2 Purpose and Need

Under NEPA, an Environmental Assessment (EA) must describe the purpose and need for the Proposed Action. The following sections discuss the need for the Proposed Action and provide specific examples of the overall problems in the Northern California Metroplex. This discussion is followed by a description of the purpose for the Proposed Action, the criteria that will be used in this EA to evaluate the project alternatives, and the requested federal actions to facilitate completion of the NorCal OAPM Project.

2.1 The Need for the NorCal OAPM Project

In the context of an EA, the "need" refers to the problem that the Proposed Action is intended to resolve. The problem in this case is the inefficiency of the existing aircraft flight procedures in the Northern California Metroplex. Efficiency in the Northern California Metroplex can be substantially increased by updating existing conventional procedures that use older ground-based navigational aid (NAVAID) technology with procedures that employ newer area navigation (RNAV) technology. As described in Chapter 1, as of 2011, 95 percent of commercial aircraft that operate in the Northern California Metroplex are RNAV-equipped. However, all but two procedures currently in use in the Metroplex are conventional procedures.

Conventional procedures lack efficiencies inherent in RNAV-based procedures because they rely on technology that cannot provide specific navigational benefits for aircraft, including predetermined speeds or altitudes. Furthermore, as discussed in Section 1.2.5.1, conventional procedures are subject to lateral and vertical flight path limitations that are eliminated using RNAV technology. RNAV procedures can reduce the need for controllers to employ air traffic management tools, such as vectoring and speed adjustments, thus reducing controller and pilot workload. In turn, this adds efficiency to an air traffic system by enhancing predictability, flexibility, and route segregation. By taking advantage of the increased benefits associated with readily available RNAV technology, the FAA is better able to meet one of its primary missions as mandated by Congress – to provide for the efficient use of airspace– to develop plans and policy for the use of the navigable airspace, and to assign by regulation or order the use of the airspace necessary to ensure the safety of aircraft and the efficient use of airspace.[14]

The following sections describe in greater detail the problem and the factors that have caused the problem. Explanations of the technical terms and concepts used in this chapter are found in Chapter 1, *Background*.

2.1.1 Description of the Problem

As previously stated, all but two of the procedures currently in effect in the Northern California Metroplex are conventional procedures. This means that all existing Standard Instrument Departure (SID) and most Standard Terminal Arrival Route (STAR) procedures are not as efficient as procedures based on RNAV technology.

The lack of efficiency in the Northern California Metroplex is reflected in data that indicates a majority of aircraft are not following the currently published conventional SIDs and STARs.

[14] 49 U.S.C. § 40103(b).

As a result, controller and pilot workload may be greater than necessary, as aircraft are flying less efficient, more complex routes. For example, some aircraft flying SID procedures from the Study Airports may rely on radar vectors issued by controllers for guidance to their exit fixes. It may be necessary for any number of aircraft to fly an extended common route prior to diverging on their separate courses to their assigned exit fixes. To ensure appropriate separation between aircraft along the common route, controllers may be required to employ airspace management tools, such as issuing speed control, vectors, or holding. This can result in more frequent controller-to-pilot and controller-to-controller communication. This increased communication may result in less predictable flight paths due to the time needed for a controller to issue an instruction to a pilot and for a pilot to confirm the instruction prior to execution. As a result, more airspace must be protected to allow aircraft the room to operate. This reduces flexibility in managing aircraft and results in less efficient operations.

The outdated published procedures include multiple transitions that, for various reasons, are no longer used. The lack of useable transitions provides for less efficient aircraft departure flow from the Northern California Metroplex as they must concentrate along fewer routes. Furthermore, as pilots must rely upon published procedures for route planning, this can result in inefficient fuel planning for departing aircraft.

Aircraft arriving to the Northern California Metroplex frequently fly STARs that use the same entry points into Metroplex airspace. This can result in conflicts between arrival flows, requiring controllers to issue vectors or order aircraft to level-off to maintain adequate separation. This results in prolonged flight times. Combined, these factors form the basis for the problem within the Northern California Metroplex.

It is important to note that a key design constraint is safety. Any proposed change to a procedure to resolve the problem must not compromise safety, and if possible must enhance it. Although the current procedures are outdated, they meet current FAA safety criteria. The Proposed Action is not being proposed to address any safety issues.

2.1.2 Causal Factors

A problem (or need) is best addressed by examining the circumstances or factors that when combined together result in its cause. For the Northern California Metroplex, the FAA considers the inefficiencies and resulting complexities associated with existing SID and STAR procedures to be the primary foundation for the problem. Addressing the causal factors behind the problem will ultimately facilitate development of a reasonable alternative designed to resolve the problem (i.e., meet the “purpose”).

As summarized above, several issues have been identified as causes for the inefficiencies in the Metroplex. For purposes of this EA, these issues were grouped into three key causal factors:

- Lack of predictability in the efficient transfer of traffic between enroute and terminal area airspace;
- Complex converging route and/or procedure interactions; and,
- Lack of flexibility in the efficient transfer of traffic between the enroute and terminal area airspace.

These three causal factors are discussed in the following sections.

