

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Arrival Name PIRAT (RNAV)	Number THREE	STAR Computer Code PIRAT.PIRAT3	Superseded Number TWO	Dated 04/25/2019	Effective Date
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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	
			PASIF	038.55	26.17	10000	2200	AT/BELOW 14000	
PAINT	PAINT.PIRAT3	PAINT	PAINT						AT/ABOVE FL210
			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	
			PASIF	059.46	13.49	5000	2200	AT 10000	
WUSES	WUSES.PIRAT3	WUSES	WUSES						AT/ABOVE FL210
			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	

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:

AIRPORT ID	CITY	STATE
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	

FLIGHT INSPECTED BY: *Digitally signed 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** **ORGANIZATION:** **DATE:**
 FRANK JACKSON Oct 27, 2023 AJV-A431 10/04/2023 Developed By Signature: _____

APPROVED BY: *Digitally signed by* **ERIC N SUSKI** **ORGANIZATION:** **DATE:**
 JOHNNIE BAKER Nov 01, 2023 AJV-A430 10/04/2023 Approved By Signature: _____

- 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).

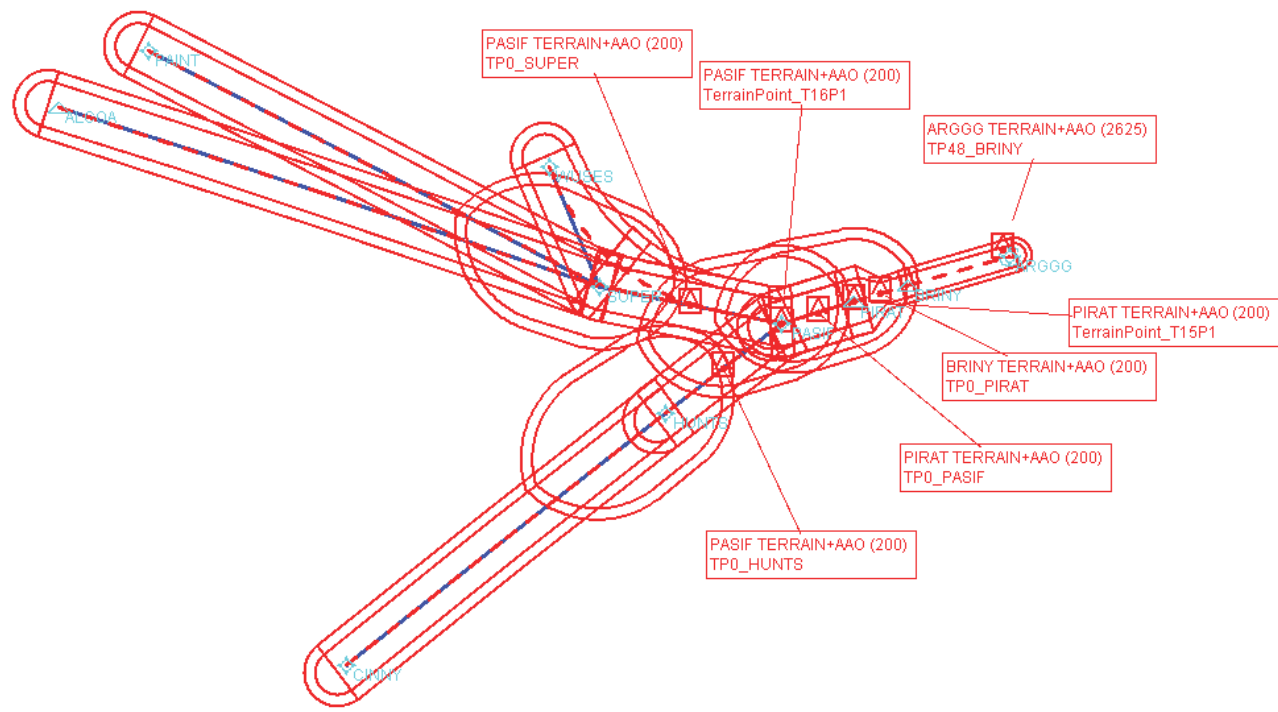


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Graphic Depiction 1



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		
<u>FIX/NAVAID</u>	<u>LAT/LONG</u>	<u>C</u>	<u>FO/FB</u>	<u>LEG TYPE</u>	<u>TC</u>	<u>DIST (NM)</u>	<u>ALTITUDE</u>	<u>SPEED</u>	<u>REMARKS</u>
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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<u>FIX/NAVAID</u>	<u>LAT/LONG</u>	<u>C</u>	<u>FO/FB</u>	<u>LEG TYPE</u>	<u>TC</u>	<u>DIST (NM)</u>	<u>ALTITUDE</u>	<u>SPEED</u>	<u>REMARKS</u>
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				

