



EXECUTIVE WORKING OUTLINE [DRAFT]

SFO AIRPORT/COMMUNITY ROUNDTABLE DRAFT RESPONSE TO FAA INITIATIVE

ST = Short Term Task

LT = Long Term

LIGHT GRAY SHADING = FAA NORCAL TRACON

DARKER GRAY SHADING = FAA Western Service Group

LEAD = Task lead agency:

- SFO** = SFO Airport Manager
- RT** = SFO Airport/Community Roundtable
- NCT** = FAA NORCAL TRACON
- WSC** = FAA Western Service Group
- OKC** = Flight Procedures Oklahoma City

#		LEAD	LT/ ST	ARRIVALS	
1	BDEGA + Other arrivals from north Woodside+ Mid-Peninsula	WSC	ST	Safety and traffic flow permitting, maximize use of the BDEGA East downwind.	The RT understands that at certain times of the day, continuous traffic flow on the DYMND arrival causes reduced opportunities to use the BDEGA East downwind. However, when traffic allows (or when a slot can be created), use of the BDEGA east downwind significantly decreases noise to the entire mid-Peninsula.
2	BDEGA + Other arrivals from north Woodside+ Mid-Peninsula	WSC	ST	The RT requests the FAA provide data on the use of the BDEGA East downwind versus the West downwind pre-NextGen and post-NextGen	Residents would benefit by understanding the limitations on the use of the BDEGA East downwind and the causes underlying what appears to be a significant decrease over the past few years in the utilization of the BDEGA East downwind.
3	BDEGA Other arrivals from north Woodside+ Mid-Peninsula	NCT	LT	If safety is not a factor, request the reinstatement of the FNISH transition in order to facilitate use of the BDEGA East downwind.	Ideally (even if only in visual conditions), it would be beneficial to create a “connection” between FNISH waypoint and a turn on to 28R for the FMS Bridge Visual, Quiet Bridge Visual or similar approach to 28R. This would most benefit non-local pilots who may not be familiar with SFO BDEGA East Downwind procedures.
4	BDEGA Other arrivals from north Woodside+ Mid-Peninsula	WSC	ST	The RT requests the FAA provide data on Golden Gate/BDEGA lateral track locations pre-NextGen and post-NextGen.	The Golden Gate arrival directed a 140° heading from SFO. In the BDEGA, this was changed to a 140° concentrated TRACK from BRIXX waypoint located on SFO. Consider other factors which may also account for aircraft following a different track after NextGen.
5	BDEGA Woodside+ Mid-Peninsula	WSC	LT	Determine if the BDEGA West downwind can be flown at a higher altitude.	It has been suggested that the BDEGA West downwind be flown at a higher altitude notwithstanding the constraints of the BRIXX at 12,000’.