2.1.2.1 Lack of Predictability in the Efficient Transfer of Traffic between Enroute and Terminal Area Airspace

Airports with a significant volume of aircraft operating under Instrument Flight Rules (IFR) need SID and STAR procedures to help achieve optimal efficiency. SID and STAR procedures establish consistent flight routes, which help maintain a predictable flow of aircraft to/from an airport. Predictable, defined routes provide pilots and controllers the ability to know ahead of time how, where, and when an aircraft should be operated. This allows for better planning of airspace use and aircraft control within a given volume of airspace. A predictable route may include expected locations (i.e., where), altitudes (i.e., where and how high), and speeds (i.e., how fast and when) at key points along a flight path. A procedure that provides these elements results in more predictable routes for both pilots and controllers.

Aircraft performance and/or piloting technique can vary, and as a result, may play a factor in reducing predictability. Because conventional procedures are less predictable than RNAV procedures, controllers use vectoring and verbal instructions governing speed and altitude level-offs to ensure safe vertical and lateral separation between aircraft. As discussed in Section 1.2.5.1, RNAV procedures enable aircraft to follow more accurate and better-defined flight routes in areas covered by GPS-based NAVAIDs. This allows for more predictable routes, with fixed locations and altitudes that can be planned ahead of time by the pilot and air traffic control. Fixed routes help maintain segregation between aircraft by providing defined separation of traffic. This allows for improved use of the airspace. Therefore, the greater the number of RNAV procedures in a metroplex, the greater the degree of predictability. **Table 2-1** summarizes the current availability of conventional and RNAV-based procedures for the four Study Airports.

Table 2-1 Existing STAR and SID Procedures for SFO, OAK, SJC, and SMF (1 of 2)

	Current Procedures			
	Conventional Procedures		RNAV Procedures	
Airport	**STAR**	**SID**	**STAR**	**SID**
SFO	• BIG SUR TWO • GOLDEN GATE SIX • HADLY TWO • LOCKE ONE • MODESTO FOUR • POINT REYES ONE • RISTI FOUR • STINS TWO	• DUMBARTON SIX • EUGEN EIGHT • GAP FIVE • LUVVE THREE • MOLEN FIVE • OFFSHORE SEVEN • PORTE FIVE • QUIET FIVE • REBAS SIX • SAN FRANCISCO ONE • SHORELINE FIVE	• YOSEM TWO	None

Table 2-1 Existing STAR and SID Procedures for SFO, OAK, SJC, and SMF (2 of 2)

Airport	Current Procedures: Conventional Procedures STAR	Conventional Procedures SID	RNAV Procedures STAR	RNAV Procedures SID
OAK	• COMMO ONE • HADLY TWO • LOCKE ONE • MADWIN FIVE • MANTECA TWO • MARVN ONE • PANOCHE THREE •	• COAST SIX • MARINA SIX • NIMITZ THREE • NUEVO SIX • OAKLAND SIX • SALAD TWO • SCAGGS ISLAND THREE • SILENT EIGHT • SKYLINE FOUR	RAIDR THREE	None
SJC	• BRINY ONE • CAPITOL THREE • EL NIDO FIVE • GOLDEN GATE SIX • JAWWS THREE • POINT REYES ONE • ROBIE THREE	• ALTAM SEVEN • DANVILLE TWO • LOUPE ONE • MOONY THREE • SAN JOSE NINE • SUNOL SIX	None	None
SMF	• CONCORD TWO • FLUNK THREE • TUDOR TWO • WRAPS FIVE	• DUDES NINE • FROGO SIX	None	None

Table Notes:
SFO: San Francisco International Airport
OAK: Metropolitan Oakland International Airport
SJC: Norman Y. Mineta San José International Airport
SMF: Sacramento International Airport

Source: NFDC, accessed October 2013.
Prepared By: ATAC Corporation, October 2013.

