

FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
STANDARD TERMINAL ARRIVAL (STAR)

Bearings, headings, courses, tracks and radials are magnetic. Elevations and altitudes are in feet, MSL. Altitudes are minimum altitudes unless otherwise indicated.
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Arrival Name	Number	STAR Computer Code	Superseded Number	Dated	Effective Date
PIRAT (RNAV)	THREE	PIRAT.PIRAT3	TWO	04/25/2019	11 Jul 2024

TRANSITION ROUTES:

Transition Name	Transition Computer Codes	From FIX/NAVAID	To FIX/NAVAID	Course	Distance	MEA	MOCA	MAA	Crossing Altitudes / Fixes
ALCOA	ALCOA.PIRAT3	ALCOA	ALCOA						AT/ABOVE FL240
			SUPER	093.63	101.54	FL200	2200		AT/ABOVE FL210
			PASIF	087.11	33.21	10000	2200		AT/BELOW 14000
			PIRAT	059.46	13.49	5000	2200		AT 10000
CINNY	CINNY.PIRAT3	CINNY	CINNY						AT/ABOVE FL270
			HUNTS	037.82	73.03	FL200	2200		AT/ABOVE FL210
			PASIF	038.55	26.17	10000	2200		AT/BELOW 14000
			PIRAT	059.46	13.49	5000	2200		AT 10000
HUNTS	HUNTS.PIRAT3	HUNTS	HUNTS						AT/ABOVE FL210
			PASIF	038.55	26.17	10000	2200		AT/BELOW 14000
			PIRAT	059.46	13.49	5000	2200		AT 10000
PAINT	PAINT.PIRAT3	PAINT	PAINT						
			SUPER	102.95	90.60	FL200	2200		AT/ABOVE FL210
			PASIF	087.11	33.21	10000	2200		AT/BELOW 14000
			PIRAT	059.46	13.49	5000	2200		AT 10000
PASIF	PASIF.PIRAT3	PASIF	PASIF						AT/BELOW 14000
			PIRAT	059.46	13.49	5000	2200		AT 10000
WUSES	WUSES.PIRAT3	WUSES	WUSES						
			SUPER	142.89	23.00	FL200	2200		AT/ABOVE FL210
			PASIF	087.11	33.21	10000	2200		AT/BELOW 14000
			PIRAT	059.46	13.49	5000	2200		AT 10000

ARRIVAL ROUTE DESCRIPTION:

LANDING KOAK/KSFO: FROM PIRAT ON TRACK 059.64/10.06 TO BRINY, THEN ON TRACK 059.77/18.92 TO CROSS ARGGG AT 8000 AND AT 230 KIAS, THEN ON TRACK 059.77. EXPECT ASSIGNED INSTRUMENT APPROACH OR RADAR VECTORS TO FINAL APPROACH COURSE.

PBN REQUIREMENT NOTES:

RNAV 1 - GPS

EQUIPMENT REQUIREMENT NOTES:

RADAR REQUIRED



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PIRAT (RNAV)	THREE	PIRAT.PIRAT3	TWO	04/25/2019	11 Jul 2024

PROCEDURAL DATA NOTES:

NOTE: JET AND TURBOPROP AIRCRAFT ONLY.

NOTE: LANDING SFO EXPECT RUNWAY 28L/R UNLESS OTHERWISE ASSIGNED BY ATC.

NOTE: LANDING OAK EXPECT RUNWAY 28L/R OR RWY 30 UNLESS OTHERWISE ASSIGNED BY ATC.

NOTE: GPS REQUIRED.

FIXES AND/OR HOLDING PATTERNS:

CHART HOLDING AT HUNTS: HOLD SW, LT, 037.82 INBOUND, 11 NM LEGS.

CHART HOLDING AT PASIF: HOLD SW, LT, 059.46 INBOUND, 10 NM LEGS.

CHART HOLDING AT PIRAT: HOLD SW, LT, 059.46 INBOUND, 10 NM LEGS.

CHART HOLDING AT SUPER: HOLD W, LT, 093.63 INBOUND, 11 NM LEGS.

CHART: SIDBY.

CHART: CYMBL.

CHART: FRNNY.

COMMUNICATIONS:

CHART: OAK ARTCC.

CHART: NORCAL APCH CONTROL.

CHART: SFO TOWER

CHART: SFO GND CONTROL.

CHART: OAK TOWER.

CHART: OAK GND CONTROL.

AIRPORTS SERVED:

<u>AIRPORT ID</u>	<u>CITY</u>	<u>STATE</u>
KSFO	SAN FRANCISCO	CA
KOAK	OAKLAND	CA

LOST COMMUNICATIONS PREFERENCES:**REMARKS:**

OBSTACLES OVER OCEAN ASSUMED TO BE 295 FT SHIP HEIGHTS.

ADDITIONAL FLIGHT DATA:

DME/DME ASSESSMENT: UNSAT.

