Tyler Reince

Subject: FW: Ground Delay Program at SDIA

From: Gary Wonacott <wildcatwonacott@gmail.com>
Sent: Wednesday, September 23, 2026 12:41 PM
To: SDCRAA clerk <clerk@san.org>
Subject: Ground Delay Program at SDIA

Please distribute to ANAC members.

Ground Delay Program at SDIA

San Diego International Airport is approaching capacity. Before reaching capacity, SDIA will be a constrained airport. While the Airport Authority likes to talk about capacity on an annual basis, the real capacity limit and therefore constraint occurs on an hourly basis. And it is not just aircraft sitting in line on runway 27; it is also aircraft delayed at other airports due to the one runway limit at SDIA. This is the real problem that most San Diegans are not aware, which should give every San Diego resident a moment to contemplate what options are available. Why because, providing a great terminal experience does not compensate for the single runway.c

The basis for the FAA Ground Delay Program records for SAN—causes, timing, delay length, and how often volume (not weather) is the reason. A Ground Delay Program (GDP) is the FAA's official admission that **arrival demand exceeds the rate San Diego can accept**. Aircraft are held at their origin cities and given an Expect Departure Clearance Time so they do not stack over SAN. That is different from a thunderstorm ground stop. A volume GDP on a clear day is a capacity event.

How SAN GDPs are typically written

Recent Command Center products for SAN look like this:

Feature	Typical SAN GDP
Reason code	**Airport volume** / VOLUME / COMPACTED DEMAND
Arrival rate (AAR)	**24 arrivals per hour**
Runway in use	27 / 27 (west flow)
Average assigned delay	**~34–37 minutes**
Max assigned delay	**~70–75 minutes**
Scope	Almost the entire Lower 48 plus Canadian departure airports
Window	Often mid-morning through mid-afternoon or into the evening bank

Examples from 2026:

- **Aug 9:** volume GDP, avg 34 min, max 73 min, AAR 24, 8:00 a.m.–3:59 p.m. PDT.

- **Early Sept / Labor Day weekend:** volume metering; some afternoon waves reported much longer on the ground (local coverage cited ~2 hours for a subset of flights).
- **Sept 4–5:** volume GDP, average arrival delay about **37 minutes**.
- **Sept 21:** NAS status listed SAN GDP, **34 min average, reason: Airport volume, AAR 24**. SFO that same night was "low ceilings"; SEA was "runway construction." SAN's label was volume.
- **Sept 22 ops plan (for the 23rd):** "**SAN IS IN THE PLAN DUE TO VOLUME**" — planned the night before, not a surprise storm.

Weather GDPs do happen (marine layer / low ceilings, e.g. Oct 21, 2025, with construction cutting the acceptance rate to 24). Those are real. The tell for constraint is how often the reason line says **volume when the sky is usable**.

What the 24/hour arrival rate means

FAA's SAN capacity profile and SDIA's own forecast put **total** throughput at about **48–50 operations per hour** (arrivals and departures combined). A GDP that sets **AAR = 24** is the Command Center saying: we will only land a plane every 2.5 minutes so the single runway can still launch departures.

If scheduled arrivals in the 10–11 a.m. hour are in the mid-50s of *flights* on some days (departures + arrivals mixed in published banks), a 24-arrival cap is a sharp cut. That is why delays show up at Phoenix, Dallas, Chicago, and Vancouver even when those airports are in the clear: the hold is for SAN, not for them.

Why volume GDPs cluster in summer and in peak banks

Three structural reasons, not bad luck:

1. **The schedule is peaked.** Mid-morning arrivals and the 10 a.m. departure bank already sit on or above the 48–50 combined-ops line. A GDP is how the FAA flattens that peak.
2. **Summer adds seats into the same box.** June on-time is SAN's weakest month. Labor Day and August volume GDPs are the same mechanism with more airplanes.

Alaska has said at ANAC that GDPs (with IT and weather) are part of why aircraft miss the departure curfew. That is the GDP leaking into community noise, not just passenger inconvenience.