6	BDEGA Other arrivals from north Woodside+ Mid- Peninsula	NCT	ST	BDEGA NIGHTTIME HOURS During the nighttime hours, every effort should be made for all arrivals from the north to be assigned to the BDEGA East Downwind.	If delay vectors are needed to create a single stream to 28R or to incorporate BDEGA East downwind into the flow, early adjustments to DYMND arrivals might have the least noise impact on residents.
7	SERFR + BSR Woodside+ Mid- Peninsula	WSC	ST	FLIGHT FROM THE SOUTH NIGHTTIME HOURS During nighttime hours only, determine if arrivals from the south (such as on the SERF/BSR) could instead file a route which would terminate to the east of the Bay for an approach to Runway 28R.	During the nighttime hours only , the concept is to allow aircraft to file a routing similar to an LAX-OAK route (such as KLAX-CASTA6-GMN-RGOOD-EMOZOH3 to MYNEE), then from MYNEE (or other) direct ARCHI or ANETE, then conduct a noise-friendlier approach such as the FMS Bridge Visual 28R, Quiet Bridge Visual 28R, RNAV (RNP) Y 28R or if required, ILS 28R.
8	BDEGA West Downwind OCEANIC SERFR/ BSR ARRIVALS	WSC	LT	NIGHTTIME HOURS APPLICABLE TO SFO AND OAK FLIGHTS During nighttime hours only, whenever aircraft fly over sensitive areas, the RT requests that every effort be made to keep aircraft at a higher altitude than typical daytime altitudes. Consider using extra flight distance over the Bay to 28R to dissipate extra altitude.	<i>During nighttime hours only</i> , the goal is for BDEGA arrivals to be assigned the EAST Downwind, the goal for OCEANIC arrivals is for the flights to file for an arrival substantially over water (ex. BDEGA East Downwind) and the goal for SERFR/BSR is to file for an arrival to the east of the Bay. However, in the interim, and at any time flight over sensitive areas is absolutely required, higher altitudes over land might be dissipated by flight over the Bay to a 28R “noise-friendlier” approach. The amount of higher altitude available over land is related to the amount of miles flown to intercept the 28R approach.
9	RWY 28 APPROACHES Foster City	NCT	ST	Regardless of the time of day, whenever there is a single stream operation to only one runway, aircraft should approach and land only on Runway 28R.	This request is in accordance with NCT SOPs.
10	RWY 28 APPROACHES Foster City	NCT	ST	When landing single stream to 28R or landing both 28L/28R in VMC, aircraft landing 28R should be assigned noise “friendlier” approaches such as FMS Bridge Visual 28R, Quiet Bridge Visual, or RNAV (RNP) Y 28R.	This request is substantially in accordance with the NCT SOPs.
11	RWY 28 APPROACHES Foster City	NCT	ST	NIGHTTIME HOURS ATC should make every effort to coordinate traffic arrivals to create a single stream of traffic to land only on Runway 28R.	Depending on weather conditions, aircraft would be expected to fly the FMS Bridge Visual 28R, the Quiet Bridge Visual, the RNAV (RNP) Runway 28R, (or if conditions require) the ILS 28R or other approach to Runway.
12	RWY 28 APPROACHES Foster City	OKC*	LT	Determine the feasibility of creating dual offset (VMC or IMC) RNAV, RNAV (RNP) or other type of approach to Runway 28L and to Runway 28R.	This requested concept would create two offset paths with both the 28L path and the 28R path remaining well clear of Foster City and other bayside communities until past the San Mateo Bridge when aircraft would then line up with each runway for landing.
13	MENLO	NCT	ST	In VMC, aircraft should cross MENLO waypoint at or above 5000’.	The SFO Aircraft Noise Abatement Office and Northern California TRACON have an agreement that states when able, aircraft will cross the MENLO intersection VMC at 5,000’ MSL and IMC at 4,000’ MSL..