MAG VAR: KSFO 14E/2015.

CHART AT ARGGG TERMINUS: LDG KOAK AND KSFO.

CHART: KSFO AIRPORT RUNWAYS.

CHART: KOAK AIRPORT RUNWAYS.



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PIRAT (RNAV)	THREE	PIRAT.PIRAT3	TWO	04/25/2019	11 Jul 2024

Digitally signed by

FLIGHT INSPECTED BY:**ERIC N SUSKI****ORGANIZATION:****DATE:**

THOMAS E MOLOKIE

May 21, 2024

FPO

05/20/2024

Flight Inspected Signature: _____

DEVELOPED BY:*Digitally signed by*
FRANK JACKSON

AJV-A431

10/04/2023

Developed By Signature: _____

Oct 27, 2023

APPROVED BY:*Digitally signed by*

AJV-A430

Approved By Signature: _____

JOHNNIE BAKER

ERIC N SUSKI

Nov 01, 2023

CHANGES:

1. ALL PREVIOUS MOCA VALUES AT 1200 CHANGED TO 2200.
2. MEA AT PASIF CHANGED FROM 15000 TO 10000.
3. CROSSING ALTITUDE AT PASIF CHANGED FROM "AT/BELOW FL195" TO "AT/BELOW 14000".
4. CROSSING ALTITUDE AT PIRAT CHANGED FROM "AT/BELOW 15000" TO "AT 10000".
5. UPDATED ARRIVAL ROUTE DESCRIPTION DELETED RESTRICTION AT BRINY AT OR BELOW 12000 AND AT 250 KIAS AND ADDED EXPECT ASSIGNED INSTRUMENT APPROACH.
6. UPDATED NOTE FROM "RNAV 1" TO "RNAV 1 - GPS".
7. CHANGED NOTE FROM "TURBOJET AND TURBOPROP AIRCRAFT ONLY" TO "JET AND TURBOPROP AIRCRAFT ONLY".
8. ADDED ADDITIONAL FLIGHT DATA DME/DME ASSESSMENT: UNSAT.
9. REMOVED DO NOT CHART MOCAS FROM ADDITIONAL FLIGHT DATA.
10. REMOVED RECOMMENDED NAVAID EHF VORTAC.

REASONS:

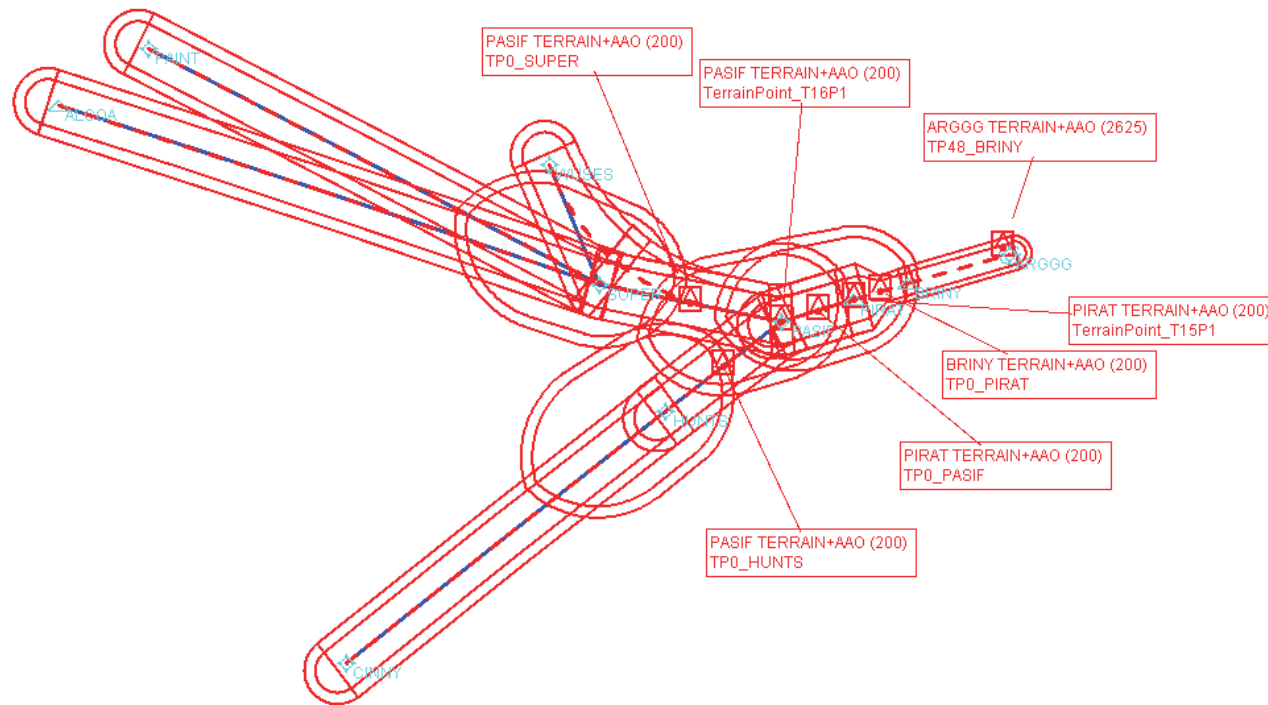
- 1,2. IAW 8260.3, PARA 2-2-7 D (3).
3. PROVIDE SEPARATION FROM DEPARTURE TRAFFIC.
4. ATC REQUEST TO PROVIDE SEPARATION FROM DEPARTURE TRAFFIC.
5. IAW 8260.19, PARA 4-5-12 C.
6. IAW 8260.19, PARA 4-5-3 A.
7. IAW 8260.19, PARA 4-5-12 D (4).
8. IAW 8260.19, PARA 4-5-12 J (3).
9. IAW 8260.19, PARA 4-5-12 B (8).
10. NOT REQUIRED IAW 8260.19, PARA 1-1-5 A (6).

