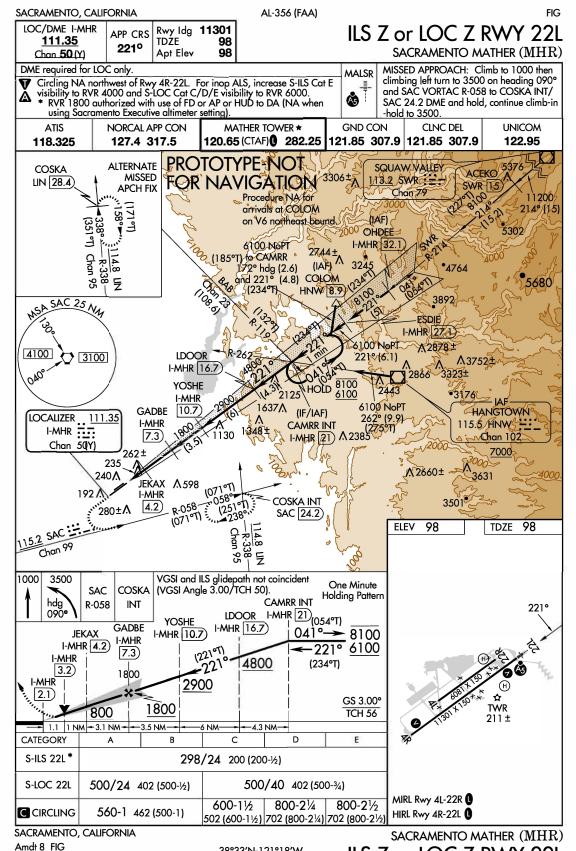
Flight Procedures Cover Page	Task Action: FLIGHT CHECK	Task Type: IAP	Estimated Chart Date: 12/29/2022	APWS Task ID: 5139FF6327F448369CADF2251713F405	APWS Project ID: 2E7179F6F75844AA878016CB45A7041B
Procedure: LS Z OR LOC Z RWY 22L AMDT 8		Enroute: NO	Specialist: Prassada, Parnell		Agreement Number:
Airport ID: KMHR		•	Airport City: SACRAMENTO		State: CA
Facility ID:	Facility Type:	Flight Inspection New FC Slot	Remark Type:		
Procedure Comments: ACTIVE DATA USED.	•	•			QUALITY.
CONTACT: ERIC SUSKI, AJV, A431 M	MANAGER, (405) 954-7331.				20 Ch _{ECK} P
Digitally signed by					
ERIC N SUSKI					QUALITY.
Oct 28, 2022					38
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					70.

						FIPC	BASIC	FOI	RM								
PROCEDURE:					A	AIRPORT	NAME:				AIRPOI	RT ID:	SPECIAL CONTROL NO:				
ILS OR LOC Z RV	VY 22L .	AMDT 8				SACRAMENTO MATHER KM		KMHR SP-		SP-	SP-11-035-22						
FAC ID: MHR			CITY: SAC	CRAMENTO						!	ST: CA		ORI	IG CH	ART DATE:	02/23/20	23
DFL TYPE:	THIRD	PARTY:	EST. TIME ON SITE: REIMB. NUMBER: PTS TASK ID:				D:	•									
PROC/A		YES	0.4						5139FF	F6327F	74483690	CADF2251	L713F4	105			
						PREF	LIGHT	NO	ΓES								
REVIEWER: gar	y j veer											DATE:	01/20)/2023			
COMMENTS:												CHECK	ONE:				
												X FLT	CK R	EQ	☐ NFCR	RE.	JECT
																YES	NO
												CPV CO	MPLE	ETE?		X	
					P	ROCE	DURE I	RES	ULTS	5							
INSPECTION DA	TE:	CREV	v #:	N #:	IN	NSTRUME	ENT PROCE	DURE	STATUS	S:		ARIN	C COI	DING:			
01/20/2023		VN36	52	N84	2	X SAT	☐ SAT W	//CHAI	NGES	U	UNSAT	☐ SA	AΤ	\square SA	AT/GOLD	□ U	NSAT
FLIGHT INSPEC	TOR SI	GNATURE	Ξ:		P1	PRINTED NAME: NOTAM INITIATED?						ΓED?					
gary j veer @ 01/20	0/2023 1	8:07			V	EER, GAF	RY JOHN								☐ YE	$\mathbf{S} \mathbf{X}$	NO
FLIGHT INSPECTOR REMARKS: New amendment for SIAP name change, Missed Approach climb to altitude, DR distances, and mandatory altitude for holding pattern revised from 11,000 to 8100. No electronic data required. SACRAMENTO MATHER, SACRAMENTO, CA, ILS Z OR LOC Z RWY 22L, AMDT 8, SAT.																	
				IN-	FL]	IGHT	OBSTA	CLE	REP	POR	\mathbf{T}_{-}						
OBSTRUCTION I	D#: C	COORDIN	ATES OR LO	OCATION:	GNS	SS ALTITU	UDE (MSL):	BAR	OMETR	RIC AI	LTITUD	E (MSL):	HE	IGHT A	ABOVE GR	OUND L	EVEL:



1:750,000

SW-2 10/18/22 COMPILER: JUN REVIEWER: DBL CHKR: EFF: FIG

ILS Z or LOC Z RWY 22L

SACRAMENTO, CALIFORNIA Amdt 7A 26MAR20

500/24 402 (500-1/2)