GDP vs other delay tools

- **GDP:** planned metering of arrivals. SAN's common tool for volume.
- **Ground stop:** freeze. Used for incidents (gear-stuck Cessna, Sept 2025) or sudden weather. Rare as a daily habit.
- **TMI / AFP / miles-in-trail:** lighter metering in ZLA airspace; often the step before a formal GDP.
- **Terminal IT outage (Sept 22, 2026):** not a GDP. Flights could still move; people could not check in. Different failure. It did hit the same morning peak that GDPs protect.

How to read a SAN GDP if you are arguing constraint

Ask four questions of each advisory:

1. **Reason = volume or weather?** Volume on a VMC west-flow day is the constraint case.
2. **AAR?** 24 is the stressed single-runway rate, not the 48–57 visual-model number.
3. **Was SAN "in the plan" the night before?** Pre-planned volume GDPs mean the Command Center expected the schedule to exceed the rate.
4. **Scope?** Nationwide holds for a California airport with no storm is demand management.

A compact evidence table for a packet:

Date	Reason	AAR	Avg delay
Aug 9, 2026	Volume	24	34 min (max 73)
Sep 4–5, 2026	Volume	—	~37 min
Labor Day weekend 2026	Volume / compacted demand	—	some waves ~2 hr locally
Sep 21, 2026	Airport volume	24	34 min
Oct 21, 2025	Weather + construction	24	morning bank

Bottom line

SAN GDPs are not mostly "San Diego weather." A recurring pattern of **AAR 24, reason volume, 30–40 minute average holds, national scope, often pre-planned** is the FAA rationing arrivals because the published schedule will not fit the single runway in the hours that matter.

That is stronger than an annual-operations chart. The Command Center is already treating SAN as a peak-period constrained airport.

Is there a coupling between GDP and Curfew Violations

How strict is it, really?

Historically, a large share of after-hours takeoffs are **not** fined. NBC 7's 2016–2020 review: 413 curfew-window departures, **177 fined** (~43%), rest waived (medical, weather, maintenance, ATC). That pattern still holds: Dec 3, 2025 ROD reviewed 24, fined 10; Oct 22, 2025 reviewed 42, fined 23; June 4, 2025 reviewed 34, fined 4.

So enforcement is:

- **Good at stopping scheduled night departures.** No airline advertises a 12:10 a.m. SAN takeoff.
- **Soft on irregular operations.** If the carrier can show local weather or a local mechanical, the panel usually votes no fine.

- **Punitive for repeat offenders on "avoidable" nights** — especially Alaska after the multiplier stacks.
- **Not a hard stop.** A $70,000 fine on a 180-seat airplane is real money but often cheaper than canceling, hotels, and misconnects. Pilots on forums have said that for years.

Tie to the constraint / GDP story

This is the same system under peak-hour pressure:

- A **volume GDP** holds arrivals all afternoon. Those airplanes miss the last legal departure slot.
- The carrier then chooses: cancel and ferry in the morning, or push at 11:40 p.m. and face CVRP.
- Alaska told ANAC that GDPs, IT outages, and weather are why they miss the curfew; they called their own rate unacceptable and said they are trying to cut it.

So curfew enforcement is both a noise tool and a **diagnostic of airfield constraint**. When summer banks and GDPs stack, CVRP dockets get long. When winter is quiet, so is the panel.

What the public record does *not* show well

- A single official annual table of violations vs. fines vs. carrier for 2026 year-to-date (you have to add RODs).
- How often "ATC delay" is a GDP by another name.
- Whether the multiplier actually changes airline schedule design, or only the check they write after the fact.

Other Implications

One way to provide some relief , perhaps, is by changing the curfew. The CLSSY SID was implemented for a reason after the effort to formalize the "290 nighttime agreement" during the Part 150 failed. And it only failed because we the residents of Mission Beach exposed the true purpose of the Airport Authority and to a lesser extent the City. The FAA and the Airport Authority have negated any potential for a lawsuit by a large

number of residents who live in the 65 dB CNEL and signed up for the Quiet Home Program (signed away opportunity to sue).

