent to move traffic as far south as possible from La Jolla. This is currently on hold pending evaluation of Alternatives 2A and 2B in the Part 150 Study due to its potential to impact the 65 CNEL.</p>
<p>e. Create a new procedure BROCK-1 (alternative 2 – preferred) Relocate waypoints WNFLD and LNDN 0.75 miles directly south or adopt BROXK recommendation. Maintain 274 departure until Altitude 520 or greater. Maintain 274 departure heading until 520 foot altitude or greater and the aircraft have reached (new) flyover waypoint 0.25 to 0.5 miles from the end of the runway before turning toward WNFLD, LANDN or new BROCK Waypoint.</p>	<p>On Hold Pending Part 150 Results: See 14 d. response above.</p>
<p>f. Do not move the PADRZ SID further south to avoid negative noise impacts on the south side communities of the Point Loma Peninsula.</p>	<p>Analyzed in Part 150: Analysis will be completed for all feasible alternatives related to PADRZ SID initial departure path changes to evaluate potential changes to CNEL 65 CNEL. There are no</p>

proposed changes that would direct northbound jet departures at headings less than 275-degrees.

FLIGHT PROCEDURE CHANGES – ZZOOO SID

Recommendation (to be included as a subset of #13)	STATUS
<u>PROCEDURE SUGGESTIONS – ZZOOO SID:</u>	
<p>15. Revise ZZOOO to significantly reduce or eliminate flights over the Point Loma Peninsula, including Cabrillo National Park and reduce or eliminate eastbound turns over La Jolla. Several members of the subcommittee worked to develop potential revised procedures designed to reduce noise and enforce compliance with Noise Dots and the ZZOOO procedure over Point Loma. Those suggestions are included as, and meant to be, examples to clarify the desired outcome and to bring up potential alternatives to the current procedure.</p>	
<p>a. Eastbound flights should reach a minimum of 8K feet before crossing over ZZOOO to minimize thrusters and reduce duration of noise impacts over Point Loma.</p>	<p>Completed: Altitudes at the ZZOOO waypoint were evaluated in the Flight Procedure Study and found that the majority of aircraft on the ZZOOO RNAV SID are at or above 8,000'. The proposed concept submitted to FAA in August of 2019 extends the current ZZOOO RNAV flight path, which is expected to increase the frequency of jet aircraft that fly the ZZOOO RNAV SID which is published for aircraft to be at or above 8,000' at the ZZOOO waypoint.</p>
<p>b. FAA/TRACON to discourage the practice of redirecting flights off of their filed ZZOOO flight plan departure, to turn north then east over La Jolla. FAA to increase minimum SID flyover\flyby altitudes to encourage increased climb rates.</p>	<p>On Hold Pending Part 150 Results: The Flight Procedure Study found that eastbound departures that turn right over La Jolla occur primarily at night. An RNAV SID for eastbound departures between 10:00 p.m. and 6:30 a.m. would reduce the likelihood of</p>

	<p>this occurring over La Jolla. A design concept was proposed that directs eastbound departures between 10:00 p.m. and 6:30 a.m. to the left on a path to the ZZOOO waypoint. This RNAV SID request was put on hold, Committee members wanted to determine the feasibility of ELSO and adjustments to the nighttime noise abatement procedure (ANAC 17), since this design uses the same initial departure path as the existing PADRZ RNAV SID to avoid changes to CNL 65 or higher noise exposure area. This procedure design is on hold until Part 150 Alternatives 1 and 2 are evaluated in the Part 150 Study Update.</p>
<p>c. FAA/TRACON to direct that ALL SAN departure separation be limited to between JETTI (275 degrees) and the historical Red Noise Dot #1 (290 degree vectors from the end of Runway 27) for LNSAY, BORDER, PEBLE and ZZOOO, etc. (plus all new Metroplex SID's) Prohibit 250 to 275 departure vector range, except for specific safety events ("Runway 27 STAR Missed Approach Wave Off").</p>	<p>Analyzed in Part 150: Because this would potentially change the CNEL 65 or higher exposure area, the Flight Procedure Study recommended it be evaluated in the Part 150 Study Update as Alternative 3. The Part 150 Study Team presented findings that indicate Alternative 3 is not feasible due to limitations it would cause to airfield capacity.</p>
<p>d. Follow ZZOOO procedure, comply with the JETTI flyover waypoint and consider the establishment of a minimum vectoring altitude for Eastbound turns.</p>	<p>Completed: The Flight Procedure Study concluded that Minimum Vector Altitude (MVA) is driven only by obstacle clearance, and it is a reference for FAA ATC when vectoring aircraft not on a defined procedure. Modifying the MVA is not a feasible method to raise altitudes.</p>
<p>e. The ZZOOO ONE departure as currently designed puts departing aircraft close to Point Loma peninsula and the</p>	<p>Completed: Consultant recommended a modification to the ZZOOO RNAV SID that extended the JETTI waypoint further west</p>

<p>southern end of coastal La Jolla, subjecting residents to increased and at times incessant noise from departing aircraft. Aircraft need to be further offshore before beginning the turn south to the ZZ000 waypoint. We recommend replacing the JETTI waypoint with a waypoint along the same track from the departure end of Runway 27 that is 2NM further west, located at approximately 32.75360N - 117.25755W.</p>	<p>and included a more predictable design. TAC, CAC and ANAC accepted the modification and requested it proceed to FAA for review and implementation. The proposed modification was submitted to FAA for consideration on August 19, 2018.</p>
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FLIGHT PROCEDURE CHANGES – COMIX STAR