560-1 462 (500-1)

S-LOC 22L

C CIRCLING

ರ

SACRAMENTO MATHER (MHR) ILS or LOC RWY 22L

MIRL Rwy 4L-22R 🗓

HIRL Rwy 4R-22L

11 AUG 2022

\$

14 JUL 2022

SW-2,

600-11/2

500/40 402 (500-3/4)

800-21/4

502 (600-1½)|702 (800-2¼)|702 (800-2½)

800-21/2

& AIRCRAI SACRAMENTO, CALIFORNIA Amdt 7A 26MAR20

SACRAMENTO MATHER (MHR) ILS RWY 22L (SA CAT I & II)

to 11 AUG 2022

14 JUL 2022

SW-2,

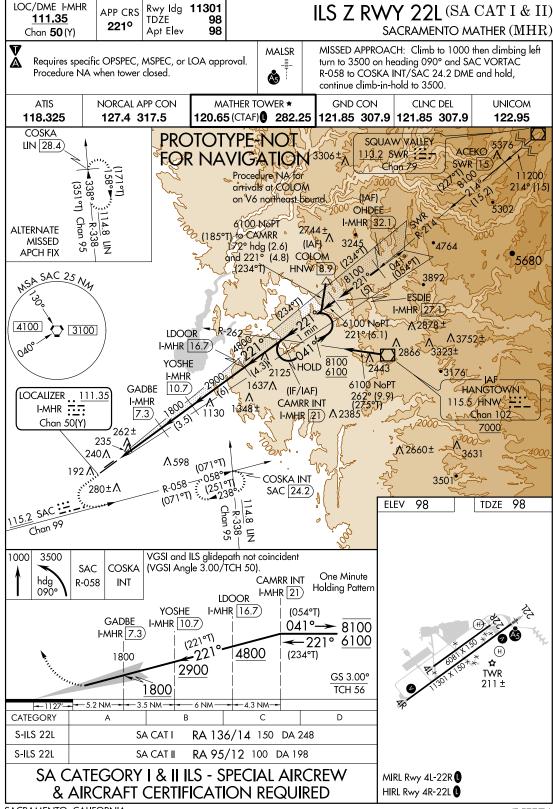
AL-356 (FAA)