Tyler Reince

Subject: FW: October 4^J 2026 assessment of a 24 day of aircraft noise in SMB

From: Gary Wonacott <wildcatwonacott@gmail.com>
Sent: Tuesday, October 6, 2026 6:25 AM
To: SDCRAA clerk <clerk@san.org>
Subject: October 4^J 2026 assessment of a 24 day of aircraft noise in SMB

Please distribute to all ANAC members

As the airport approaches capacity the number of on runway and Government Program delays will increase rapidly, to a point where SDIA may no longer be viewed as a “convenient” airport experience.

While there is potential for overage to flow to LAX or TJIA, it is likely that there will be pressure within the tourism community to reevaluate the curfew. This paper (my opinion) indicates potential for negative health consequences resulting from single events in SMB from the existing departures; if this is the case for residents of SMB, it is easy to surmise that the health consequences for residents living in Loma Portal and or Pt. Loma and Ocean Beach are considerable worse.

any change in the curfew should be evaluated from a health perspective prior to any changes in the hours.

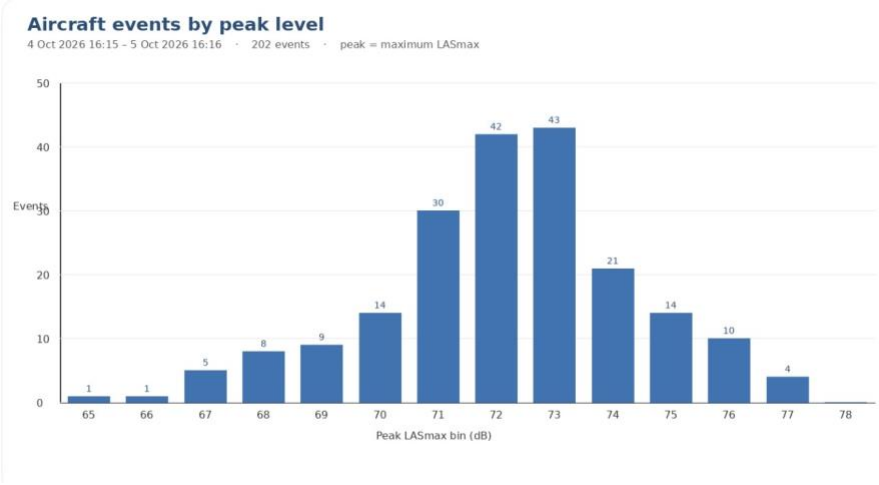
Gary Wonacott

ASSESSMENT OF 24 HOURS OF AIRCRAFT NOISE ON HUMAN RESPONSE IN SOUTH MISSION BEACH

October 4 2026[i]

The measurements

The 24-hour record contains 202 aircraft events. Each peak is the maximum slow A-weighted level (LASmax) during that overflight. The distribution is tight: the mode is 73 dB, the median is 72.7 dB, and the loudest event is 77.7 dB.



The record used is the continuous Larson Davis run from 4 Oct 2026 16:15:51 to 5 Oct 2026 16:16:41 (86,451 one-second samples). An event is a stretch at or above 65 dB LASmax lasting at least 5 seconds. Stretches separated by 60 seconds or less are one event; a longer gap starts the next. The shortest gap between peaks in this file is 75 seconds, so the one-minute rule does not split or join overflights. Time above 65 dB is typically 14 seconds.

A bin of 72 means 72.0 ≤ peak < 73.0 dB. Of the 202 events, 178 (88%) peaked at 70 dB or higher and 28 (14%) at 75 dB or higher. Mean peak is 72.6 dB; median SEL is 81.2 dB. Nothing rose above 65 dB between 23:00 and 05:00. The loudest retained event is 77.7 dB at 08:14:25 on 5 Oct.

Lowering the threshold to 60 dB adds the quiet tail and raises the count to 246. The mode stays in the 72–74 dB bins.

The workbook has the 202-event list, the histogram as formulas against that list, and the chart.

Almost every event in this histogram sits at or above the single-event levels that have produced measurable cardiovascular stress in controlled studies. The day as a whole also sits well above the WHO aircraft guidelines, which are set on average exposure, not on the peak of one overflight.