				DEPARTURES	
14	NIITE HUSSH	WSC	ST	This procedure should be flown as charted including flying over the NIITE flyover waypoint as specified in the departure procedure.	When the NIITE Southbound transition is published, flights should fly the complete published departure unless a 050° Heading is available as an alternative.
15	NIITE HUSSH	WSC	LT	NIITE/HUSSH SOUTH NIGHTTIME HOURS APPLICABLE TO SFO AND OAK FLIGHTS Create a south transition for the NIITE DP that keeps traffic over the Bay and ocean until a high altitude is attained. The south transition to the NIITE DP should also include applicability of that transition to the OAK HUSSH DP	Since the NIITE DP has a transition for westbound traffic to GOBBS waypoint, a southbound transition could follow a track using the PYE 135° radial (which defines GOBBS) from GOBBS to the PORTE waypoint. Some have suggested that the track should remain offshore for some distance beyond PORTE which could be done using a portion of the OFFSHORE Dep.
16	NIITE	NCT	ST	NIITE/HUSSH SOUTH NIGHTTIME HOURS APPLICABLE TO SFO AND OAK FLIGHTS While awaiting the development of a NIITE/HUSSH SOUTH transitions, NCT is requested to use the NIITE DP track to GOBBS and then vectors from GOBBS southbound (keeping offshore) at least until PORTE or further south.	This vector request mirrors the long-standing NCT SOP which reflects, in essence, a vector to GOBBS <i>"Between the hours of 2200 and 0700 local (Sundays to 0800), vector oceanic departures over the Bay to pass over the north end of the Golden Gate Bridge."</i> This request would simply add on a request for a vector from the vicinity of GOBBS southbound to remain well clear of the Coastline.
17	NIITE	NCT	ST	NIITE NIGHTTIME HOURS Determine if Runway 10 take-offs can be authorized to use the NIITE DP. If not, create a departure to allow Runway 10 take-offs to make a left turn up the Bay to NIITE waypoint.	Apparently safety concerns resulted in the removal of the authorization for Runway 10 take-offs to use the NIITE DP. Perhaps these concerns could be reviewed to determine if another departure routing or transition could be created to ensure safety.
18	NIITE	WSC	ST	NIGHT-NIITE/HUSSH: determine if aircraft can file for SFO CUIT Departure or the OAK SILENT Departure and then be vectored IAW NCT SOPs out to GOBBS...and then southbound.	Or perhaps there is a way for the Nighttime Hours southbound aircraft that would normally file for CNDEL/SSTIK, to file for NIITE with a GOBBS transition, then vector past PORTE to an on-course?
19	NIITE	NCT	ST	NIITE NIGHTTIME HOURS While awaiting authorization for Runway 10 departures to use the NIITE DP, the RT requests that aircraft be vectored to mirror the NIITE DP.	While awaiting authorization for Runway 10 departures to use the NIITE DP (or other appropriate procedure), the RT requests that RWY 10 departures be vectored IAW TRACON procedures - up the Bay (~330° heading) to join the NIITE or be vectored up to the vicinity of NIITE, thence vectored to the vicinity of GOBBS. (and if southbound), thence via a southbound vector remaining well off the land.
20	050° HEADING	NCT	ST	SFO 050° HEADING NIGHTTIME HOURS APPLICABLE TO SFO AND OAK FLIGHTS The RT supports the use the 050° heading from SFO Runways 01 and a comparable OAK Rwy 30 heading down the Bay at night to the maximum extent feasible for aircraft departures to southern destinations.	In addition to the 050° heading, use of the NIITE DP with the new southbound transition-when approved- is also an option. Use of a "down the Bay" heading -- ~ 050° heading for SFO and a comparable heading for OAK south departures is important procedure to reducing noise impact, but not to imply that the RT is requesting increased use of Runways 1 for departure.