FIG



750,000

SW-2 09/07/22 COMPILER: JUN REVIEWER: DBL CHKR: EFF: FIG

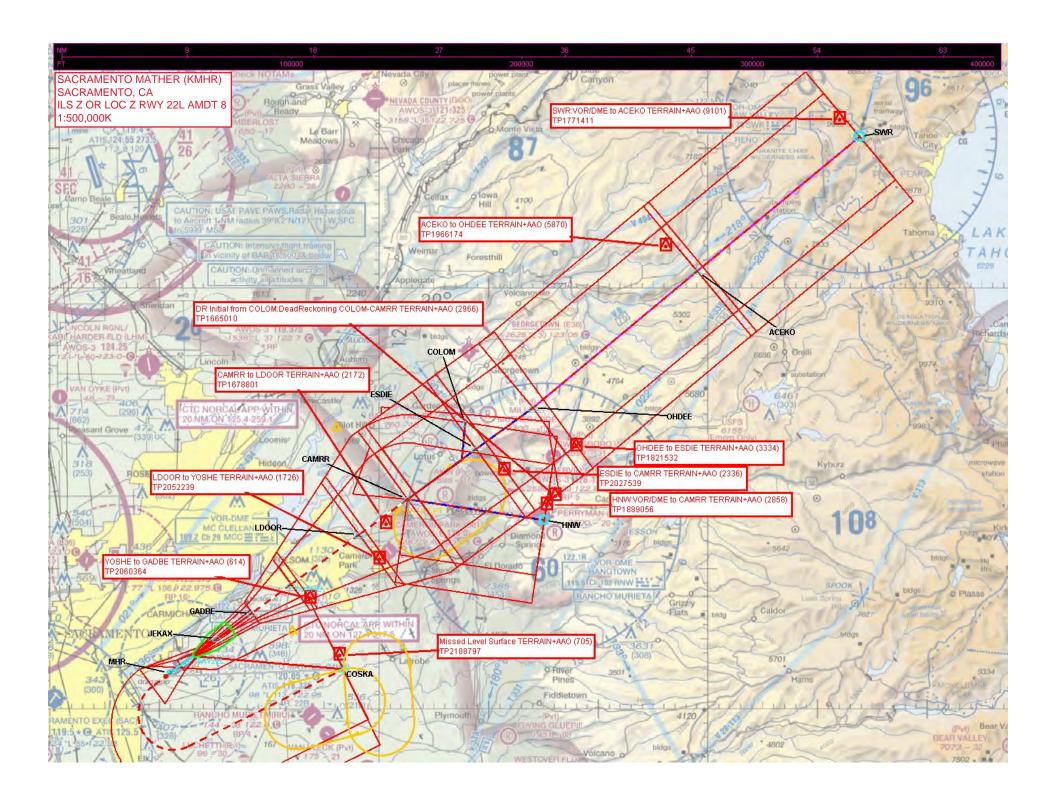


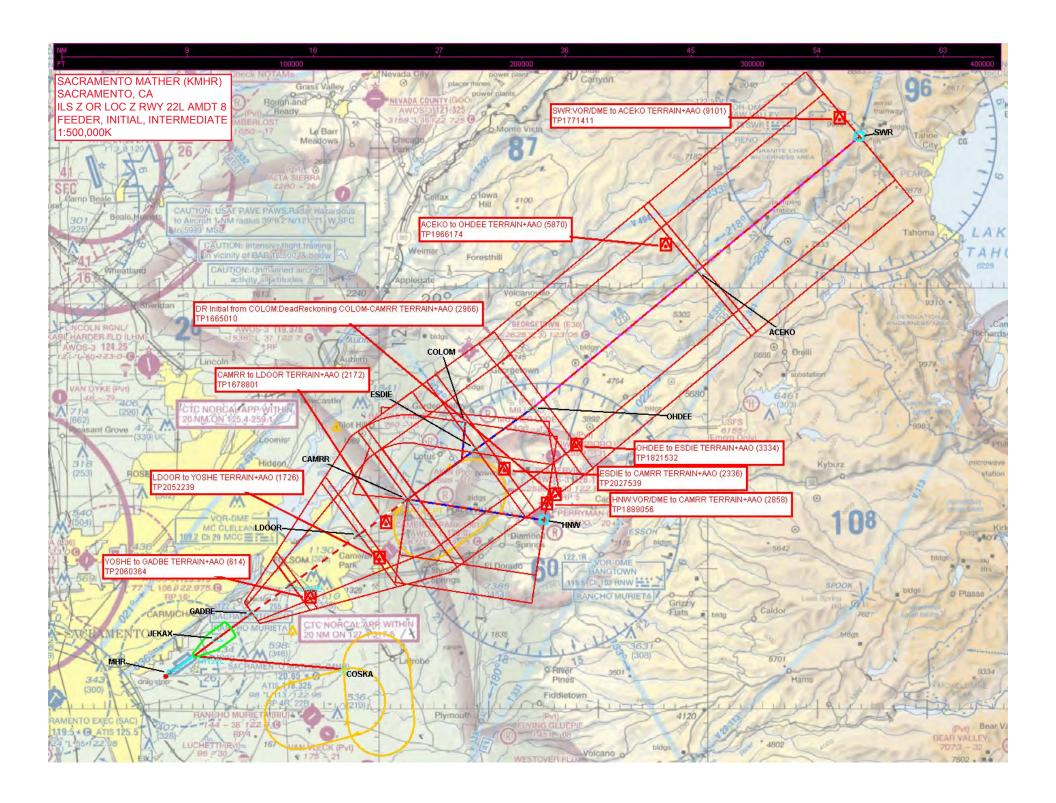
SACRAMENTO, CALIFORNIA