QUALITY
14
CHECKED

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Graphic Depiction 1					



FEDERAL AVIATION ADMINISTRATION
FLIGHT STANDARDS SERVICE
STAR (DATA RECORD)

Arrival Name PIRAT (RNAV)		Number THREE		STAR Computer Code PIRAT.PIRAT3			Superseded Number TWO		Dated 04/25/2019	Effective Date 11 Jul 2024
FIX/NAVAID	LAT/LONG	C	FO/FB	LEG TYPE	TC	DIST (NM)	ALTITUDE	SPEED	REMARKS	
En Route Transition										
ALCOA	374959.71N / 1255004.29W	Y		IF			AT/ABOVE FL240		ALCOA.PIRAT3	
SUPER	371809.59N / 1234846.87W	Y	FB	TF	107.63	101.54	AT/ABOVE FL210	AT 280K		
PASIF	371138.00N / 1230800.00W	Y	FB	TF	101.11	33.21	AT/BELOW 14000	AT 260K		
PIRAT	371527.54N / 1225148.07W	Y	FB	TF	073.46	13.49	AT 10000			
En Route Transition										
CINNY	361054.00N / 1244536.00W	Y		IF			AT/ABOVE FL270		CINNY.PIRAT3	
HUNTS	365545.00N / 1233400.00W	Y	FB	TF	051.82	73.03	AT/ABOVE FL210	AT 280K		
PASIF	371138.00N / 1230800.00W	Y	FB	TF	052.55	26.17	AT/BELOW 14000	AT 260K		
PIRAT	371527.54N / 1225148.07W	Y	FB	TF	073.46	13.49	AT 10000			
En Route Transition										
HUNTS	365545.00N / 1233400.00W	Y		IF			AT/ABOVE FL210	AT 280K	HUNTS.PIRAT3	
PASIF	371138.00N / 1230800.00W	Y	FB	TF	052.55	26.17	AT/BELOW 14000	AT 260K		
PIRAT	371527.54N / 1225148.07W	Y	FB	TF	073.46	13.49	AT 10000			
En Route Transition										
PAINT	380000.00N / 1253000.00W	Y		IF					PAINT.PIRAT3	
SUPER	371809.59N / 1234846.87W	Y	FB	TF	116.95	90.60	AT/ABOVE FL210	AT 280K		
PASIF	371138.00N / 1230800.00W	Y	FB	TF	101.11	33.21	AT/BELOW 14000	AT 260K		
PIRAT	371527.54N / 1225148.07W	Y	FB	TF	073.46	13.49	AT 10000			
En Route Transition										
PASIF	371138.00N / 1230800.00W	Y		IF			AT/BELOW 14000	AT 260K	PASIF.PIRAT3	
PIRAT	371527.54N / 1225148.07W	Y	FB	TF	073.46	13.49	AT 10000			
En Route Transition										
WUSES	373920.87N / 1240005.88W	Y		IF					WUSES.PIRAT3	
SUPER	371809.59N / 1234846.87W	Y	FB	TF	156.89	23.00	AT/ABOVE FL210	AT 280K		

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FIX/NAVAID	LAT/LONG	C	FO/FB	LEG TYPE	TC	DIST (NM)	ALTITUDE	SPEED	REMARKS
PASIF	371138.00N / 1230800.00W	Y	FB	TF	101.11	33.21	AT/BELOW 14000	AT 260K	
PIRAT	371527.54N / 1225148.07W	Y	FB	TF	073.46	13.49	AT 10000		
Common Route									
PIRAT	371527.54N / 1225148.07W	Y		IF			AT 10000		PIRAT.PIRAT3
BRINY	371817.14N / 1223941.96W	Y	FB	TF	073.64	10.06			
ARGGG	372332.72N / 1221653.87W	Y	FO	TF	073.77	18.92	AT 8000	AT 230K	
KSFO, KOAK				FM	073.77				