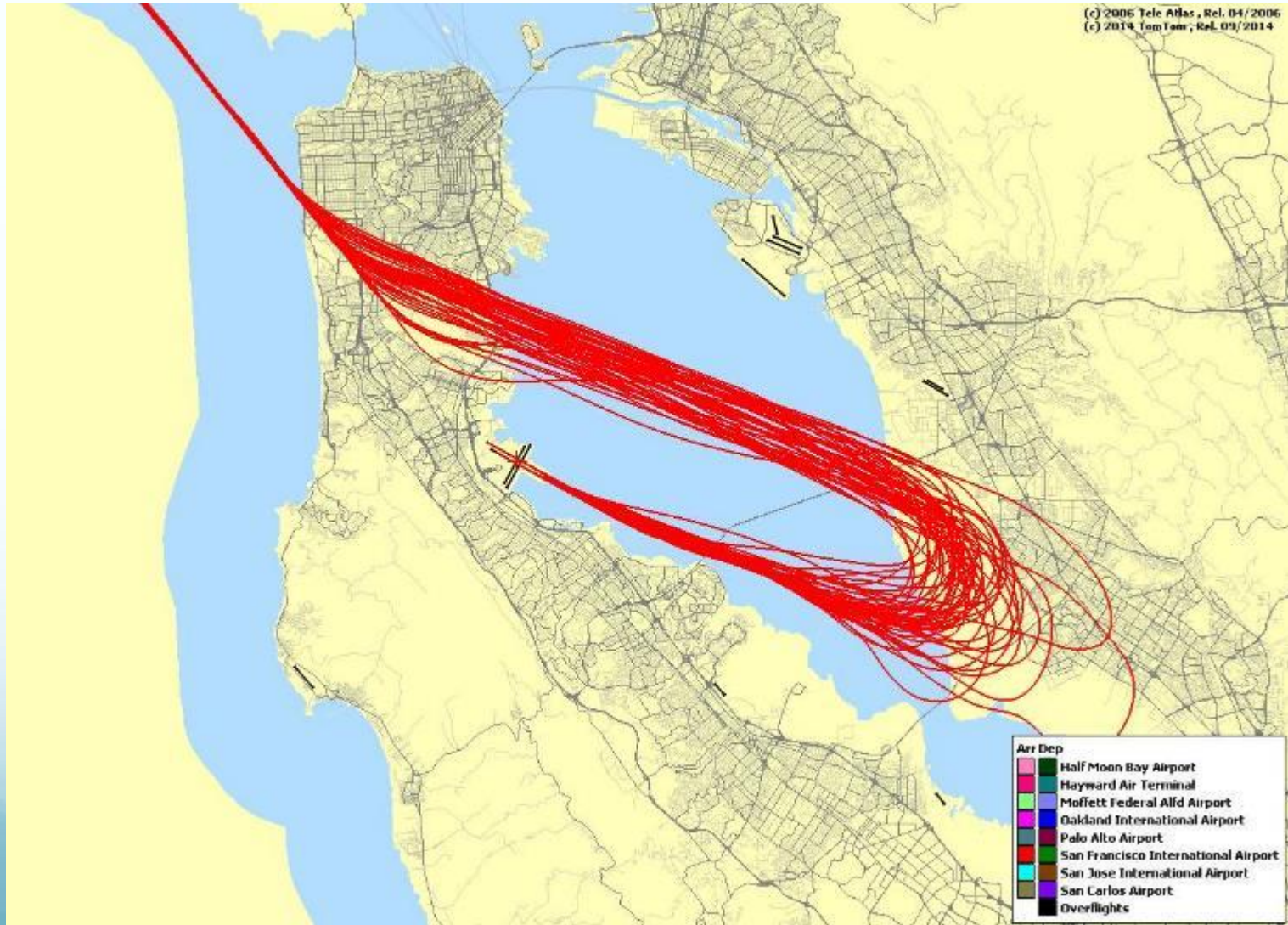
21	RWY 28 STRAIGHT OUT DEP NIGHTTIME RWY DEP	NCT	LT	<p>RWY 28/10 NIGHTTIME HOURS STRAIGHT-OUT DEPARTUES</p> <p>During the nighttime hours only—Is there any ability to eliminate or raise the 3000’ altitude limit on these departures?</p>	Notwithstanding any existing airspace constraints, do the nighttime hours allow any flexibility in these constraints that could allow deleting the 3000’ level-off?
22	RWY 28 DEP INCL ODO + NIGHTTIME RWY DEP	NCT	ST	<p>RWY 28/10 NIGHTTIME HOURS</p> <p>Between 10pm and 7am, the RT requests maximum use of SFO preferential runways for departure: Runways 10 then Runways 1 and then Runways 28 (TRUKN or NIITE).</p>	In accordance with NCT SOP.
23	RWY 28 DEP INCL ODO + NIGHTTIME RWY DEP	NCT	LT	<p>RWY28 DEP-ODO NIGHTTIME HOURS</p> <p>Determine if FAA regulations would allow for the creation of a departure path for Runways 10 that would <i>not require</i> the application of the ODO regulations.</p>	Could Runways 10 departing aircraft be separated by altitude and/or lateral path which would then remove or shorten the duration of the ODO requirements.
24	RWY 28 STRAIGHT OUT DEP	NCT	LT	Determine if the existence of a VFR flyway or other conflicting airspace use off the coastline in the vicinity of the extended Runways 28 centerline, leads to Runway 28 straight-out departures being required to level off at 3000’.	If this altitude restriction is due to VFR airspace, determine if a modification of this VFR airspace is warranted in the current Class B Airspace Modification process. If due to other airspace restriction, what actions could be taken to ameliorate this conflict.
25	CNDEL	NCT	ST	This procedure should be flown as charted including flying over the CNDEL flyover waypoint and flying to the PORTE fly-by waypoint as specified in the departure procedure.	<p>Vectors prior to CNDEL may interfere with the ability of SSTIK to be flown as published.</p> <p>Avoid any vectors before CNDEL; after CNDEL, avoid vectors as long as possible, avoid vectors that fly down the Peninsula to waypoints beyond PORTE.</p> <p>If vectoring is required for safety only -- minimize overflight of sensitive noise areas.</p> <p>If vectoring over the Bay and Ocean, use of the NIITE waypoints of NIITE and GOBBS for aircraft routing might be appropriate routing</p>
26	CNDEL	WSC	LT	Determine if a revised southbound transition (with additional waypoints?) for the CNDEL procedure could “contain” the flight paths further west (perhaps over the ocean) to allow expanded clear space for possible modification of the SSTIK departure.	
27	CNDEL	WSC	ST	Determine if a southbound transition for CNDEL could effectively use flight over bodies of water to gain altitude before flying over noise sensitive land use.	Such a southbound transition should not move noise to noise-sensitive areas not under the published CNDEL Departure and should not interfere with a possible expanded SSTIK departure path.