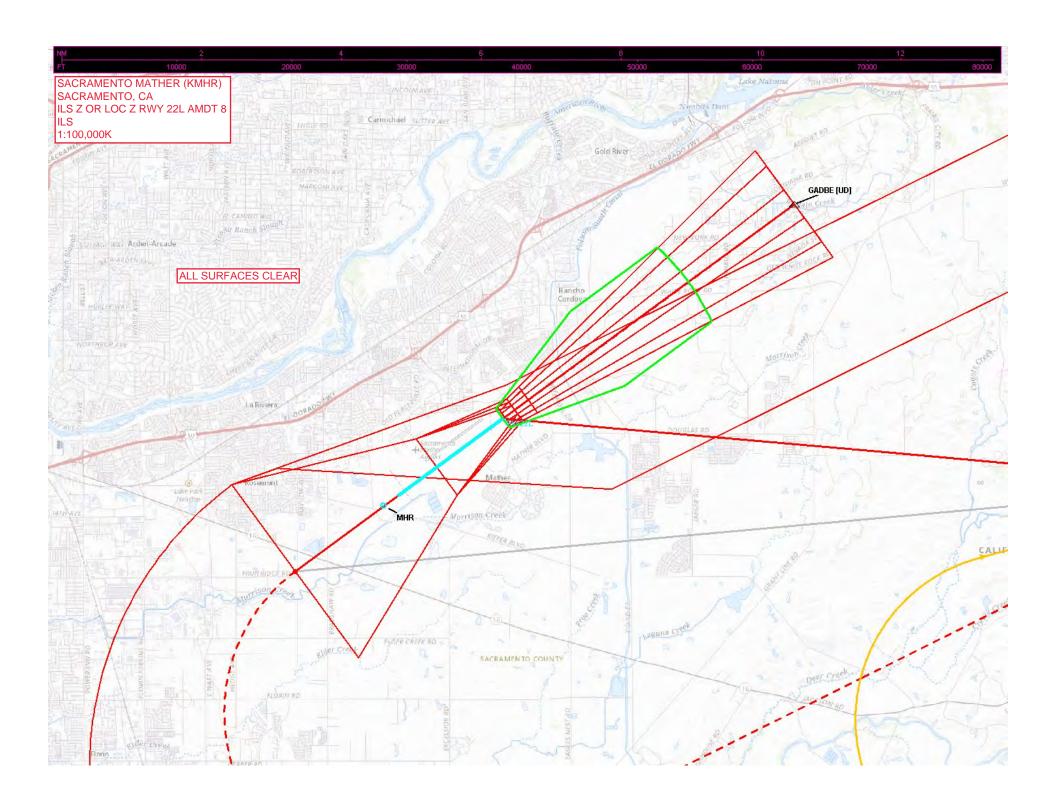
SACRAMENTO, CALIFORNIA

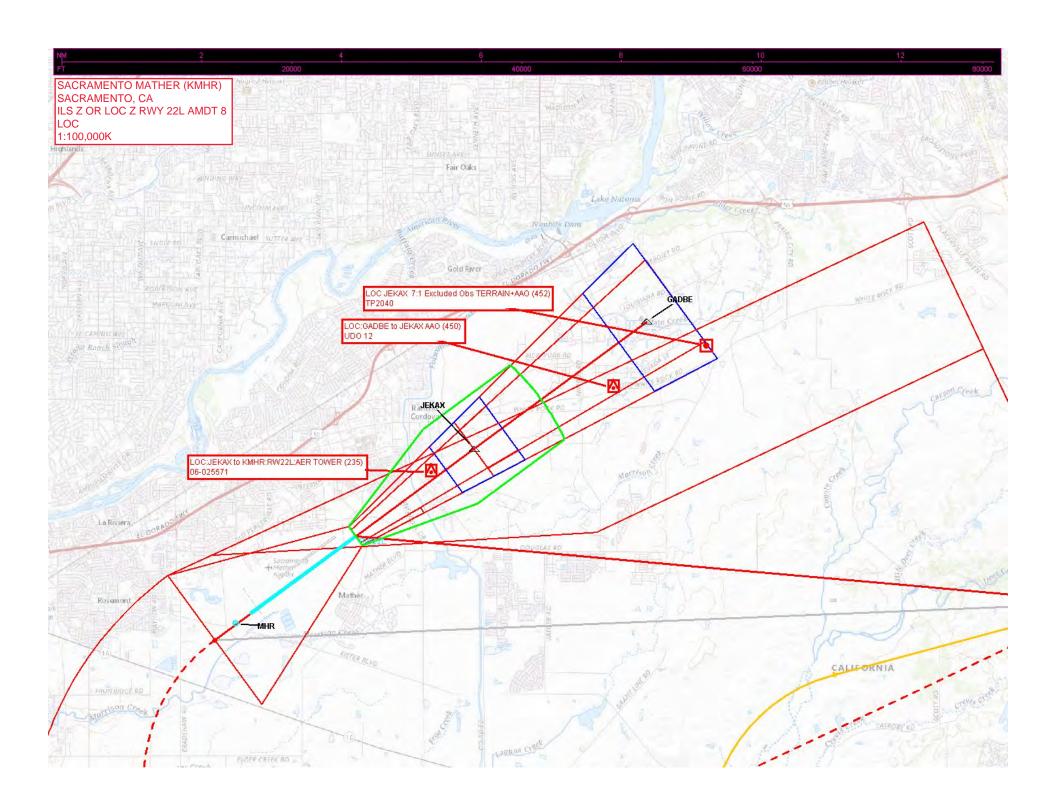
Amdt 8 FIG

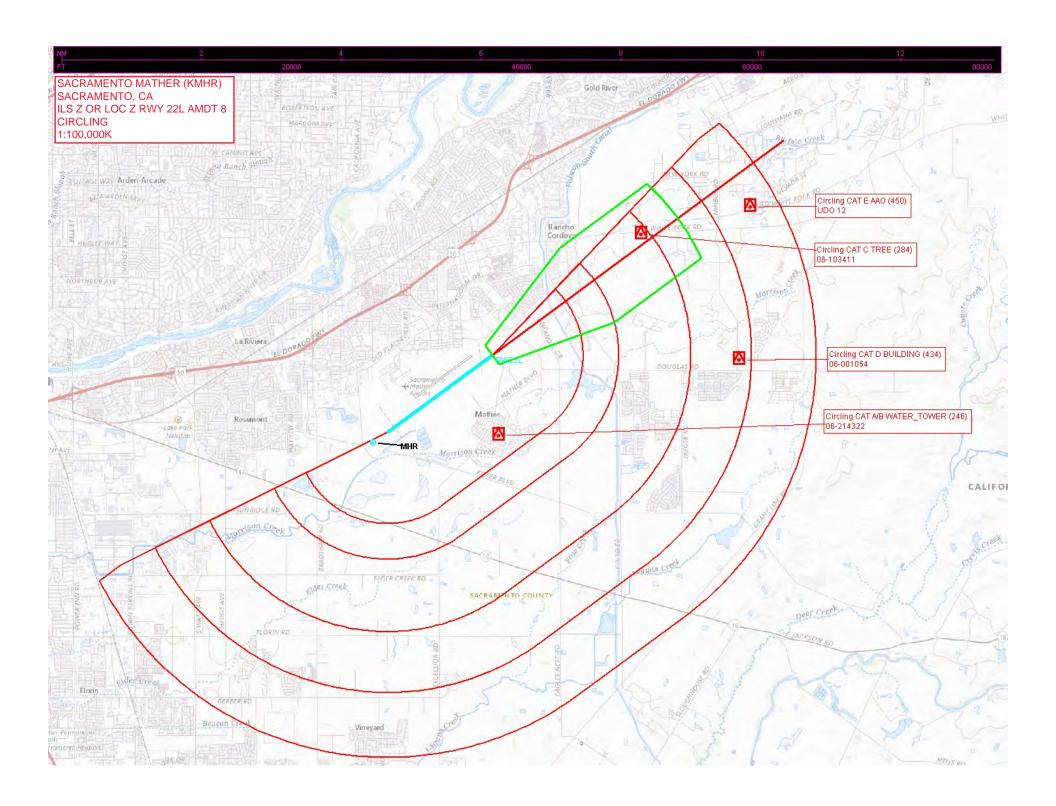
SACRAMENTO MATHER (MHR)

