NAME: MAKRS STATE: CA COUNTRY: US ICAO REGION CODE: K2

LATITUDE/LONGITUDE: 354057.95N/1202038.99W **TYPE:** WP. DME

AIRSPACE DOCKET: FIX TYPE OF ACTION: MODIFY

FIX MAKE-UP FACILITIES:

FAC NAME **IDENT TYPE CLASS MAG TRUE** DME DIST FROM FAC MRA MAA **BRG BRG** NM FEET **AVENAL** AVE VOR/DME 260.95 276.95 18.00 18.00 11000 45000

HOLDING: HOLDING TYPE OF ACTION: NO CHANGE

REMARKS:

FIX TO BE CHARTED AS STANDALONE ON SERFR (RNAV) AND WWAVS (RNAV) STARS.

FIX USE:

USE TYPE USE TITLE STATE FAC PAT AIRPORT IDENT CITY ATC COORDINATION FIX (US) CA (US) **EN ROUTE KSFO** SAN FRANCISCO STAR SERFR (RNAV) **STAR** WWAVS (RNAV) SAN FRANCISCO STAR SILCN (RNAV) SAN JOSE

REQUIRED CHARTING: STAR, EN ROUTE LOW, EN ROUTE HIGH, CONTROLLER LOW, CONTROLLER HIGH

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 4 DATE OF REVISION: 03/21/2024

REASON FOR REVISION:

1. FIX MAKE-UP FACILITIES: FAC 1 CLASS CHANGED FROM H TO VH.

2. REQUIRED CHARTING: CHANGED CHARTING TYPE FROM "CONTROLLER" TO "CONTROLLER HIGH AND CONTROLLER LOW."

INITIATED BY: DATE: ORGANIZATION: NAME:

OFFICE OF PRIMARY RESPONSIBILITY: AJV-A431 **NAME:** PARNELL PRASSADA

APPROVED BY: DATE: 03/21/2024 OFFICE: AJV-A431 NAME: ERIC N SUSKI

SIGNATURE: Digitally signed by

ERIC N SUSKI Nov 03, 2023

> ONALITY 14 CHECKED

NAME: NRRLI STATE: CA **COUNTRY: US ICAO REGION CODE: K2**

LATITUDE/LONGITUDE: 362944.16N/1214157.84W TYPE: WP

AIRSPACE DOCKET: FIX TYPE OF ACTION: MODIFY

HOLDING TYPE OF ACTION: MODIFY HOLDING:

PATTERNS:

LEG LENGTH HOLDING ALTITUDES TEMPLATES **IDENT TYPF** RAD/CRS/BRG **CRS** TURN PAT DIR INBOUND (LORR) TIME DME MIN MAX MIN MAX WP 13000 SE 133.71 20000 313.71 10 18

CONTROLLING OBSTRUCTIONS:

PAT AIRSPEED OBSTRUCTION **COORDINATES ELEVATION ACCURACY CODE**

361839.00N/1213406.00W AAO 5256 4B

PRECIPITOUS TERRAIN ADDITIONS: PAT SPEED ADDITION

230 380

REASON FOR NONSTANDARD HOLDING:

PAT 1 ATC REQ

HOLDING RESTRICTIONS:

HOLDING LIMITED TO ESTABLISHED PATTERN

REMARKS:

PRECIPITOUS TERRAIN EVALUATION COMPLETED

FIX USE:

PAT AIRPORT IDENT STATE **USE TYPE USE TITLE** FAC CITY CA (US) CA (US) SERFR (RNAV) SAN FRANCISCO STAR **KSFO STAR** WWAVS (RNAV) **KSFO** SAN FRANCISCO

REQUIRED CHARTING: STAR

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 2 DATE OF REVISION: 03/21/2024

REASON FOR REVISION:

HOLDING: UPDATED HOLDING OBSTACLE AND ASSOCIATED INFORMATION. OBSTACLE MSL ELEVATION CHANGED FROM 5246 FT TO

5256 FT.

ORGANIZATION: **INITIATED BY:** DATE: NAME:

OFFICE OF PRIMARY RESPONSIBILITY: AJV-A431 **NAME: PARNELL PRASSADA**

APPROVED BY: **DATE:** 03/21/2024 OFFICE: AJV-A431 NAME: ERIC N SUSKI

> Digitally signed by SIGNATURE:

> > **ERIC N SUSKI**

Nov 03, 2023

NAME: PLLAR STATE: CA COUNTRY: US ICAO REGION CODE: K2

LATITUDE/LONGITUDE: 373015.79N/1224303.60W **TYPE**: WP

AIRSPACE DOCKET: FIX TYPE OF ACTION: ESTABLISH

HOLDING: HOLDING TYPE OF ACTION:

FIX USE:

USE TYPE USE TITLE FAC PAT AIRPORT IDENT CITY STATE
STAR WWAVS (RNAV) KSFO SAN FRANCISCO CA (US)

REQUIRED CHARTING: STAR

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG DATE OF REVISION: 03/21/2024

INITIATED BY: DATE: ORGANIZATION: NAME:

OFFICE OF PRIMARY RESPONSIBILITY: AJV-A431 **NAME:** PARNELL PRASSADA

APPROVED BY: DATE: 03/21/2024 OFFICE: AJV-A431 NAME: ERIC N SUSKI

SIGNATURE: Digitally signed by

ERIC N SUSKI Nov 03, 2023

> OVALITY 14 CHECKED

NAME: SERFR STATE: CA COUNTRY: US ICAO REGION CODE: K2

LATITUDE/LONGITUDE: 360405.90N/1212152.79W **TYPE**: WP

AIRSPACE DOCKET: FIX TYPE OF ACTION: MODIFY

HOLDING: HOLDING TYPE OF ACTION: MODIFY

PATTERNS:

LEG LENGTH HOLDING ALTITUDES TEMPLATES **IDENT TYPF** RAD/CRS/BRG **CRS** TURN PAT DIR INBOUND (LORR) TIME DME MIN MAX MIN MAX WP 13000 SE 133.71 15000 313.71 10 16

CONTROLLING OBSTRUCTIONS:

PAT AIRSPEED OBSTRUCTION COORDINATES ELEVATION ACCURACY CODE

230 AAO 360845.00N/1212515.00W 6043 4B

PRECIPITOUS TERRAIN ADDITIONS: PAT SPEED ADDITION

1 230 380

REASON FOR NONSTANDARD HOLDING:

PAT 1 ATC REQ

HOLDING RESTRICTIONS:

HOLDING LIMITED TO ESTABLISHED PATTERN

REMARKS:

PRECIPITOUS TERRAIN EVALUATION COMPLETED

FIX USE:

PAT AIRPORT IDENT STATE **USE TYPE USE TITLE** FAC CITY CA (US) CA (US) SERFR (RNAV) SAN FRANCISCO STAR **KSFO** STAR WWAVS (RNAV) **KSFO** SAN FRANCISCO 1

REQUIRED CHARTING: STAR, EN ROUTE HIGH, CONTROLLER HIGH

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 3 DATE OF REVISION: 03/21/2024

REASON FOR REVISION:

HOLDING: UPDATED HOLDING OBSTACLE AND ASSOCIATED INFORMATION. OBSTACLE MSL ELEVATION CHANGED FROM 6044 FT TO

6043 FT.

INITIATED BY: DATE: ORGANIZATION: NAME:

OFFICE OF PRIMARY RESPONSIBILITY: AJV-A431 NAME: PARNELL PRASSADA

APPROVED BY: DATE: 03/21/2024 OFFICE: AJV-A431 NAME: ERIC N SUSKI

SIGNATURE: Digitally signed by

ERIC N SUSKI Nov 03, 2023

> 14 CHECKED

WALIY,

NAME: STOKD STATE: CA COUNTRY: US ICAO REGION CODE: K2

LATITUDE/LONGITUDE: 352900.57N/1204905.68W **TYPE:** WP

AIRSPACE DOCKET: FIX TYPE OF ACTION: NO CHANGE

HOLDING: HOLDING TYPE OF ACTION: NO CHANGE

REMARKS:

FIX TO BE CHARTED AS STANDALONE ON SERFR (RNAV) AND WWAVS (RNAV) STARS.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	DARRK (RNAV)			KLAX	LOS ANGELES	CA (US)
DP	KYLOW (RNAV)			KLAX	LOS ANGELES	CA (US)
DP	SUMMR (RNAV)			KLAX	LOS ANGELES	CA (US)
DP	TRTON (RNAV)			KLAX	LOS ANGELES	CA (US)
DP	CTRUS (RNAV)			KSMO	SANTA MONICA	CA (US)
STAR	SERFR (RNAV)			KSFO	SAN FRANCISCO	CA (US)
STAR	WWAVS (RNAV)			KSFO	SAN FRANCISCO	CA (US)

REQUIRED CHARTING: DP, STAR, EN ROUTE HIGH, CONTROLLER HIGH

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 5 DATE OF REVISION: 07/11/2024

REASON FOR REVISION:

REQUIRED CHARTING: CHANGED CHARTING TYPE FROM "CONTROLLER" TO "CONTROLLER HIGH."

01/10/24: THIS IS AN UPDATED COPY OF THE FORM DEVELOPED ON 03/21/24.

1. FIX USE: ADDED KYLOW (RNAV) SID AT KLAX.

INITIATED BY: DATE: ORGANIZATION: NAME:

OFFICE OF PRIMARY RESPONSIBILITY: AJV-A431 **NAME:** PARNELL PRASSADA

APPROVED BY:DATE: 03/21/2024OFFICE: AJV-A431NAME: ERIC N SUSKI

SIGNATURE: Digitally signed by ERIC N SUSKI

Jan 11, 2024

ONALITY 16 CHECKER

NAME: THEEZ STATE: CA COUNTRY: US ICAO REGION CODE: K2

LATITUDE/LONGITUDE: 373006.69N/1222527.11W **TYPE**: WP

AIRSPACE DOCKET: FIX TYPE OF ACTION: MODIFY

HOLDING: HOLDING TYPE OF ACTION: NO CHANGE

FIX USE:

USE TYPE USE TITLE FAC PAT AIRPORT IDENT CITY STATE
STAR WWAVS (RNAV) KSFO SAN FRANCISCO CA (US)

REQUIRED CHARTING: STAR

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 2 DATE OF REVISION: 03/21/2024

REASON FOR REVISION:

LATITUDE/LONGITUDE: CHANGED FROM 373012.49N/1222529.11W TO 373006.69N/1222527.11W; FIX MOVED 0.1 NM SOUTH.

INITIATED BY: DATE: ORGANIZATION: NAME:

OFFICE OF PRIMARY RESPONSIBILITY: AJV-A431 NAME: PARNELL PRASSADA

APPROVED BY: DATE: 03/21/2024 OFFICE: AJV-A431 NAME: ERIC N SUSKI

SIGNATURE: Digitally signed by

ERIC N SUSKI Nov 03, 2023

> ONALITY 14 CHECKED

NAME: WPOUT STATE: CA COUNTRY: US ICAO REGION CODE: K2

LATITUDE/LONGITUDE: 370710.15N/1221733.87W **TYPE**: WP

AIRSPACE DOCKET: FIX TYPE OF ACTION: MODIFY

HOLDING: HOLDING TYPE OF ACTION: MODIFY

PATTERNS:

LEG LENGTH HOLDING ALTITUDES TEMPLATES **IDENT TYPF** RAD/CRS/BRG **CRS** TURN PAT DIR INBOUND (LORR) TIME DME MAX MIN MAX MIN WP 11000 SE 125.87 15000 305.87 10 16