28	CNDEL	NCT	LT	<p>CNDEL NIGHTTIME HOURS</p> <p>For OAK southbound aircraft, until the NIITE southbound transition has been finalized, use of the NIITE/HUSSH DP or vectors to replicate the NIITE/HUSSH DP with a vector from GOBBS to the south to remain offshore would be a preferred nighttime alternative.</p>	<p>For OAK southbound aircraft, use of the left turn down the Bay (~135° heading) with no flight over sensitive areas is also supported.</p>
29	SSTIK	WSC	LT	<p>Aircraft should fly the procedure as charted including flying over the SSTIK flyover waypoint and flying to the PORTE fly-by waypoint as specified in the departure procedure.</p>	<p>Aircraft should be vectored only for safety, not for efficiency.</p> <p>Avoid any vectors before SSTIK. After SSTIK, avoid vectors off the procedure except to allow additional altitude gain by flying over water.</p> <p>Avoid any vectoring which bypasses PORTE.</p> <p>If vectors are needed for safety—and regardless of aircraft altitude—avoid vectors down the Peninsula to waypoints beyond PORTE. If vectoring is required for safety only, minimize overflight of sensitive noise areas.</p>
30	SSTIK	WSC	LT	<p>Move SSTIK N + E as much as feasible to allow maximum altitude gain before turning to fly over land.</p>	<p>Determine the necessity for one or more additional waypoints on land after SSTIK to provide lateral path guidance to airplanes to reduce noise impact.</p> <p>Create an additional waypoint over the ocean to guide aircraft over water to PORTE.</p> <p>Determine if the minimum altitude required at SSTIK can be raised before a left turn (vicinity of SSTIK).</p> <p>Determine if a reduced airspeed (220kts?) can be required until after established in the left turn from SSTIK so aircraft climb at a higher angle of climb approaching land.</p>
31	SSTIK	NCT	ST	<p>SSTIK NIGHTTIME HOURS</p> <p>During the nighttime hours only, as an alternative to the SSTIK southbound departures path, vector these aircraft via a 050° heading or via the NIITE lateral track to GOBBS and the Ocean.</p>	<p>While awaiting the development of a NIITE SOUTH transition, NCT is requested to consider using NCT SOP of 050° or by NCT vectors of 330° up the Bay replicating the NIITE DP to GOBBS and then vectors from GOBBS south to PORTE or further offshore.</p>
		RT	ST + LT	<p>The SFO Airport and the SFO RT will support the FAA in their efforts. The RT will provide data regarding land use and terrain height for areas throughout the RT region to assist NCT in using less sensitive noise areas for vectoring. SFO and RT will work with airline representatives to encourage use of “noise-friendlier” options for flight planning and operations. The RT will provide community input to the FAA and will make recommendations to the FAA based on community consensus for changes.</p>	
END					