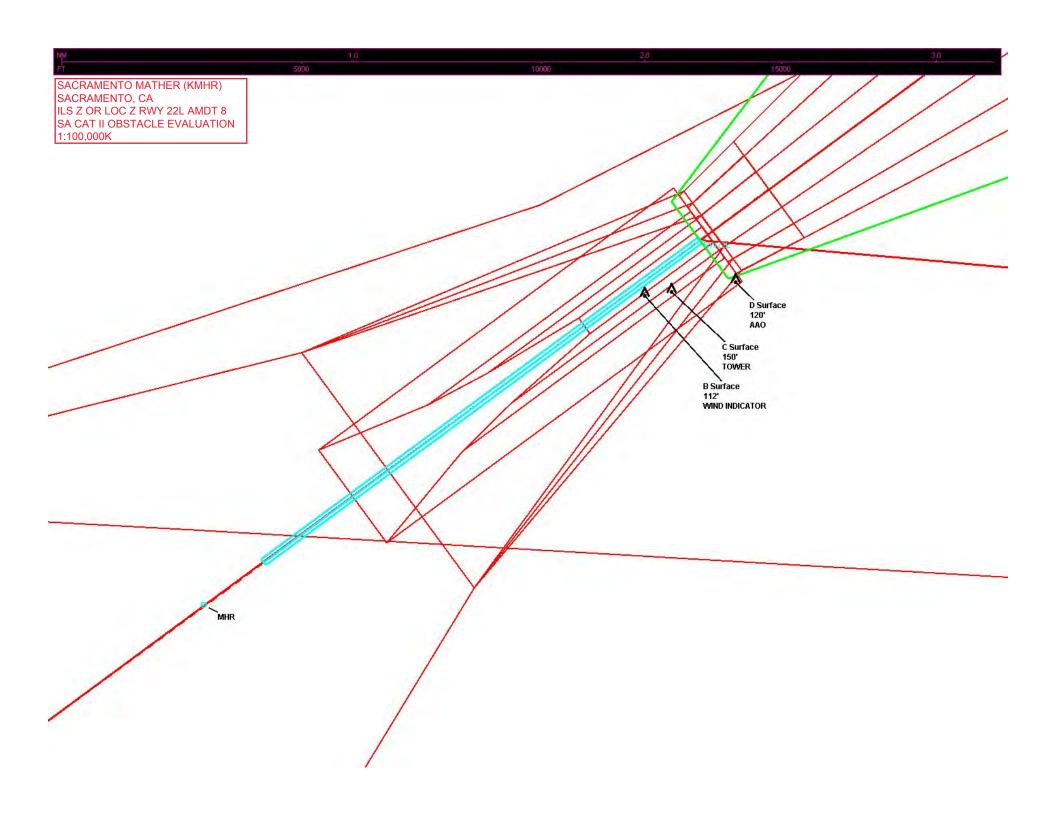












CAT II/III Formula 10-5-1. Surface A, B, C, D Surface Height Where X ≤ 3000 and Y: CAT II/III Formula 10-5-2. Surface B, C, and D Surface Height Where X > 3000 and Y: CAT II/III Formula 10-5-3. Surface A1 Surface Height

OBS_X = Distance (feet) from threshold along runway centerline

OBSy = Perpendicular distance (feet) from runway centerline

AIRPORTELEY = Airport Elevation

ELEV_{ABEAM-OBS} = MSL elevation of runway centerline abeam obstacle (if OBS_X ≤ 3000)

ELEV₃₀₀₀ = MSL elevation of runway centerline 3000 feet from threshold (if OBS_X > 3000)

OBS_X	1609.5836	
OBS _Y	FT 250.9436	Calandada
AIRPORTELEV	98.3	Calculate
RWY ELEV ABEAM OBSTACLE	FT 90	
Surface (OCS)	B Surface(104.0094)	Clear

CAT II/III Formula 10-5-1. Surface A, B, C, D Surface Height Where X ≤ 3000 and Y: CAT II/III Formula 10-5-2. Surface B, C, and D Surface Height Where X > 3000 and Y: CAT II/III Formula 10-5-3. Surface A1 Surface Height

OBSx = Distance (feet) from threshold along runway centerline

OBSy = Perpendicular distance (feet) from runway centerline

AIRPORTELEY = Airport Elevation

ELEV_{ABEANLOBS} = MSL elevation of runway centerline abeam obstacle (if OBSx≤3000)

ELEV₃₀₀₀ = MSL elevation of runway centerline 3000 feet from threshold (if OBS_X > 3000)

OBS _X	1126.5118	
OBSy	FT 506.7480	Caladas
AIRPORTELEV	98.3	Calculate
RWY ELEV ABEAM OBSTACLE	FT 90	
Surface (OCS)	C Surface(163.6809)	Clear