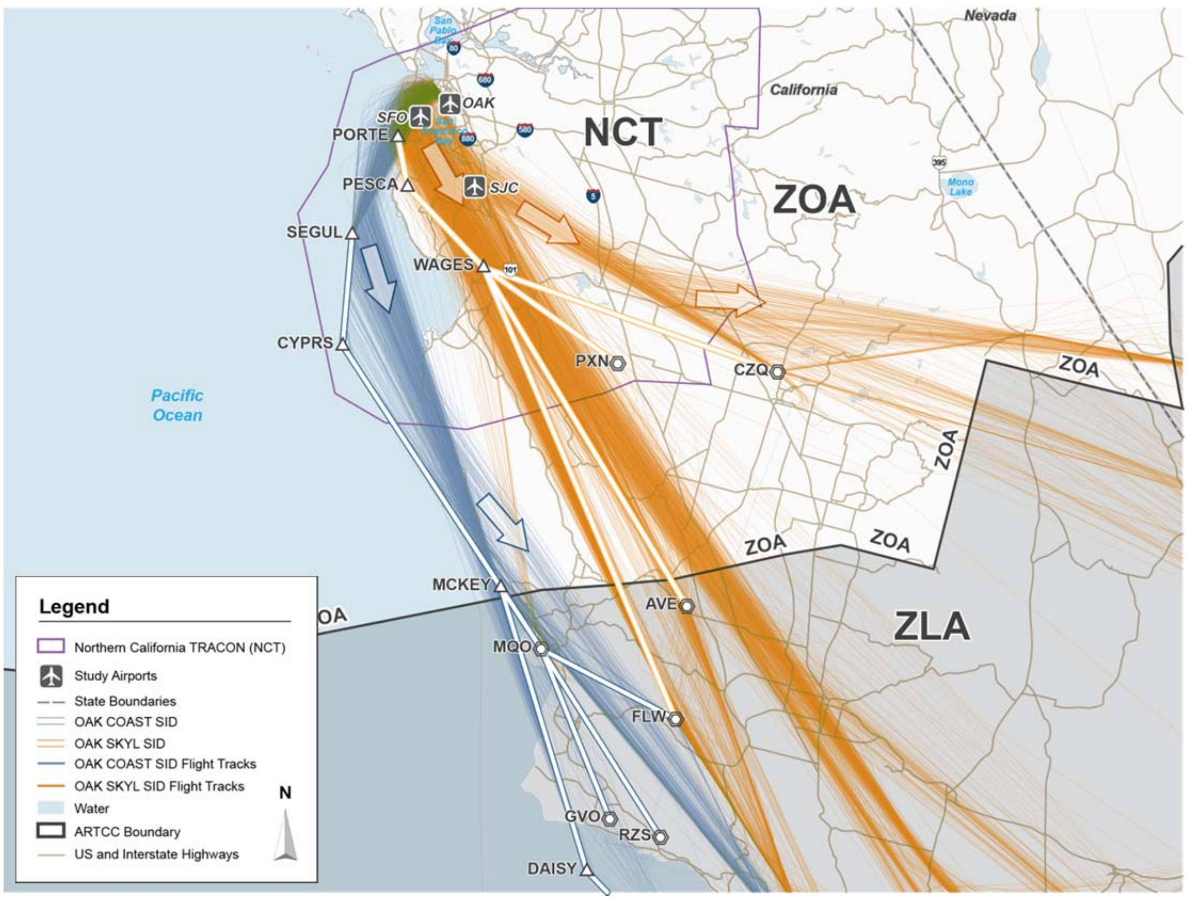
The following sections describe the two areas – ground path and vertical path – in which conventional procedures in the Northern California Metroplex result in less predictable air traffic management when compared to RNAV procedures.

Ground Path

The ground path is the track, or trace, along the surface of the earth directly below an aircraft that represents where it is flying. Since most of the STAR and SID procedures in the Northern California Metroplex airspace use ground-based NAVAIDs, navigation can be affected by line-of-sight and signal degradation issues associated with this type of technology. This limits where conventional procedure routes can be located. Because the NAVAIDs used are less precise, conventional procedures require wider areas of airspace to protect aircraft flying on neighboring routes. For various reasons procedures can become outdated over time. This can result in aircraft flying routes that differ from those that are published. Due to these factors, conventional procedures are less precise and less efficient. Because these procedures cannot provide more predictable controls such as specific speeds or altitudes, controllers use vectoring and speed control to manage traffic.

Exhibit 2-1 depicts the published SKYLINE and COAST SIDs, as well as flight tracks of aircraft departing OAK that are operating on these procedures. Operations on these procedures provide an example of inaccurate ground path. As shown by the arrows, most aircraft are not flying the published SIDs but are relying on vectors issued by controllers to fly more direct routes to their designated exit points. Because of the extensive vectoring required, this results in more frequent controller-to-pilot and controller-to-controller communication, increasing controller and pilot workload and reducing predictability.

Exhibit 2-1 Unpredictable Ground Path – SKYLINE and COAST SIDs



Notes:

SFO – San Francisco International Airport	*OAK – Oakland Metropolitan International Airport*
SJC – Norman Y. Mineta San José International Airport	*SMF – Sacramento International Airport*
NCT –NorCal TRACON	*ZOA – Oakland ARTCC* *ZLA – Los Angeles ARTCC*

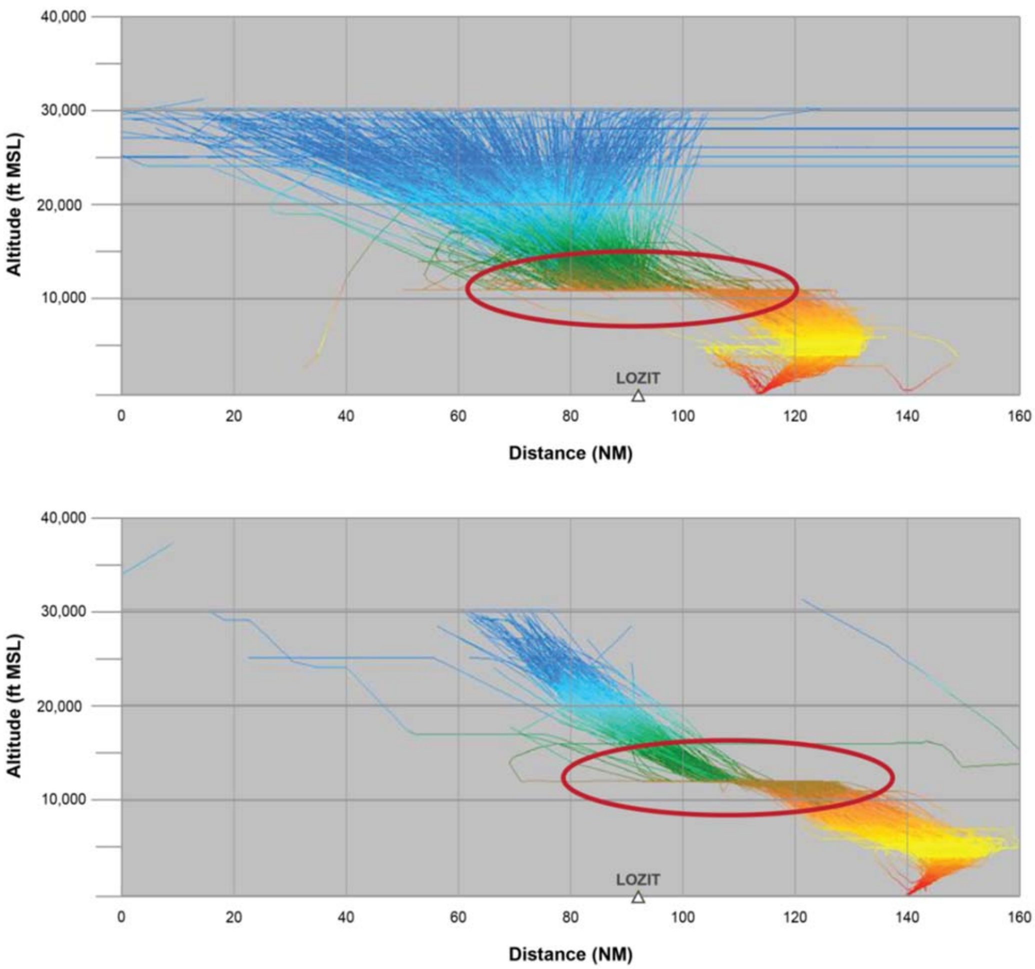
Source: ATAC (PDARS radar data), June 2012.
Prepared by: ATAC Corporation, October 2013.