Two scales are in play, and they should not be mixed. Chronic risk is judged from outdoor Lden and Lnight. Acute cardio-stress — adrenaline, blood pressure, endothelial function — has been

shown from indoor event peaks around 60 dB and from a night equivalent level near 45 dB, even in healthy adults.

Where this day sits

From the 202 events, aircraft-only energy (ambient excluded) is about 56.6 dB by day, 57.3 dB in the evening, 49.1 dB at night, and 59 dB Lden. The WHO European guideline is aircraft noise below 45 dB Lden and below 40 dB Lnight, because levels above those are associated with adverse health effects, including sleep disturbance and, in the supporting review, ischemic heart disease. That review put the relative risk of incident coronary disease at about 1.09 per 10 dB of aircraft Lden. This day is roughly 14 dB above the Lden guideline and 9 dB above the night guideline. A single day is not a chronic dose, but it is not a quiet day either: aircraft, not the background, dominate the energy.

Single-event comparison

The cleanest human experiment is the Mainz aircraft-noise series. Healthy adults played 30 or 60 overflights in the bedroom, average indoor maximum about 60 dB(A) and night Leq about 43–46 dB, had worse sleep, higher morning adrenaline, a rise in blood pressure of about 5 mmHg, stiffer arteries, and reduced flow-mediated dilation the next morning. In people with coronary disease or elevated cardiovascular risk, 60 events at an indoor Leq of 46.9 dB raised systolic pressure about 4 mmHg and impaired endothelial function, independent of how annoyed the subject felt. A later trial held Leq near 45 dB and varied the count from 60 to 120 events: vascular impairment was similar, and the cardiac effect tended to grow with event count.

This meter is outdoors. Indoor level is outdoor peak minus the window loss, roughly 15 dB open, 20 dB partly open, 25 dB closed.

With windows open, all 202 events reach an indoor peak of at least 50 dB, and the 28 events at or above 75 dB outdoors match the 60 dB indoor maximum used in the endothelial studies. With windows closed, none reach that 60 dB indoor mark, but 178 still reach 45 dB indoors, which is the start of the range where EEG and behavioral awakening curves rise. Chronic night exposure at outdoor Lnight of 45 dB and above has also been linked to larger ventricular volumes, thicker walls, and worse strain on cardiac MRI.

What the shape of the histogram adds

The distribution is not a few outliers on a quiet background. The mode is 72–73 dB, 178 of 202 events are at or above 70 dB, and the 13 events in the 23:00–07:00 night all peaked between 70.4 and 77.6 dB. That is a smaller night count than the 30–60 event laboratory nights, which matters: the acute vascular effect tracks both level and number of events. The load here is shifted into the evening. The 21:00 hour alone had 23 events, median peak still about 72.6 dB. There is a real gap

from 23:00 to 05:00, so this particular night is not a Schmidt-type 60-event night. The evening and early-morning shoulder is.

The practical reading is that the bulk of the histogram, not the tail, is the cardio-relevant part. A 65 dB outdoor event is already in the indoor awakening range with a window open. The typical 73 dB event is in the range shown to raise adrenaline and blunt endothelial function if the facade loss is about 15 dB, and still in the sleep-disturbance range if the loss is 25 dB. The four events at 77 dB are the top of that same distribution, not a separate class.

Outdoor peak bin	Events	Indoor, windows open (−15)	Indoor, closed (−25)
65–69	24	50–54 dB	40–44 dB
70–74	150	55–59 dB	45–49 dB
75–77	28	60–62 dB	50–52 dB

What does this tell us about the noise

This is a busy aircraft day, not a background-noise day. The meter heard 202 separate overflights in 24 hours, and most of them were loud enough to matter indoors.

The typical event peaked at 72–73 dB outdoors. That is the middle of the histogram, not the tail: 150 of the 202 events fell between 70 and 74 dB, and 28 reached 75–77.7 dB. Each one lasted about 14 seconds above 65 dB, then dropped, with the next one at least 75 seconds later. That shape — a short rise, a peak near 73 dB, a clean gap — is an overflight, not surf, traffic, or a neighbor.