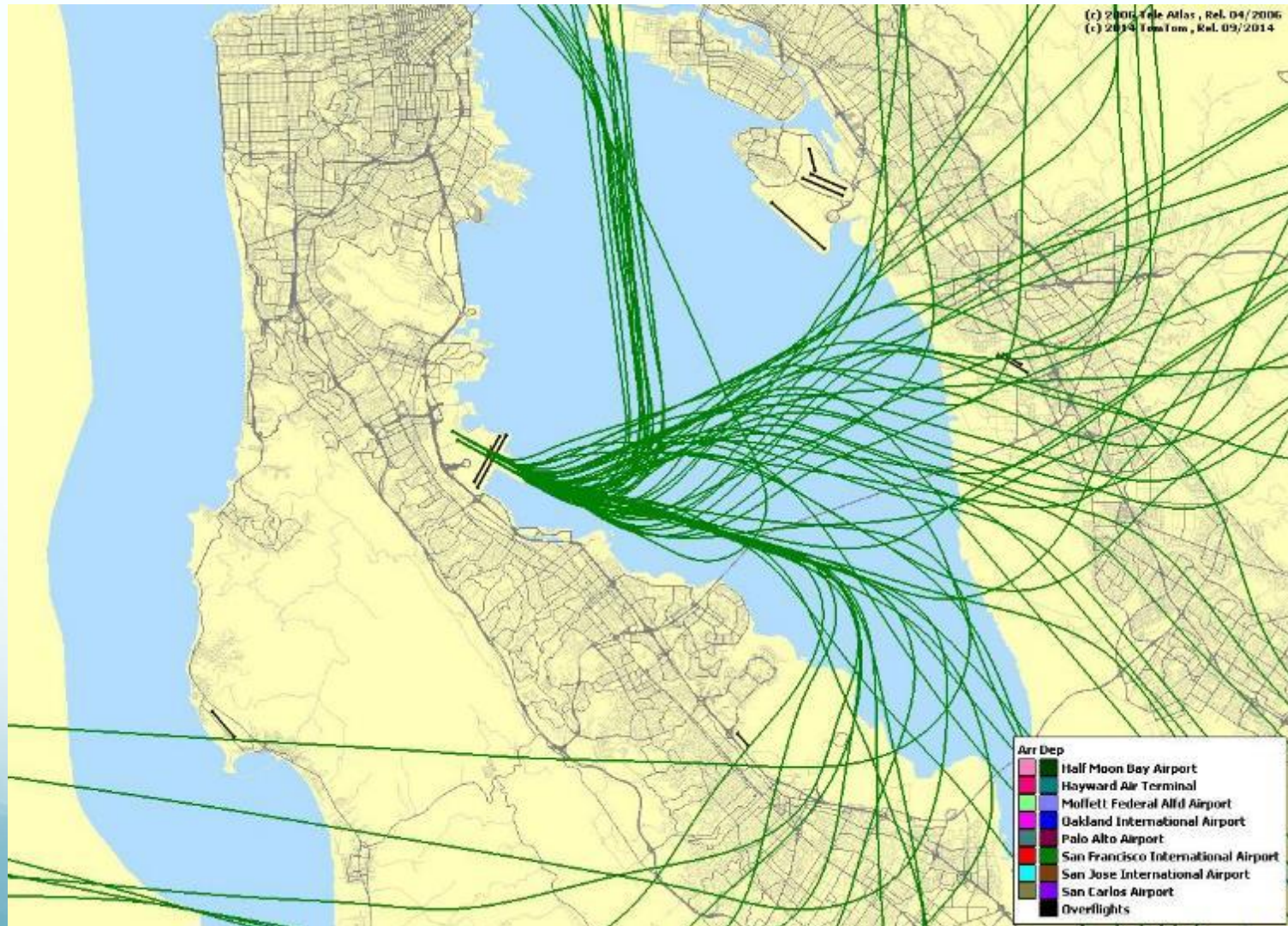
Runway 28L Offset



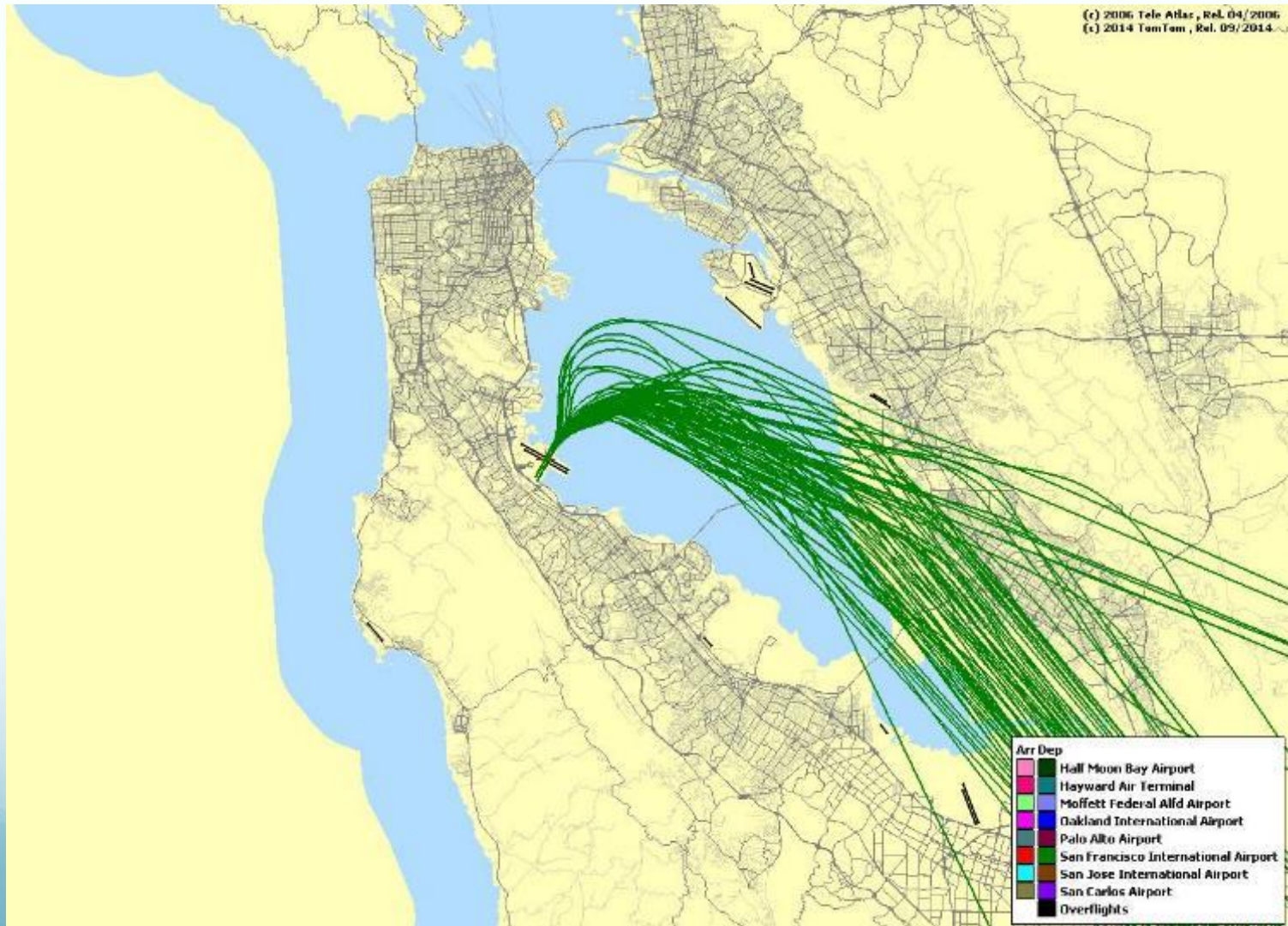