Vertical Path

In guiding aircraft along their routes, controllers direct aircraft to climb, descend, or level off. During climb, the point when an aircraft reaches an assigned altitude may vary depending upon a combination of factors, including aircraft performance, weather conditions, and/or piloting technique. Aircraft arriving to or departing from the Study Airports are often required to level off during descent or climb to maintain adequate vertical separation from other aircraft travelling nearby. Flight time and distance can be increased for traffic flows with interrupted climbs and descents as the aircraft exit/enter the terminal airspace or transition to/from the runway approach environment. Unpredictable vertical guidance resulting from conflicting traffic can lead to increased controller workload and inefficient aircraft operation.

The GOLDEN GATE STAR is an arrival procedure from the north that is used by traffic arriving to both SFO and SJC. **Exhibit 2-2** shows vertical profiles for aircraft arriving over the LOZIT waypoint on the GOLDEN GATE STAR to SFO (top) and SJC (bottom) (an overhead view of aircraft operating on this procedure is provided in **Exhibit 2-3**.) SFO-bound traffic is directed to level-off at 11,000 feet above mean sea level (MSL) and SJC-bound traffic is directed to level-off at 12,000 feet MSL.

Exhibit 2-2 Unpredictable Vertical Profile – SFO/SJC Arrivals on the GOLDEN GATE STAR over LOZIT



Source: ATAC (PDARS radar data), June 2012.
Prepared by: ATAC Corporation, October 2013.

The level flight segment is noted by the collection of orange/green flight tracks flight tracks circled in red. This level flight segment extends for approximately 45 nautical miles (nm).

Extended level-offs often result in increased controller-to-pilot communication and may require traffic alerts to pilots of the proximity of other aircraft or point-outs to other controllers responsible for neighboring airspace sectors. This adds to complexity (e.g., higher controller workload, the number of times controller-to-pilot communication occurs, and inefficient use of aircraft performance capabilities during a descent or climb.) This results in less predictable routes and reduced airspace efficiency.

2.1.2.2 Complex Converging Route and/or Procedure Interactions

In some areas, the separation between arrival and departure flight routes (e.g., lateral separation between two routes or vertical separation between crossing routes) does not allow for fully efficient use of airspace. This requires that controllers carefully observe aircraft activity along the proximate or crossing flight routes and be prepared to manage aircraft to maintain safe separation distances.[15] For example, where arrival and departure flight routes intersect, flight level-offs may be required for either arrivals or departures to ensure adequate vertical separation between aircraft. In some cases, arriving and departing aircraft on nearby flight routes may need to be vectored to ensure safe lateral separation. In other cases, controllers may need to issue point-outs.

All of the actions described above require verbal controller-to-controller and/or controller-to-pilot communication. This increases pilot and controller workload and system complexity. In addition, vectoring and level-offs can reduce airspace and flight efficiency by adding time and distance to flights as aircraft enter/exit terminal airspace.