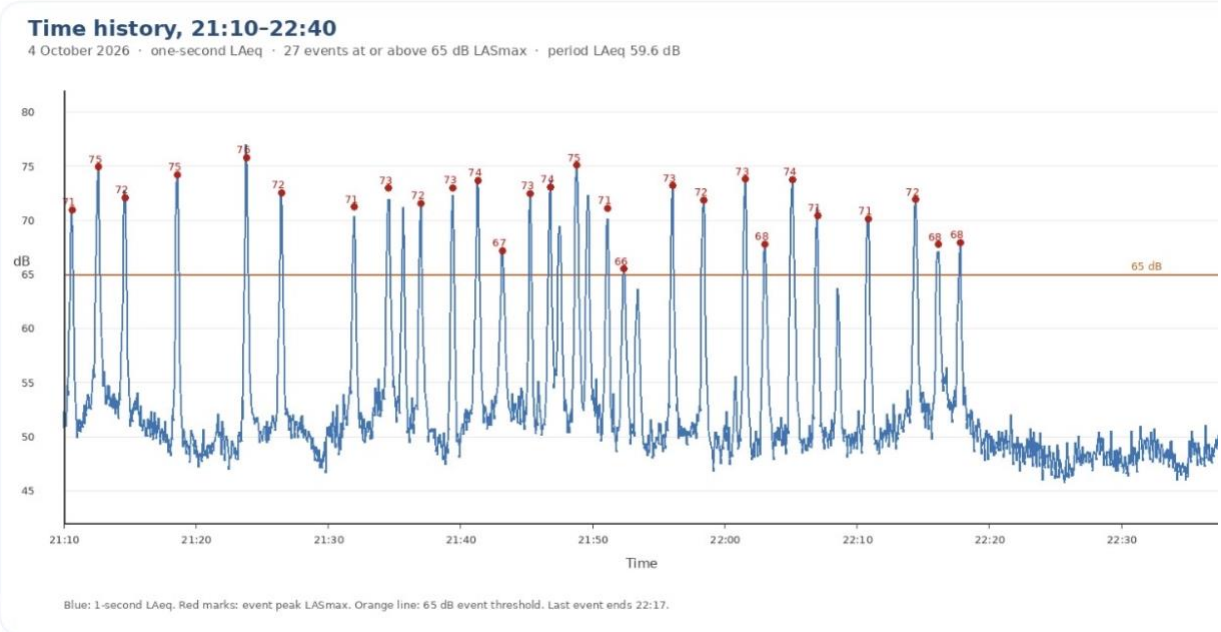
The quiet hours confirm it. Nothing above 65 dB occurred between 23:00 and 05:00. The load is in the operating day and the shoulders: 137 events from 07:00 to 19:00, 52 from 19:00 to 23:00, and 13 in the early morning, all of those last 13 still peaking between 70 and 77.6 dB. The 21:00 hour alone had 23 events.

On energy, aircraft dominate this record. Aircraft-only exposure for the day is about 59 dB Lden and 49 dB Lnight. The WHO aircraft guidelines are 45 dB Lden and 40 dB Lnight. The meter's all-source Lden was 61.5 dB, so other sources added little. A single day is not a yearly dose, but this day is about 14 dB above the level WHO associates with adverse effects.

Indoors, the same events land on the levels used in the cardiovascular studies. With a window open, a 73 dB outdoor peak is about 58 dB inside, and the 28 events at 75 dB or above reach the 60 dB indoor maximum that raised adrenaline, blood pressure, and impaired endothelial function in overnight aircraft-noise trials. With windows closed, those same events are nearer 48–53 dB

indoors — below that 60 dB mark, but still in the range where sleep awakenings increase. The night count here, 13 events, is smaller than the 30–60 event laboratory nights, so the evening shoulder is the heavier part of this particular day.

What it does not say: one outdoor meter day does not diagnose heart disease, and it does not replace a yearly Lden at the facade. What it does say is that the noise at this site on 4–5 October was repetitive aircraft noise, centered near 73 dB, present most of the operating day, and above both the average-exposure guideline and the single-event levels linked to sleep and vascular stress.



i

Tyler Reince

Subject: FW: Safety of CLSSY and PADRZ SIDS operations questioned

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From: Gary Wonacott <wildcatwonacott@gmail.com>
Sent: Monday, October 26, 2026 5:55 AM
To: SDCRAA clerk <clerk@san.org>; Gloria Henson <glohenson@san.rr.com>
Subject: Safety of CLSSY and PADRZ SIDS operations questioned

Please distribute to ANAC members.

