OAKLAND ARTCC

Oakland ATCT - Standard Operating Procedure
Version 1.5

List of Changes

VERSION	DATE	DESCRIPTION
1.0	25APR2019	Rewrite – Initial Release
1.1	20OCT2019	Removed VOX Channel due to AFV release
1.2	21MAY2020	Added SUNNE and QUAKE DPs
1.3	31DEC2020	TMC position, SFOE definition, revised flight data clearance procedures, revised ground control procedures, revised local control procedures, runway selection added to LC, added OAK Class C diagram
1.4	07FEB2022	Removed OAK TMC position, small altitude/DP changes. Added VFR arrival/departure transitions for north/south field.
1.5	16JUN2022	Clean up unnecessary verbiage, re-format various tables, add additional authorized headings, clarify VFR routing assignment, move noise abatement to appendix, add handoff diagrams, add equipment section and radar service notes

Section 1. General Information

1-1 Purpose

This Standard Operating Procedure (SOP) outlines the procedures to be used by controllers working Oakland ATCT positions on the VATSIM network, to ensure that traffic flows are handled in as efficient and timely a manner as possible. This SOP is for simulation purposes only and shall not be used for real world use or reference.

1-2 Distribution

This SOP is distributed to all members of the Oakland ARTCC on VATSIM.

1-3 Cancellation

All previous procedures are canceled.

1-4 Definitions

CFR – Call for Release
DP – Departure Procedure (SID)
TEC – Tower Enroute Clearance

1-5 Equipment

Oakland ATCT has a radar display (CTRD) and ability to process flight plans (FDIO)

1-6 Positions Table

The following position table details authorized positions for Oakland ATCT.

POSITION	CALLSIGN	RADIO CALLSIGN	FREQUENCY
Clearance Delivery	OAK_DEL	Oakland Clearance	121.100
Ground Control	OAK_GND	Oakland Ground	121.750
Local Control	OAK_TWR	Oakland Tower	127.200
D-ATIS	KOAK_ATIS		133.775

1-7 Runway Configurations

CONFIGURATION	DESCRIPTION
SFOW	SFO utilizing runways 01s and/or 28s, OAK utilizing runways 28s and 30
OAKE	SFO utilizing runways 28s, OAK utilizing runways 10s and 12
SFOE	SFO utilizing runways 19s and/or 10s, OAK utilizing runways 10s and 12

Section 2. Flight Data/Clearance Delivery

2-1 General Procedures

a. Issue departure clearance in accordance with current directives, Letters of Agreement, and this section. Ensure accuracy of pilot readback.
b. Issue TEC routes for aircraft with destinations within NCT (except RNO and satellites). If a pilot is unable to accept a TEC route, issue vectors direct destination and coordinate with NCT.
c. Initial headings specified in this SOP shall only be issued when a DP cannot be used or an applicable one does not exist (e.g. pilot is unable to accept DP, TEC route does not include DP)
    i. Initial headings shall be issued with the clearance
    PHRASEOLOGY-
    CLEARED TO (airport) AIRPORT, ON DEPARTURE FLY HEADING (heading), RADAR VECTORS (first fix/airway)…
d. Pre-Departure Clearances (PDC) are authorized for use with PDC capable aircraft in accordance with CPS-001.
e. When an aircraft requesting clearance requires route or traffic management coordination, advise the TMU/CIC so that they can complete the coordination prior to issuing the clearance.

2-2 IFR Departures

a. Standard DP/Route/Heading and Altitude Assignment
    i. SFOW (Runways 28L/28R/30)

<table>
<tr><th>DEST/ROUTE</th><th>AIRCRAFT</th><th>DP</th><th>DEP SECTOR</th><th>ALTITUDE</th></tr>
<tr><td>Northbound</td><td rowspan="3">J & DH8D</td><td rowspan="2">OAK#</td><td>Richmond</td><td>CVS x FL190 (J)
CVS x 10,000 (DH8D)</td></tr>
<tr><td>Oceanic</td><td rowspan="3">Sutro</td><td rowspan="3">CVS (CNDEL#)
CVS x 10,000 (Others)</td></tr>
<tr><td>Southbound</td><td>CNDEL#
SKYL#
COAST#</td></tr>
<tr><td>Via BSR, EUGEN, SHOEY, or SNS</td><td>P, T, J</td><td>NUEVO#</td></tr>
<tr><td>All other props</td><td>P, T</td><td>NIMI#</td><td>Richmond</td><td>3,000</td></tr>
</table>

    ii. OAKE (Runways 10L/10R/12)