BDEGA East Arrival



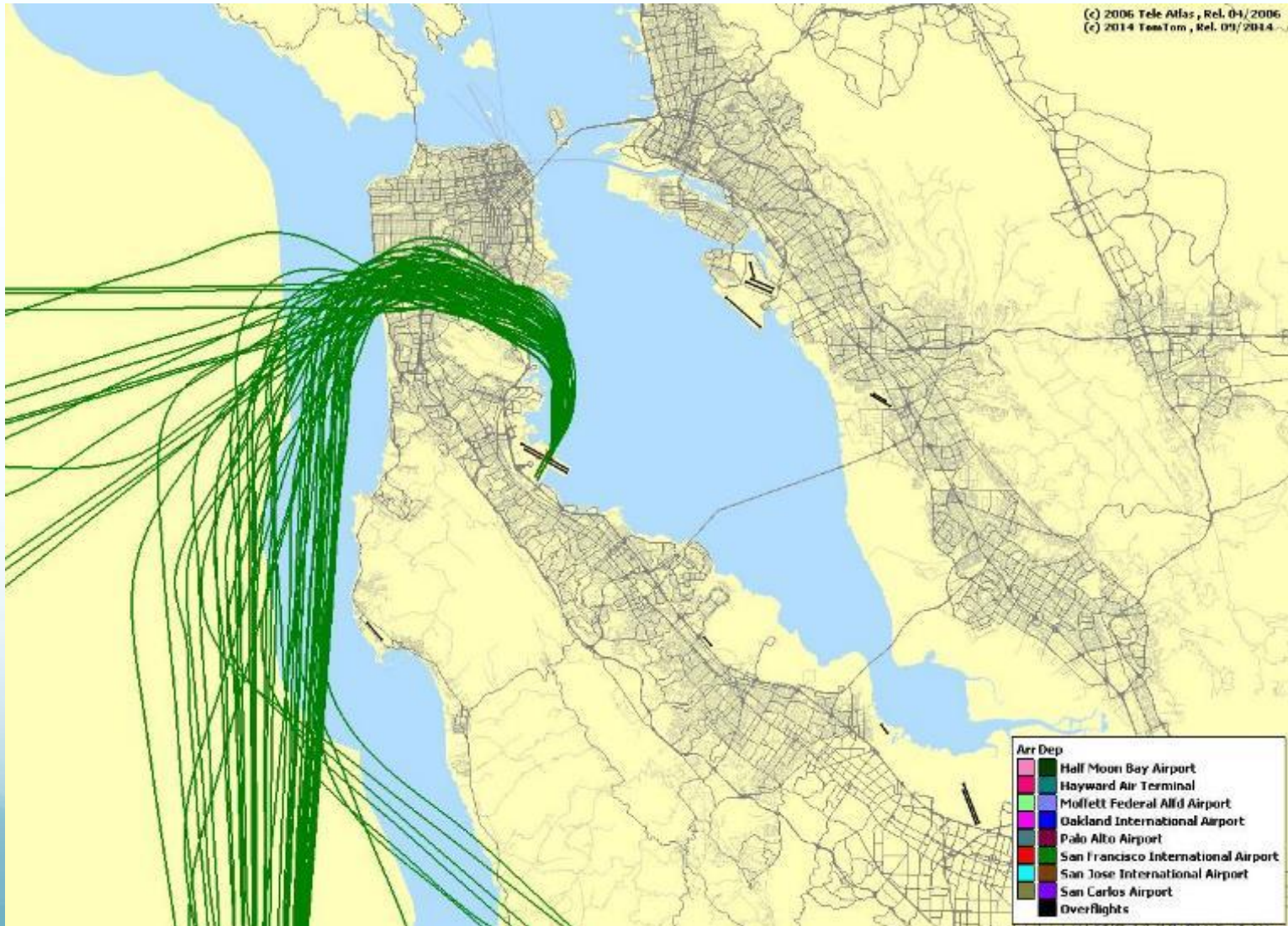
Runway 10 Departures



Runway 01 050 Departures



Runway 01 Offshore Departures



Runway 30 CNDEL Bay Departures