CAT II/III Formula 10-5-1. Surface A, B, C, D Surface Height Where X ≤ 3000 and Y: CAT II/III Formula 10-5-2. Surface B, C, and D Surface Height Where X > 3000 and Y: CAT II/III Formula 10-5-3. Surface A1 Surface Height

OBS_X = Distance (feet) from threshold along runway centerline

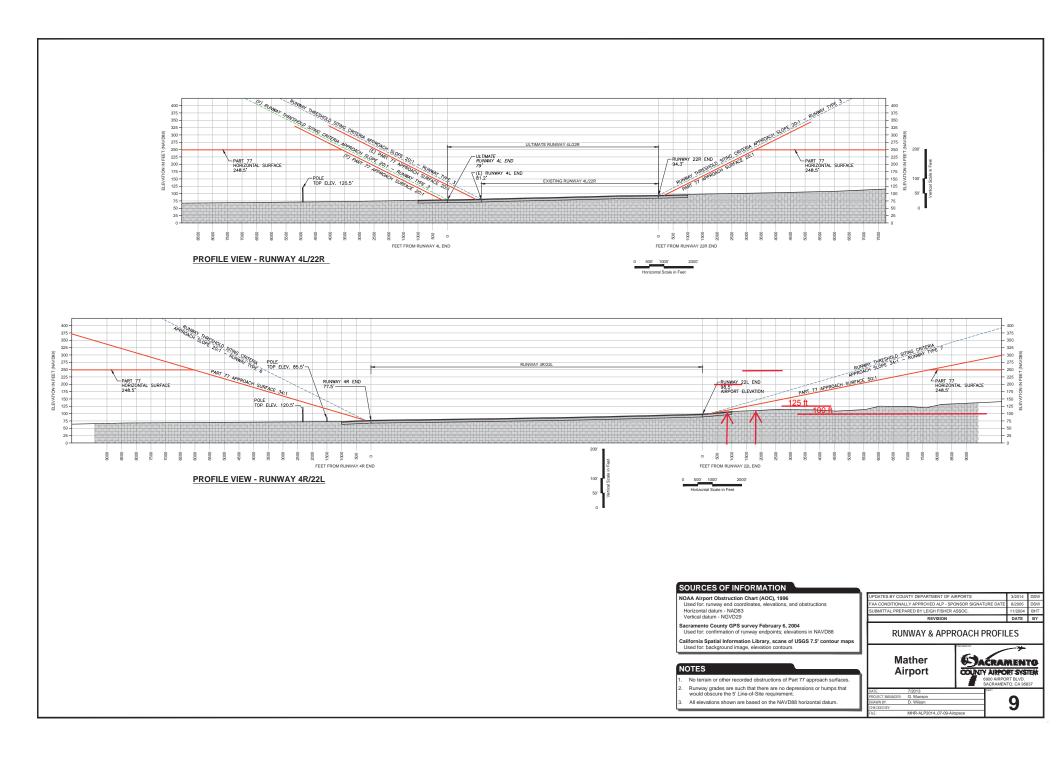
OBSy = Perpendicular distance (feet) from runway centerline

AIRPORTELEY = Airport Elevation

ELEV_{ABEAM-OBS} = MSL elevation of runway centerline abeam obstacle (if OBS_X ≤ 3000)

ELEV₃₀₀₀ = MSL elevation of runway centerline 3000 feet from threshold (if OBS_X > 3000)

OBS_X	-70.8808	
OBS _Y	1138.6640	Caladiaka
AIRPORTELEV	98,3	Calculate
RWY ELEV ABEAM DBSTACLE	FT 98.3	
Surface (OCS)	D Surface(242.1664)	Clear



	Formula 3-2-2. DA Point Dista	nce from LTP (feet)
	DA = Decision Altit LTPelev = LTP eleva TCH = Published TC GPA = glidepath an	tion CH
DA	FT 248	
LTPelev	FT 90	Calmilata
TCH	FT 56	= Calculate
GPA	9 3	
d _{LTP}	1,946.28	Clear

Note: Formula 3-2-2 is only intended for Visibility and Radio Altimeter purposes.

	Formula 3-2-1. Calcul	ating RA
	terrain _{elev} = terrain elevation DA = Decision Altitude	on FAC at DA point
errain _{elev}	FT 108	
DA	FT 248	Calculate
RA	140.00	Clear

	Formula 3-2-2. DA Point Dista	nce from LTP (feet)
	DA = Decision Altit LTPelev = LTP eleva TCH = Published T GPA = glidepath an	ation CH
DA	FT 198	
LTPelev	98	Calmidata
TCH	FT 56	Calculate
GPA	9 3	
d _{LTP}	839.57	Clear

Note: Formula 3-2-2 is only intended for Visibility and Radio Altimeter purposes.

	terrain _{elev} = terrain elevation DA = Decision Altitude	n on FAC at DA point
terrain _{elev}	FT 108	Coloniata
DA	FT 198	Calculate
RA	90.00	Clear