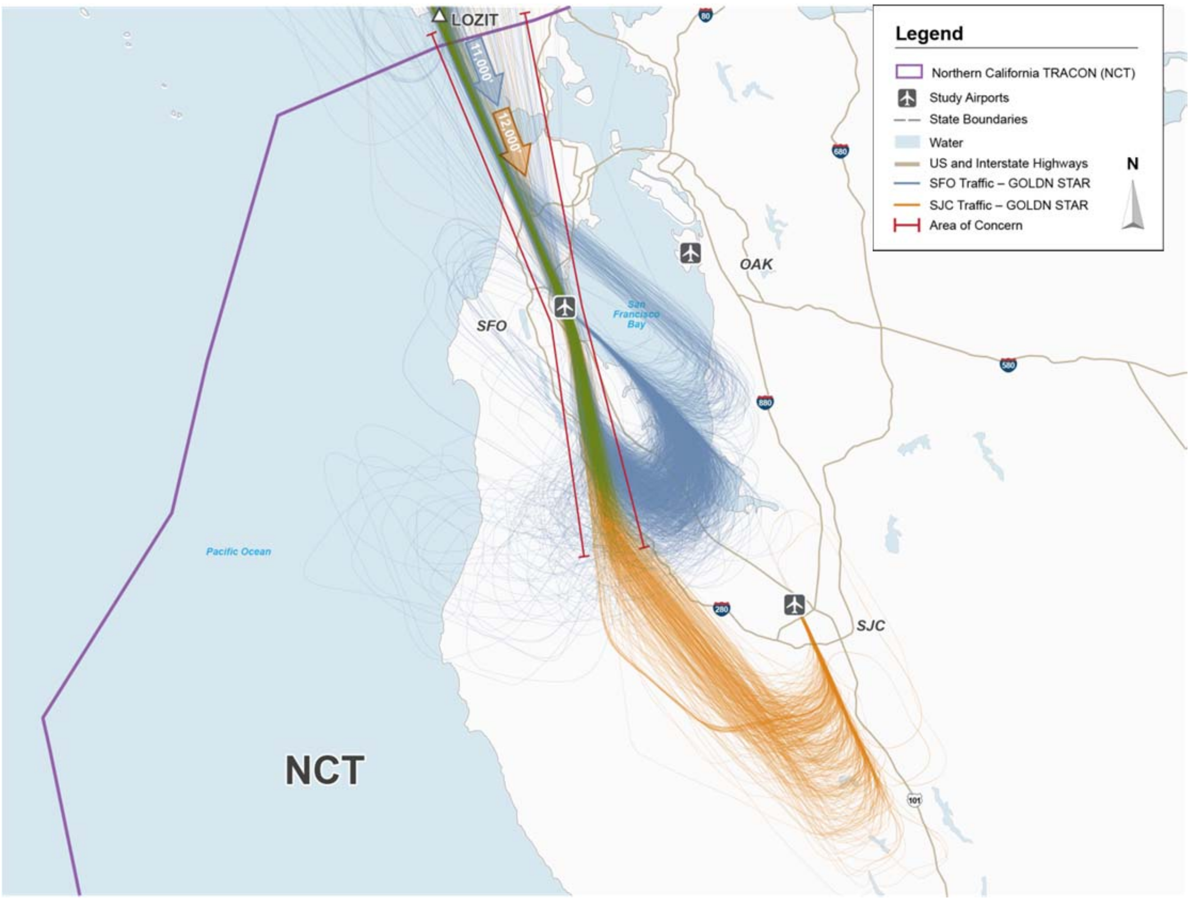
The following sections provide two specific examples of how these interactions function within the Northern California Metroplex area.

SFO and SJC Arrivals on the GOLDEN GATE STAR

Exhibit 2-3 shows how SFO- and SJC-bound traffic intersects on the GOLDEN GATE STAR. Near the LOZIT intersection, approximately 40 miles northwest of San Francisco, arrivals to SFO are directed to level off at 11,000 feet and arrival traffic to SJC is directed to level off at 12,000 feet. This is done to ensure safe separation between aircraft operating along the same route. However, level flight at lower altitudes increases pilot and controller workload due to the need for increased communications.

[15] Areas where the lateral or vertical separation distances are inadequate to allow efficient use of the airspace are referred to as "confliction points" by air traffic controllers.

Exhibit 2-3 Lateral and Vertical Separation – Arrivals to SFO and SJC on GOLDEN GATE STAR



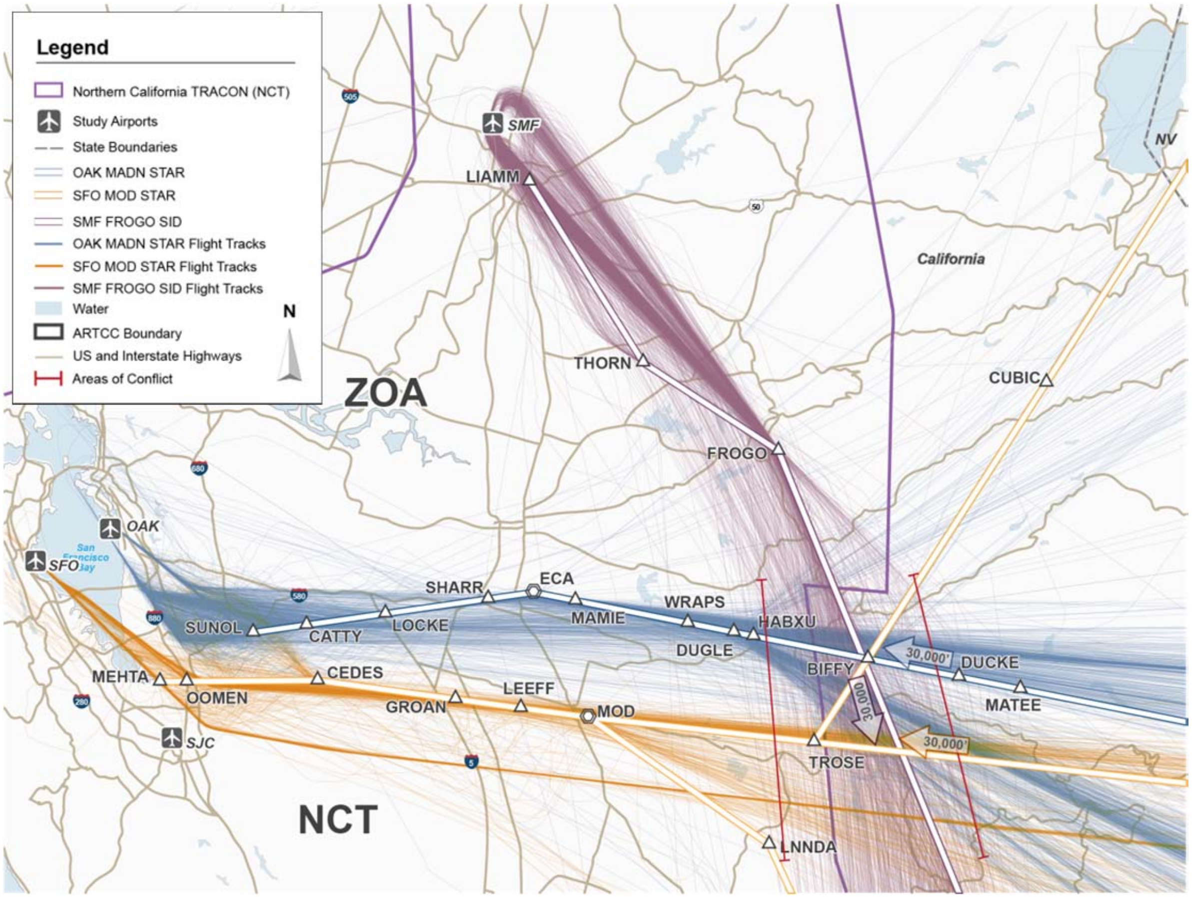
Notes:
SFO – San Francisco International Airport
OAK – Oakland Metropolitan International Airport
SJC – Norman Y. Mineta San José International Airport
NCT –NorCal TRACON