Recommendation (to be included as a subset of #13)	STATUS
<p><u>PROCEDURE SUGGESTIONS – COMIX STAR:</u></p> <p>16. Reassess and revise the entire arrival corridor in a manner that more appropriately “shares the noise” instead of concentrating arrivals from the North in a very narrow corridor. Several members of the subcommittee worked to develop potential revised procedures to COMIX STAR designed to reduce the increased noise that has resulted from the implementation of Metroplex and NextGen. Those suggestions are included as, and meant to be, examples to clarify the desired outcome and to bring up potential alternatives to the current procedure.</p>	<p>Completed: in the Flight Procedure Study the consultant evaluated multiple recommendations to revise the COMIX RNAV STAR to address noise concerns. Based on the noise screening analysis, the Consultant recommended not to proceed forward with the proposed concept because it would increase aircraft noise to noticeable levels for communities who are not frequently overflown. The TAC,</p>
<p>a. Revise COMIX STAR procedure in order to shift flights that Metroplex has moved and concentrated further South (the downwind leg) over less populated areas and restore prior altitude.</p>	
<p>b. Shift the waypoint XMANS on the COMIX STAR north to a location that is over the interstate freeway 805 and 52 with the constraint to remain clear of MCAS Miramar’s airspace. It would come ashore over Torrey Pines State Park before connecting with KLOMN.</p>	

<p>c. Increase Min. Altitude at LNTRN (LCOVE) at or above 10,000'. This change would result in aircraft flying over less populated areas, including industrial businesses, thus reducing the noise impact and saving time/fuel. This proposed path is closer to the historical flights pre-NextGen.</p>	<p>CAC and ANAC concurred with the consultant's recommendation.</p>
<p>d. COMIX ONE STAR The RNAV-only COMIX ONE arrival is very similar to the existing non-RNAV BAYVU arrival in terms of ground track with a key difference being that the COMIX arrival has an "at or above 8,000 feet" altitude restriction on its last offshore waypoint (LANTRN). The BAYVU arrival has an "at or above 9,000 feet" restriction at its nearly identically-located LCOVE waypoint. This has resulted in aircraft being lower and noisier over La Jolla. We recommend changing LANTRN waypoint's altitude restriction to "at or above 9,000 feet".</p>	

NIGHTTIME NOISE ABATEMENT PROCEDURE

Recommendation	STATUS
<p>17. Determine methods to increase current compliance in Nighttime Noise Abatement Procedures to improve noise impacts for affected communities and ensure that ATC is only turning aircraft off this procedure for safety reasons only.</p>	<p>Analyzed in Part 150: Consultant is reviewing this in the Part 150 Study update. Part 150 Alts 1A, 1B, 1C and 4.</p>

FAA NOISE DOTS

Recommendation	STATUS
<p>18. Review if the current definition of an early turn, and define what an early turn means and conduct comparative analysis of actual flight paths.</p>	<p>Completed: Consultant did review the three recommendations in the Flight Procedure Study. The Consultant provided a definition</p>
<p>19. Work with FAA/ATC to modify flight procedures to increase compliance and reduce early turns, with consideration of aircraft performance.</p>	

<p>20. FAA/TRACON to incorporate Red Dot waypoint locations into current and future SID's as part of the formal SID and STAR Procedures, so that Red Dots become waypoints on departure procedures and data is collected on waypoints.</p> <ul style="list-style-type: none"> a. Reposition FAA Noise Dot #1 from its current position at 295- degrees (implemented by FAA/AA without public notice) to its "original" pre 2005 position at 290 degrees from the end of SAN Runway 27 and 1.5 miles off the coast. b. Reposition FAA Noise Dot #3 from its current position at 265 degrees (implemented by the FAA/AA without public notice) to its "original" pre 2005 position of 275 degrees (JETTI) and 1.5 miles off of the coast. c. Reposition FAA Noise Dot #4 from its current location (west of Fort Rosecrans) to coincide with the ZZOO waypoint to deter regular Early left turns inside of ZZOOO which continue to occur at the direction of ATC in direct conflict with the SID routing. ZZOOO was specifically designed by FAA to provide an efficient and cost effective departure for eastbound traffic and to mitigate impacts to affected DOT Section 4(f) resources (including Fort Rosecrans, Cabrillo National Monument) and the peninsula community. 	<p>of early turns and indicated Area Navigation and current design of SID procedures comply with preventing early turns. The Consultant did recommend modifications to two FAA Noise Dots which were accepted by TAC, CAC and ANAC. The Authority sent a request to FAA to consider the modifications on August 19, 2019. FAA concluded the movements will impact efficient movement of traffic; therefore will not implement.</p>
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NOISE ABATEMENT PROCEDURE (NADP)

Recommendation	STATUS
<p>21. Have SDCRAA conduct an engineering analysis of modification to the Noise Abatement Departure Procedure to assess the potential improvement to noise contours around the airport.</p>	<p>Analyzed in Part 150: Consultant is reviewing this in the Part 150 Study update, Alternative 6.</p>