U.S. DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION CATEGORICAL EXCLUSION DECLARATION

Sacramento Mather Airport Sacramento, California

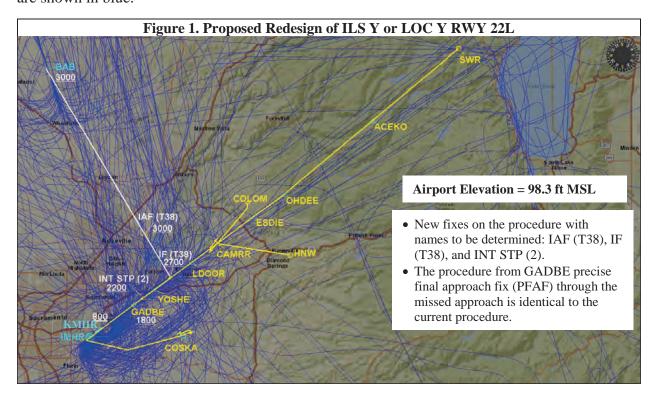
ILS Z or LOC Z RWY 22L (Amend)
ILS Y or LOC Y RWY 22L (Amend)
(OBSTACLE) Departure Procedure (New)

Description of Proposed Action:

The Federal Aviation Administration (FAA) is proposing to rename one approach procedure, create one approach procedure, and implement a new radar vector departure procedure at Sacramento Mather Airport (KMHR), Sacramento, California.

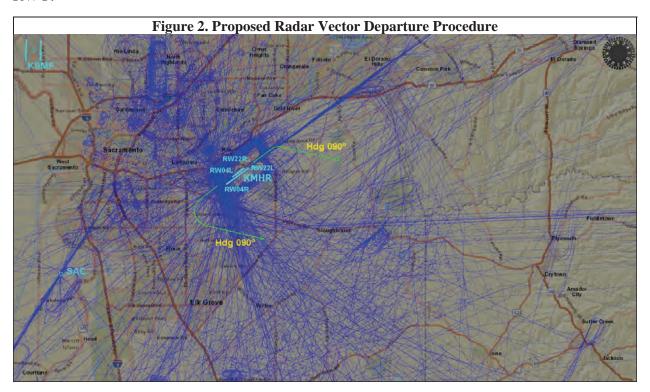
The current Instrument Landing System (ILS) or Localizer (LOC) Runway (RWY) 22L would be renamed ILS Z or LOC Z RWY 22L, with no other changes to the procedure. The ILS Y or LOC Y RWY 22L would add a new feeder segment to the current ILS or LOC RWY 22L procedure, as well as add a new initial approach fix (IAF), intermediate fix (IF), and intermediate leg (INT) step down fix (SDF).

Figure 1 depicts the ILS Y or LOC Y RWY 22L approach procedure (yellow) with the proposed new feeder (white) from the Beale (BAB) tactical air navigation (TACAN). At or above (AOA) altitude restrictions are shown in feet (ft) mean sea level (MSL) and T-38 flight tracks for 2021 are shown in blue.



The BAB feeder would be used for T-38 aircraft diverting from Beale Air Force Base (AFB) and requires an AOA 3,000-foot altitude to help keep the T-38s out of icing conditions. T-38 arrival tracks are not anticipated to change significantly when using the new feeder route.

Figure 2 depicts the proposed new radar vector departure procedure (green) for all RWYs and a sample of November 2020 departure flight tracks (blue). Departures would use a standard climb gradient of 200 ft per nautical mile (NM) to 500 ft MSL, then turn east to a 90-degree heading (magnetic), or a heading assigned by air traffic control (ATC) within 2 NM from end of the RWY.



The tracks for the aircraft on the new procedure are not predictable given the varying aircraft performance capabilities and vectoring depending on tactical ATC needs. The current textual departure procedure directs aircraft towards Sacramento (SAC) very high frequency omnidirectional range and tactical air navigation (VORTAC) before vectoring by air traffic control (ATC) and requires that each departure be issued VOR radial/distance-measuring equipment (DME) fixes. Since the increased United Parcel Service (UPS) operations rely on DataCom—which cannot send radial/DME fixes—the new procedure will help with the increased UPS operations and help eliminate hearback/readback errors. Additionally, the new departure would provide ATC with an efficient means to de-conflict departures with the Sacramento International Airport (KSMF) traffic. The departure tracks on the new procedure are not anticipated to change significantly.

The number of airport operations is not expected to change as a result of the Proposed Action. KMHR data from 2019 reveals approximately 37,000 annual aircraft operations, out of which

approximately 1,050 were T-38 arrivals. Noise screening analysis was conducted for T-38 arrivals using the initial screening module of the Terminal Area Routing Generation, Evaluation, and Traffic Simulation (TARGETS) Aviation Environmental Design Tool (AEDT) environmental plug-in. The noise screening analysis passed the Traffic Test (TRAF Test), indicating that no further noise analysis was needed to implement the Proposed Action. ²

The Proposed Action does not involve land acquisition, physical disturbance, or construction activities. The following environmental impact categories were considered either not to be present or to have negligible or non-existent effects from the Proposed Action and, in accordance with Council on Environmental Quality (CEQ) regulations, did not warrant further analysis:

- Biological resources (including fish, wildlife, and plants)
- Climate
- Coastal resources
- Farmlands
- Hazardous materials, solid waste, and pollution prevention
- Land use
- Natural resources and energy supply
- Socioeconomic impacts and children's environmental health and safety risks
- Water resources (including wetlands, floodplains, surface waters, groundwater, and wild and scenic rivers)
- Visual effects

The NEPAssist Tool (https://nepassisttool.epa.gov/nepassist/nepamap.aspx) was used to determine the potential to impact the following environmental categories:

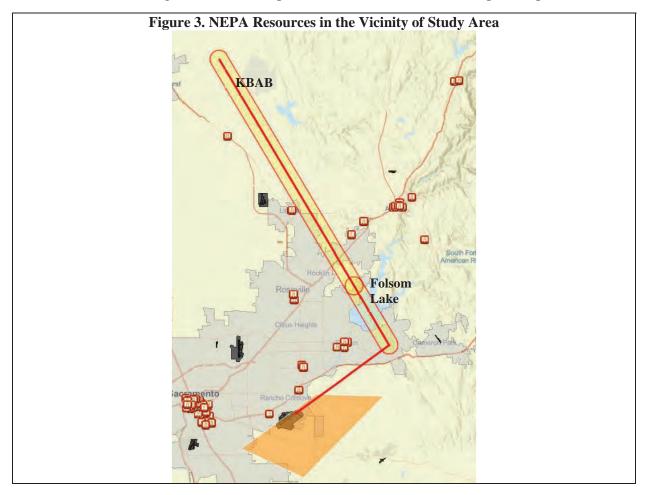
- Air quality
- Department of Transportation Act, Section 4(f)
- National Historic Preservation, Section 106
- Noise and noise-compatible land use
- Environmental justice (a subcategory under the general heading of socioeconomic impacts)

The airport is within Ozone 1-hour, Ozone 8-hour, Particulate Matter (PM) 2.5 microns, PM 10 microns nonattainment and maintenance areas. The following **Figure 3** shows urbanized areas (grey), historical properties (brown icons), and the Folsom Lake State Recreation Area in the

^{1.} FAA's Instrument Flight Procedures (IFP), Operations, and Airspace Analytics (IOAA) Tool (https://ioaa-faa.mitre.org/).

^{2.} The TRAF Test is used to determine if the number of operations on a particular procedure or route is high enough to generate noise levels that warrant further screening. The TRAF Test considers aircraft type, percent of operations during evening and night times in California, and night time elsewhere. Evening time is defined as the period from 7:00 p.m. to 10:00 p.m. local, and night time is the period from 10:00 p.m. to 7:00 a.m., local time. Using these inputs, the test determines the maximum number of operations by pistons, turboprops, small jets (Lear Jets or similar), large jets (Boeing 737 or similar), heavy jets (Boeing 777 or similar), or any combination thereof that would warrant further noise screening.

vicinity of the study area (orange). The study area includes a one-mile buffer for the BAB feeder route and the area (orange) around the airport that accounts for the new departure procedure.



Since there would be no noise impacts or significant change in flight tracks, adverse environmental impacts to the NEPA resources identified are not anticipated as a result of the Proposed Action.

The airport master plan available at https://sacramento.aero/scas/about/planning_design and the FAA's Instrument Flight Procedures (IFP) Information Gateway (https://www.faa.gov/air_traffic/flight_info/aeronav/procedures/) were reviewed for planned air traffic projects to assess cumulative impacts of the Proposed Action. It was determined that the Proposed Action, when considered with other past, present, and reasonably foreseeable projects, would not exceed the thresholds of significance for the resource categories analyzed in this environmental review. Therefore, no cumulative impacts are anticipated.

In accordance with FAA Order 1050.1F, Paragraph 5-2, Extraordinary Circumstances, the FAA has reviewed the proposed amendments for factors and circumstances in which a normally categorically excluded action may have a significant environmental impact requiring further analysis. The FAA has determined that no extraordinary circumstances exist that warrant additional environmental review.

Declaration of Exclusion:

The FAA has reviewed the above referenced Proposed Action and it has been determined, by the undersigned, to be categorically excluded from further environmental documentation according to FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures*. The implementation of this action will not result in any extraordinary circumstances in accordance with FAA Order 1050.1F.

Basis for this Determination:

This review was conducted in accordance with policies and procedures in Department of Transportation Order 5610.1C, *Procedures for Considering Environmental Impacts*, and FAA Order 1050.1F.

The applicable categorical exclusion is:

5-6.5.i. - Establishment of new or revised air traffic control procedures conducted at 3,000 feet or more above ground level (AGL); procedures conducted below 3,000 feet AGL that do not cause traffic to be routinely routed over noise sensitive areas; modifications to currently approved procedures conducted below 3,000 feet AGL that do not significantly increase noise over noise sensitive areas; and increases in minimum altitudes and landing minima.

Recommended by:

Air Traffic Manager Review/Concurrence

Signature: _	FRANCINE Digitally signed by FRANCINE K MALABO Date: 2022.03.15 11:19:09 -07'00'	Date:	
Name:	Francine K. Malabo		
	Air Traffic Manager		
	Northern California TRACON		

Concurrence by:

Western Service Area Environmental Specialist

Signature:	VIKAS UBEROI	Digitally signed by VIKAS UBEROI Date: 2022.03.16 10:12:45 -07'00'	Date:
Name:	Vikas Ubero		Operations Support Group
		vice Center, AJV-W25	operations support Group

Approval by:

Western Service Area Director or Designee Approval

Signature:	BYRON G Y CHEW	Digitally signed by BYRON G Y CHEW Date: 2022.03.17 15:12:12 -07'00'	Date:	
Name:	B. G. Chew			
	0 1	<i>U</i> , 1	ons Support Group	
	Western Servi	ce Center AIV-V	12.	