CONTROLLING OBSTRUCTIONS:

PAT AIRSPEED OBSTRUCTION COORDINATES ELEVATION ACCURACY CODE

230 AAO 370600.00N/1220824.00W 2851 4B

PRECIPITOUS TERRAIN ADDITIONS: PAT SPEED ADDITION

1 230 150

REASON FOR NONSTANDARD HOLDING:

PAT 1 ATC REQ

HOLDING RESTRICTIONS:

HOLDING LIMITED TO ESTABLISHED PATTERN

REMARKS:

PRECIPITOUS TERRAIN EVALUATION COMPLETED

FIX USE:

 USE TYPE
 USE TITLE
 FAC
 PAT
 AIRPORT IDENT
 CITY
 STATE

 STAR
 WWAVS (RNAV)
 1
 KSFO
 SAN FRANCISCO
 CA (US)

REQUIRED CHARTING: STAR

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 2 DATE OF REVISION: 03/21/2024

REASON FOR REVISION:

HOLDING: UPDATED HOLDING OBSTACLE AND ASSOCIATED INFORMATION. OBSTACLE MSL ELEVATION CHANGED FROM 2845 FT TO

2851 FT.

INITIATED BY: DATE: ORGANIZATION: NAME:

OFFICE OF PRIMARY RESPONSIBILITY: AJV-A431 NAME: PARNELL PRASSADA

APPROVED BY: DATE: 03/21/2024 OFFICE: AJV-A431 NAME: ERIC N SUSKI

SIGNATURE:

Digitally signed by ERIC N SUSKI Nov 03, 2023

> 14 CHECKED

OVALIZE

NAME: WWAVS STATE: CA **COUNTRY: US ICAO REGION CODE: K2**

LATITUDE/LONGITUDE: 364429.51N/1215339.24W TYPE: WP

AIRSPACE DOCKET: FIX TYPE OF ACTION: MODIFY

HOLDING TYPE OF ACTION: MODIFY HOLDING:

PATTERNS:

LEG LENGTH HOLDING ALTITUDES TEMPLATES **IDENT TYPF** RAD/CRS/BRG **CRS** TURN PAT DIR INBOUND (LORR) TIME DME MIN MAX MIN MAX WP 13000 SE 133.49 19000 313.49 10 18

CONTROLLING OBSTRUCTIONS:

PAT AIRSPEED OBSTRUCTION **COORDINATES ELEVATION ACCURACY CODE**

362312.00N/1214718.00W AAO 4603 4B

PRECIPITOUS TERRAIN ADDITIONS: PAT SPEED ADDITION

230 300

REASON FOR NONSTANDARD HOLDING:

PAT 1 ATC REQ

HOLDING RESTRICTIONS:

HOLDING LIMITED TO ESTABLISHED PATTERN

REMARKS:

PRECIPITOUS TERRAIN EVALUATION COMPLETED

FIX USE:

PAT AIRPORT IDENT **STATE USE TYPE USE TITLE** FAC CITY CA (US) CA (US) SERFR (RNAV) SAN FRANCISCO STAR **KSFO STAR** WWAVS (RNAV) **KSFO** SAN FRANCISCO

REQUIRED CHARTING: STAR

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 2 DATE OF REVISION: 03/21/2024

REASON FOR REVISION:

HOLDING: UPDATED HOLDING OBSTACLE AND ASSOCIATED INFORMATION. OBSTACLE MSL ELEVATION CHANGED FROM 4617 FT TO

4603 FT.

ORGANIZATION: **INITIATED BY:** DATE: NAME:

OFFICE OF PRIMARY RESPONSIBILITY: AJV-A431 **NAME: PARNELL PRASSADA**

APPROVED BY: **DATE:** 03/21/2024 OFFICE: AJV-A431 NAME: ERIC N SUSKI

> Digitally signed by SIGNATURE: **ERIC N SUSKI**

Nov 03, 2023

QUALITY