Source: ATAC (PDARS radar data), June 2012.
Prepared by: ATAC Corporation, October 2013.

SMF Departures (FROGO SID), SFO Arrivals (MODESTO STAR), and OAK Arrivals (MADWIN STAR)

The FROGO SID serves southbound departures from SMF. The procedure conflicts with the MADWIN STAR serving arrivals to OAK and the MODESTO STAR serving arrivals to SFO. **Exhibit 2-4** shows traffic on these three procedures interacting southeast of SMF and east of SFO and OAK. As indicated by the arrows, a conflict exists where traffic departing SMF on the FROGO SID would cross at the same altitude as traffic arriving to OAK and SFO on the MADWIN and MODESTO STARs. To avoid these conflicts, controllers must employ management tools such as vectors and level-offs, resulting in extended flight time and distance.

Exhibit 2-4 SFO and SJC Arrivals and SMF Departure Conflicts



Notes:

SFO – San Francisco International Airport
SJC – Norman Y. Mineta San José International Airport
NCT –NorCal TRACON
OAK – Oakland Metropolitan International Airport
SMF – Sacramento International Airport
ZOA – Oakland ARTCC

Source: ATAC (PDARS radar data), June 2012.
Prepared by: ATAC Corporation, October 2013.

2.1.2.3 Lack of Flexibility in the Efficient Transfer of Traffic between the Enroute and Terminal Area Airspace

Lack of flexibility limits air traffic controllers' ability to adapt to oft-changing traffic demands. For example, although flights are scheduled, delays in other regions or severe weather along an air traffic route may cause aircraft to enter/exit the enroute or terminal area airspace at times and locations other than those previously planned. Controllers require options to manage traffic when faced with these kinds of demands. Additional entry and exit points to and from terminal airspace can help reduce the amount of vectoring needed to maintain separation between aircraft. These elements also provide additional options when one procedure is too busy to accommodate additional traffic.

The "four corner post" airspace design presents the most efficient way to transfer aircraft to an airport from an entry point and from an airport to an exit point. In a typical four-corner post system, aircraft depart the terminal airspace through exit points to the north, east, south, and west. Aircraft arrive to the terminal airspace through entry points to the northeast, southeast, southwest, and northwest. However, implementation of a four-corner post system in the NCT terminal airspace is restricted by various factors, including geographic location, proximity of airports, runway geometry, traffic demand, and other constraints. Consequently, the transfer control areas for NCT are found in locations that best meet the unique characteristics of the Northern California Metroplex airspace.

The limited number of terminal airspace exit/entry points serving as offloads and/or separate traffic routes result in inefficient arrival/departure flows to/from Study Airports within the NCT terminal area airspace. Due to the need to merge flows that might otherwise operate independently were additional points available, the controller is not able to use the existing airspace as efficiently as possible.

The following sections further discuss flexibility issues specific to the terminal area airspace exit and entry points.