<table>
<tr><th>DEST/ROUTE</th><th>AIRCRAFT</th><th>DP/HDG</th><th>DEP SECTOR</th><th>ALTITUDE</th></tr>
<tr><td>Northbound</td><td rowspan="2">J & DH8D</td><td rowspan="2">QUAKE#</td><td>Richmond</td><td rowspan="2">5,000</td></tr>
<tr><td>Southbound</td><td>Sutro</td></tr>
<tr><td>All</td><td>P, T</td><td>090°</td><td>Grove</td><td>3,000</td></tr>
</table>

iii. SFOE (Runways 10L/10R/12)

DEST/ROUTE	AIRCRAFT	DP/HDG	DEP SECTOR	ALTITUDE
Northbound	J & DH8D	OAK#	Richmond	3,000
Oceanic			Sutro	
Southbound		KATFH# SKYL#	Sutro	CVS x 3,000
All	P, T	090°	Richmond	3,000

b. Additional Non-DP Heading and Altitude Assignment

i. Instruct aircraft to expect assigned/cruise altitude 10 minutes after departure

ii. SFOW

DEST/ROUTE	RUNWAY	AIRCRAFT	HDG	DEP SECTOR	ALTITUDE
All	33	J & DH8D	270°	*Varies**	2,000
		P, T	315°	Richmond	3,000
Northbound	28 / 30	P, T	315°	Richmond	3,000
Southbound			RWY	Sutro	10,000
All		J & DH8D		*Varies**	

** Richmond for northbound departures, Sutro for oceanic/southbound departures*

iii. OAKE

DEST/ROUTE	RUNWAY	AIRCRAFT	HDG	DEP SECTOR	ALTITUDE
All	10 / 12	J & DH8D	270°	*Varies**	5,000

iv. SFOE

DEST/ROUTE	RUNWAY	AIRCRAFT	HDG	DEP SECTOR	ALTITUDE
All	10 / 12	J & DH8D	RWY	*Varies**	3,000

** Richmond for northbound departures, Sutro for oceanic/southbound departures*

2-3 VFR Procedures

a. Ensure VFR departures have their aircraft type, origin, and destination filled out in their flight plan.
b. Issue all VFR aircraft, including pattern work, a transponder code.
c. For VFR aircraft requesting flight following, issue departure instructions, interim altitude, and departure frequency in accordance with Section 4-6.
   EXAMPLE-
   "N172SP, on departure follow I-880, maintain VFR at or below 2,000, departure frequency 120.900, squawk 3201"
   NOTE-
   Aircraft not requesting flight following can also be assigned the Section 4-6 departures routes

d. Certain VFR aircraft may request a "Bay Tour". This is typically a clockwise or counterclockwise flight around the Bay Area stopping at airports such as OAK, HWD, SQL, PAO, or SFO. If requesting flight following, these aircraft shall be issued VFR departure instructions in accordance with 2-3 (c) based on their direction of flight.

2-4 Noise Abatement

a. Noise abatement procedures are not required to be applied. They are shown in Appendix B for those who choose to simulate them.

Section 3. Ground Control

3-1 Position Jurisdiction and Responsibilities

a. Coordinate and exchange all applicable information with Local Control (LC) in accordance with FAAO 7110.65, Chapter 3, and this SOP.
b. Jurisdiction of Taxiways
    i. Ground control has jurisdiction over all taxiways except for those between active runways.
c. Maintain positive control of all taxiways and runways, which are designated as movement areas; Provide advisories, and issue clearances and control instructions to aircraft.
d. Maintain awareness of arriving traffic and anticipate Local Control needs to allow for arriving aircraft to fully clear the runway(s):
    i. GC will yield or hold traffic for aircraft exiting the runway(s).
    ii. Avoid blocking runway exits and advise LC when ground traffic will hold short of runway exits.

3-2 Coordination

a. Intra-facility direct voice coordination may include, but not limited to; active runway crossings, helicopter operations, and/or any other operations on or near runways and taxiways used by LC and GC.
a. Ground Control must ensure all aircraft taxi "full length" to the assigned runway, unless otherwise coordinated.

3-3 Multiple Runway Crossings

a. OAK is approved to conduct multiple runway crossings in accordance with JO 7210.3 on RWY 28R/L at Taxiway Bravo, which is separated by less than 1000 feet between runway center lines.