Why is there no minimum time separation for successive departures on PADRZ and CLSSY SIDS? Under FAA Order JO 7110.65 (paragraph 5-8-3, Successive or Simultaneous Departures), aircraft departing the same runway need courses that diverge by at least 15 degrees immediately after departure to apply the standard 1-mile successive-departure separation (with radar identification within 1 mile of the runway end). For RNAV SIDs the threshold can drop to 10 degrees in some cases, but PADRZ and CLSSY fall short of even that.

From the published procedures and prior analysis (including OB Rag piece), the initial tracks are roughly:

- PADRZ: ~297°
- CLSSY: ~290°

That's about 7 degrees of divergence — well below the 15° (or 10°) requirement. Because lateral separation cannot be guaranteed, ATC's practical workaround is a time-based minimum interval between successive departures on the two SIDs (in addition to normal same-runway and wake-turbulence spacing).

But, there is no published, SAN-specific fixed minimum time interval that applies uniquely to successive PADRZ and CLSSY departures (or same-SID pairs).

Controllers apply the general FAA separation standards in JO 7110.65. Because the initial tracks diverge by less than 15° (and less than the 10° RNAV threshold), the normal 1-mile successive-departure rule cannot be used. The practical result is a time-based longitudinal separation at takeoff, plus the usual same-runway and wake-turbulence minima.

Typical values that apply in this situation are:

- 1 minute only if courses diverge sufficiently after the initial segment (not the case here).
- 2 minutes behind a heavy/B757 (or when speed differential requires it).
- 3 minutes in certain wake or opposite-direction cases.

The exact interval used on any given night is determined in real time by the tower controller based on aircraft category, actual performance, and traffic, not a fixed local rule written into the SID charts or the published Tower SOP. The LA ARTCC / San Diego Tower documents reference CLSSY for noise-abatement hours but do not list a numerical time buffer between PADRZ and CLSSY.

In addition, a north turn on CLSSY can reduce the already-tight margins with PADRZ traffic, but it is not automatically a safety violation.

The published CLSSY THREE procedure is explicit: climb on heading 275° to 517 feet, then a climbing right turn direct to RRONN, then continue on the depicted route (offshore/south then east on the transitions). A north turn is off the SID. It is almost always an ATC radar vector issued for traffic, weather, or other operational reasons.

When that happens, the controller remains fully responsible for separation under JO 7110.65. Because the initial PADRZ and CLSSY tracks already diverge by only about 7°, a north vector on the CLSSY aircraft further closes that angle. The controller must then rely more heavily on the time/distance buffer applied at takeoff, altitude separation, or additional radar vectors to keep the required minima (normally 3 miles once airborne).

In practice this is legal and routine as long as the controller maintains the applicable separation standard. It does, however, increase workload and reduce the geometric buffer that the time interval was intended to provide. If the original departure spacing was already the minimum required for the non-diverging case (but there is no minimum), a north turn can leave less margin than intended.

Public sources do not document this as a frequent or systemic safety event at SAN, but the geometry makes it a reasonable point to raise with ANAC or the Airport Noise Office. I believe there needs to be an assessment of what has been happening by reviewing historical departure records for PADRZ and CLSSY SIDS to confirm that unsafe conditions are not being allowed.

Gary Wonacott

Mission Beach

Tyler Reince

Subject: FW: Did creating the CLSSY SID cost the SDCRAA and the carriers more?

From: Gary Wonacott <wildcatwonacott@gmail.com>
Sent: Tuesday, October 27, 2026 6:40 AM
To: SDCRAA clerk <clerk@san.org>
Subject: Did creating the CLSSY SID cost the SDCRAA and the carriers more?

Please distribute to ANAC members.