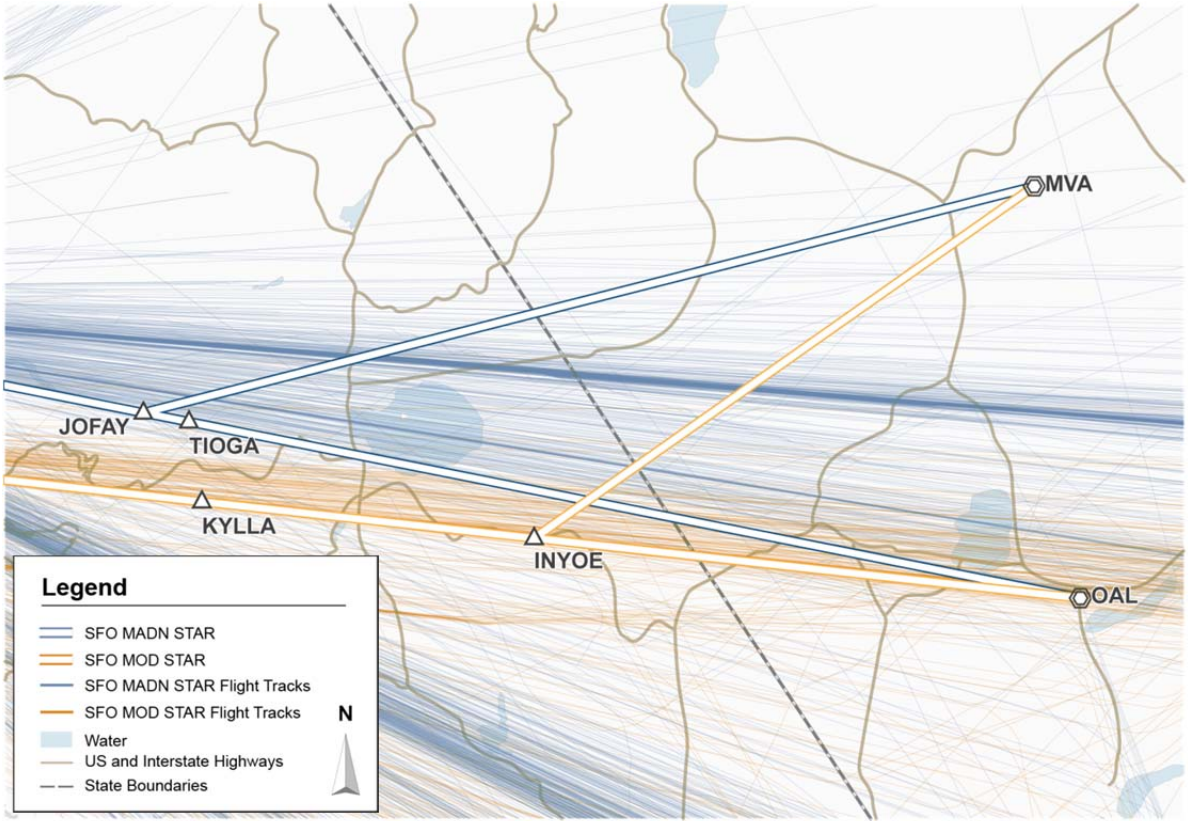
Exit Points

A majority of the aircraft departing from the Study Airports are not following the currently published procedures. For example, while most departure procedures include multiple enroute transitions, many enroute transitions are outdated and are not being used. Controllers often issue vectors to guide aircraft along alternate routes. During peak periods of departures to the east, south, and north, controllers must merge departures on multiple procedures so they can pass through shared exit points. This reduces flexibility for controllers transferring air traffic between terminal and enroute airspace as aircraft are often assigned longer and less direct routes than might otherwise be necessary were additional enroute transitions and exit points available. In addition, to allow for adequate separation between aircraft travelling the same departure paths, controllers must frequently employ management tools such as issuing vectors, speed control, and level-offs to maintain adequate separation between aircraft during their departure climbs. Controllers may also hold aircraft on the ground before takeoff to control air traffic volume in the surrounding airspace. This results in increased controller and pilot workload as well as directly affects departure flow and the overall efficiency of the Metroplex airspace.

Entry Points

Similar to the issues facing departures, arriving aircraft are not flying the currently published procedures. Multiple STARs include entry points and transitions that are no longer used. For example, **Exhibit 2-5** depicts traffic operating on the MODESTO and MADWIN STARs. The flight tracks show aircraft using the same entry point at OAL while an adjacent entry point at MVA is no longer used. (The OAL entry point is also used by several other STARs, not depicted). A lack of adequate entry points and transitions reduces flexibility for controllers managing arriving aircraft. During peak demand periods, aircraft may arrive to the same entry point requiring controllers to issue vectors, speed control, and level-offs to maintain adequate separation between aircraft. Use of these management tools increases controller and pilot workload. Therefore, a lack of useable entry points and enroute transitions can decrease the overall efficiency of the Metroplex airspace.

Exhibit 2-5 Arrivals on the MODESTO and MADWIN STARs



Source: ATAC (PDARS radar data), June 2012.
Prepared by: ATAC Corporation, October 2013.

In summary, there are several consequences that result from a lack of adequate airspace exit and entry points that affect flexibility in the management of the airspace. These consequences include:

- Merging aircraft from all airports into single departure flows for each exit point requires controllers to create greater separations between subsequent departures than would otherwise be required.
- Holding aircraft on the ground to create the necessary gaps leads to departure delays at airports during peak activity periods.
- The need for additional controller-to-pilot communication to issue the variety of instructions required to merge or separate the flow of aircraft adds to the workload of both controllers and pilots.
- Options for controllers to re-direct aircraft to avoid inclement weather or more efficiently handle sequencing are limited.
- Increased controller workload due to the lack of an adequate number of exit and entry points.
- The need to merge aircraft into a single arrival flow at each entry point can increase flight time and distances and gaps in the arrival flows do not allow for the efficient use of the airspace.