Section 4. Local Control

4-1 General Duties and Responsibilities

a. LC is responsible for runway separation and control, sequence, and separation of IFR, SVFR, and Class C VFR aircraft in the Oakland ATCT delegated airspace shown in Attachment 3.
    i. LC may provide Class C radar service within their delegated airspace. This may involve radar identifying VFR aircraft (and advising them of radar contact) and making radar handoffs to NCT.
    ii. NCT shall make radar handoffs of IFR arrivals and VFR arrivals/overflights to LC. LC need not accept the handoff before NCT transfers communications.
b. LC has jurisdiction of all taxiways between active runways and is expected to comply with all local and national directives to ensure compliance with advising pilots to either hold short of or cross a runway surface.
c. LC must CFR for the following IFR departures:
    i. NIMI DP
    ii. RWY 33 Jet & DH8D departures
    iii. Prop & Turboprop departures during SFOE and OAKE
d. LC must ensure all IFR departures assigned a 315° heading, or the NIMI DP are established on the route prior to frequency change.
e. During SFOE and OAKE operations runway 12/10 are considered the same runway for jet departures.
f. The use of two and one half (2.5) NM separation between successive runway 30 arrivals is authorized, provided both aircraft are established on the final approach course and are within 10NM of runway 30.
g. Preferred pattern runways
    i. During West Plan, runway 28L is the preferred closed pattern runway. The pattern altitude for 28L is 600 feet. Pattern work may be conducted on runway 28R or 33 at an altitude of 1,000 feet.
        1. LC must restrict all aircraft in the runway 28L pattern north of runway 30 to ensure aircraft do not conflict with runway 30 arrivals and departures.
    ii. During southeast plan, runway 10L is the preferred closed pattern runway. The pattern altitude for 10L is 1,000 feet. Due to the proximity of 12 arrivals, pattern traffic for runway 10R should be minimized, however pattern altitude is 600 feet.

4-2 Runway Selection

a. When the wind is reported as less than 10kts, use the runway 30/28 configuration.
b. If the wind is reported as 10kts or greater, use the runway configuration most nearly aligned with the wind.
    i. When the winds require the use of 12/10 while SFO is advertising departures from 1L/R and/or 28L/R, the OAKE configuration is used.
    ii. When it is determined that the OAKE configuration shall be used, notify NCT and SFO ATCT of the configuration change.
c. When SFO ATCT is in SFOE configuration, OAK shall use the runway 12/10 configuration.

4-3 Coordination

a. Coordinate with GC for arriving/departing helicopter operations.
b. LC must coordinate when using any runway other than the designated active runway.
c. Notify NCT if unable to provide tower-applied visual separation between 30 and 28 arrivals.
d. Verbally coordinate with NCT for the use of runway 30 traffic pattern

4-4 Go-Around / Missed Approach

a. Local Control is responsible for separation of arriving and departing IFR/VFR aircraft.
b. When there is a go-around or missed approach, the controller must issue instructions to establish separation.
c. Coordinate missed approaches with Richmond in SFOW/SFOE and Grove in OAKE.
d. Issue the following missed approach instructions to all unplanned missed approaches and visual approach go-arounds:

RUNWAY	HEADING	ALTITUDE
30	RWY	2,000
28	315°	3,000
10 or 12 (SFOE)	RWY	1,600 until DER*, then 3,000
10 (OAKE)	090°	3,000
12 (OAKE)	RWY	

** Departure end of the runway*

4-5 Additional Authorized Headings

a. Upon verbal approval from NCT, the following headings are authorized as alternate departure or missed approach headings.

RUNWAY	HEADINGS (specified clockwise)
10L/10R	080° to 100°, 140° to 170°, 260° to 270°
12	080° to 085°, 110° to 170°, 240° to 270°
28L/28R	120° to 135°, 270° to 320°
30	255° to 322°, 120° to 135°
33	270° to 315°, 150° to 200°

4-6 VFR Routes

a. The routings need only be applied when the aircraft is requesting flight following.
b. Aircraft requesting a "Bay Tour" and utilizing flight following shall be issued departure instructions based on their direction of flight and shall have a scratchpad of "2ER" entered.
c. Landmarks
    i. The San Mateo Bridge Toll Plaza is located at the end of the eastern side of the bridge.
    ii. Lake Chabot is located on the OAK-070 radial at 5.0nm.
d. SFOW (OAKE only where listed)

DIRECTION/DEST	INSTRUCTIONS	ALTITUDE	DEP SECTOR
N / NW	Follow I-880	AOB 2,000	Richmond Grove (OAKE)
NE	On course	AOB 2,500	
E / SE	Remain north of Lake Chabot	AOB 2,500	Grove
S	Remain south of the San Mateo Bridge Toll Plaza	AOB 2,000	
SFO	Coordinate with NCT CIC/TMU (or SFO LC, NCT, ZOA)		

d. SFOE

DIRECTION/DEST	INSTRUCTIONS	ALTITUDE	DEP SECTOR
E / NE	Remain north of Lake Chabot	AOB 2,500	Richmond
N / NW	Follow I-880	AOB 1,500	Grove
SFO	Coordinate with NCT CIC/TMU (or SFO LC, NCT, ZOA)		

4-7 VFR Arrival/Departure Transitions

a. SFOW
    i. Arrivals
        1. Instruct RWY 28L/28R arrivals from the south/southeast to proceed to and cross the RWY 30 numbers at 2,000 then proceed to the Oakland Coliseum. If traffic permits, aircraft may be instructed to proceed to the San Leandro Marina at or below 1,400 for left base entry RWY 28L/28R.