As SDIA approaches capacity, there are multiple options:

1. Off-load operations to LAX and TJIA
2. Reduce or eliminate the curfew
3. Impact the revenue from SDIA operations
4. Move the post 10 pm departures from CLSSY SID to PADRZ SID.
5. Move all 10 pm departures to the CLSSY SID

Option 4 is discussed below:

1. Continue post 10 pm with aircraft departing with destinations east on CLSSY SID and aircraft departing with destinations north on PADRZ SID, is only 5 degree angular separation after reaching 500 feet, or 2. Post 10 pm same criterion for departures but put those departing to east destinations on ZZOOO and those on north on PADRZ with a 15 degree separation after reaching 500 feet altitude?

Option 2 — the fifteen-degree split — produces higher throughput. The five-degree angular separation on CLSSY and PADRZ is below the FAA's standard for simultaneous departures, so controllers have to sequence them as if they were on the same path. The fifteen-degree separation on ZZOOO and PADRZ meets the divergence requirement, which lets controllers clear two aircraft in quick succession instead of waiting for the first to clear the runway environment.

In addition, keeping the post 10 pm aircraft on ZZOOO saves fuel. The fifteen-degree split still gives the higher throughput because it meets the divergence requirement, but now the eastbound aircraft on ZZOOO also burn less fuel than they would on CLSSY. The only remaining cost is the controller workload at the merge point, which is manageable if the fifteen-degree angle is clean.

Both SIDs ultimately feed the same eastbound track through the ZZOOO waypoint. The difference is the initial path:

• CLSSY: Climb on a more northerly heading (~275–290°), then a sequence of short legs (roughly 3.75 + 2.61 + 2.60 NM via BRGDY/LLAMP/CLSSY) before the final 6.28 NM leg from CLSSY to ZZOOO. Total pre-ZZOOO distance is on the order of 15+ NM of dogleg.

• ZZOOO: Climb direct to JETTI, then a left turn direct to cross ZZOOO. It joins the common track with substantially less initial track miles.

The net result is that an eastbound aircraft on ZZOOO flies roughly 8–12 NM less to the merge point than the same aircraft on CLSSY. That is consistent with the geometry described (both ultimately turn left onto the same departure track).

Fuel savings estimate

For a typical narrowbody (B737/A320 family) in the climb phase:

• Fuel flow is on the order of 3,000–4,000 kg/h (~6,600–8,800 lb/h).

• At 200–250 kt ground speed in the climb, that equates to roughly 25–40 lb of fuel per nautical mile.

An 8–12 NM shorter path therefore saves roughly 200–480 lb of fuel per aircraft (center of the range is about 300 lb).

Volume in the 10 pm–11:30 pm window

That 1.5-hour period is the final push before the hard 11:30 pm curfew, so departures are still present but tapering. A reasonable range for a typical evening is 15–30 total departures. Half of those (the eastbound destinations that would switch) is roughly 8–15 aircraft.

Aggregate savings

At ~300 lb saved per aircraft and 10 aircraft switching:

• ~3,000 lb of jet fuel per evening window (range roughly 1,600–7,200 lb depending on exact track difference and flight count).

That is the order of magnitude for the 1.5-hour saturation period with half the departing aircraft moved to ZZOOO. The savings accrue only to the eastbound flights that can use the shorter path; northbound traffic on PADRZ is unaffected.

Roughly $750,000 per year at current fuel prices, using the central estimate from the previous calculation.

Inputs

- Fuel saved per evening (10 pm–11:30 pm window, half the eastbound departures on ZZOOO): ~3,000 lb
- Nights per year: 365

- Annual fuel saved: **~1.1 million pounds**
- Current jet fuel (wholesale/spot, late October 2026): ~$4.60–$4.90 per gallon
- Jet A density: ~6.7–6.8 lb per gallon → **~$0.68–$0.73 per pound**

Annual cost savings

The earlier track-mile and flight-count assumptions spanned roughly 1,600–7,200 lb saved per evening. That produces an annual range of about $400,000 to $1.8 million, with the midpoint near three-quarters of a million dollars. This figure covers only the 1.5-hour pre-curfew window. The calculation uses wholesale fuel cost; airline into-plane prices at SAN are typically higher, so the actual savings to carriers would be somewhat larger.