2.2 Purpose of the NorCal OAPM Project

The purpose (solution) of the Proposed Action is to take advantage of the benefits of performance-based navigation by implementing RNAV procedures that will help improve the efficiency of the airspace in the Northern California Metroplex. To meet this goal, the Proposed Action would optimize procedures serving the Study Airports, while maintaining or enhancing safety, in accordance with FAA's mandate under federal law. This goal would be achieved by reducing dependence on ground-based NAVAID technology in favor of more efficient satellite-based navigation, such as RNAV. Specifically, the objectives of the Proposed Action are as follows:

- Improve predictability in transitioning traffic between enroute and terminal area airspace;
- Improve the segregation of arrivals and departures in the airspace; and,
- Improve flexibility in transitioning traffic between enroute and terminal area airspace and between terminal area airspace and the runways.

The frequency of controller-to-pilot communication would be expected to decrease reducing the complexity of both controller and pilot workload. Improvements in arrival and departure segregation among the Study Airports would reduce the need for vectoring and level flight segments, resulting in more predictable flows.

Each objective of the Proposed Action is discussed in greater detail below.

2.2.1 Improve predictability in transitioning traffic between enroute and terminal area airspace

As discussed in Section 2.1.2.1, the lack of optimized procedures requires controllers to use vectoring as well as speed control and level-offs to ensure safe vertical and lateral separation between aircraft during the arrival and departure phases of flight. As a result, controllers and pilots experience more complex workload. This affects predictability within the Northern California Metroplex. This objective can be measured with the following criteria:

- Increase the number of RNAV procedures with altitude controls intended to optimize descent or climb patterns (measured by the count of procedures with altitude controls.)
- Provide the greater number of SIDs and STARs to and from the Study Airports based on RNAV technology (measured by the count of RNAV SIDs and STARs.)

2.2.2 Improve the segregation of arrivals and departures in terminal area and enroute airspace

As discussed in Section 2.1.2.2, in some portions of the airspace, arrival and departure routes cross, converge, or are within close proximity of each other. This requires controllers to manage the traffic to ensure that adequate separation between aircraft is maintained. RNAV procedures can be designed with capabilities such as speed control and altitude restrictions that maintain segregation of aircraft while reducing the complexity of controller and pilot workload. One objective of the Proposed Action is to implement procedures that would achieve better segregation of arrivals and departures within the airspace. This objective can be measured with the following criterion:

- Segregate Study Airport traffic (measured by the count of RNAV SIDs and/or STARs that can be used independently to/from Study Airports.)

2.2.3 Improve flexibility in transitioning traffic between enroute and terminal area airspace and between terminal area airspace and the runways

As discussed in Section 2.1.2.3, the limited number of entry and exit points constrain the efficiency of the air traffic routes in the terminal and enroute transitional airspace. This results in the need to merge multiple routes prior to arrival to and departure from terminal airspace. One objective of the Proposed Action is to minimize the need for merging by increasing the number of entry and exit points and procedures dedicated to specific Study Airports.

This objective can be measured with the following criteria:

- Where possible, increase the number of entry and exit points compared with the No Action Alternative (measured by number of entry and exit points.)
- Where possible, increase the number of enroute and runway transitions compared with the No Action Alternative (measured by count of enroute and runway transitions for all SID and STAR procedures.)

2.3 Criteria Application

The Proposed Action is evaluated to determine how well it meets the purpose and need based on the measurable criteria and objectives described above. The evaluation of alternatives will include the No Action Alternative, under which the existing (2011) air traffic procedures serving the Study Airports would remain unchanged except for planned procedure modifications that were approved for implementation. The criteria are intended to aid in comparing the Proposed Action with the No Action Alternative.

2.4 Description of the Proposed Action

The Proposed Action considered in this EA would implement optimized RNAV SID and STAR procedures in the Northern California Metroplex. This would improve the predictability and segregation of routes, as well as increase flexibility in the management of air traffic. The Proposed Action is described in detail in Chapter 3, *Alternatives*.

Implementation of the Proposed Action would not result in an increase in the number of aircraft operations at the Study Airports. Furthermore, the Proposed Action does not involve physical construction of any facilities such as additional runways or taxiways, and does not require permitting or other approvals or actions on a state or local level. Therefore, the implementation of the proposed changes to procedures in the Northern California Metroplex would not require any physical alterations to environmental resources identified in FAA Order 1050.1E, Chg.1.

2.5 Required Federal Actions to Implement Proposed Action

Implementation of the Proposed Action requires the FAA Publication of new or revised STARs and SIDs.

2.6 Agency and Tribal Coordination

On December 4, 2012, the FAA distributed an early notification letter to 129 federal, state, regional, and local officials as well as to eight tribes. As required under 40 C.F.R. 1501.2(d)(2) and 1501.7, the FAA sent the early notification letter to provide notice of the initiation of the EA; to request background information related to the EA study area; and to gain an understanding of issues, concern, policies, and/or regulations that may affect the environmental analysis. The FAA sent the early notification letter to serve the following purposes:

1. To advise agencies and tribes of the initiation of the EA study
2. To request background information regarding the study area established for the EA
3. To provide an opportunity to advise the FAA of any issues, concerns, policies or regulations regarding the environmental analysis that will be undertaken in the EA

Appendix A, *Agency and Public Coordination and List of Receiving Parties*, includes a copy of the early coordination letter (and attachments) as well as a list of the receiving agencies and tribes.