NOTE- *This procedure brings aircraft close to HWD airspace. Be aware of HWD traffic and coordinate with HWD when necessary.*

    ii. Departures
        1. If a left turn to the Mid Span of the San Mateo bridge is approved it is an unrestricted turn and shall be instructed to maintain VFR at or below 1,400.
        2. Aircraft departing straight out from Runway 15 shall be instructed to maintain VFR at or below 1,400 and proceed direct to the Mid Span of the San Mateo Bridge.
        3. Aircraft making a right 270 departure off Runways 28L/R or right downwind departure off Runway 33 shall be instructed to cross the Runway 30 numbers, proceed to the Mid Span of the San Mateo Bridge, and maintain VFR at 1,400.

b. SFOE/OAKE
    i. Arrivals
        1. RWY 10L/10R arrivals from the south/southeast may be instructed to proceed east towards and/or remain clear of Class C Airspace. Traffic and weather permitting, arrivals may be instructed to proceed east of the Runway 28 numbers then direct to the Oakland Coliseum at 1,500.
    ii. Departures
        1. If a right turn to the Mid Span of the San Mateo Bridge is approved it is an unrestricted turn and shall be instructed to maintain VFR at or below 1,400.
        2. Left 270 departures shall not be authorized. Runway 10L/R departures not making a right turn shall be routed eastbound.
        3. Runway 15 departures shall be instructed to proceed direct to the Mid Span of the San Mateo Bridge and maintain VFR at or below 1,400.

Appendix A. Arrival/Overflight VFR Routes

a. The arrival/overflight routes below will be issued by NCT to aircraft on flight following before they enter OAK ATCT airspace and are provided for informational purposes

b. SFOW (OAKE only where listed)

ARRIVALS		
FROM DIRECTION	**INSTRUCTIONS**	**ALTITUDE**
N / NW	Via Mormon Temple (all) Via Oakland Coliseum (only cargo props and turboprops)	AOA 2,500
Any Direction (OAKE)	Oakland Coliseum	2,500
OVERFLIGHTS		
FROM DIRECTION	**INSTRUCTIONS**	**ALTITUDE**
NW – NE	Oakland Coliseum	2,500
S / SE	San Mateo Bridge Toll Plaza	2,000
Down the Bay (Outbound)	--	AOB 2,000
Down the Bay (Inbound)	Enter OAK Class C south of Runway 30 and outside SFO Class B airspace	AOB 1,500

c. SFOE

ARRIVALS		
FROM DIRECTION	**INSTRUCTIONS**	**ALTITUDE**
N / NW	Oakland Coliseum	2,000
S	San Mateo Bridge Toll Plaza	1,500
All others	Lake Chabot	--
OVERFLIGHTS		
FROM DIRECTION	**INSTRUCTIONS**	**ALTITUDE**
S / SE	San Mateo Bridge Toll Plaza	1,500
All others	Oakland Coliseum	2,500

Appendix B. Noise Abatement

a. Noise abatement procedures are not required to be applied. They are shown in this appendix for those who choose to simulate them.
b. Noise abatement procedures may be activated as follows
    i. SFOW: Monday – Saturday 2200L until 0700L and Sunday until 0800L
    ii. SFOE: Monday – Sunday 2200L until 0600L
    iii. SALAD# is in use 2200L until 0700L daily
c. OAK ATCT is in CFR status for all departures
d. DP/Route/Heading and Altitude Assignment
    i. SFOW

DEST/ROUTE	RUNWAY	AIRCRAFT	DP/HDG	DEP SECTOR	ALTITUDE
All	30	P, T	270°	*Varies* [2]	10,000
Northbound		J & DH8D	HUSSH# SLNT#	Richmond	CVS (HUSSH#) CVS x FL190 (SLNT#)
Oceanic			270° HUSSH#	Sutro	10,000 (270°) CVS (HUSSH#)
Southbound	28 / 30	J & DH8D	270° *SUNNE#* [1]	Sutro	10,000 (270°) 5,000 (SUNNE#)
Northbound	28	J & DH8D	270°	Richmond	10,000
All	28	P, Cat A/B	SALAD#	Richmond	CVS x 4,000

[1]*SUNNE# DP will be authorized by NCT when traffic levels allow*

[2]*Richmond for northbound departures, Sutro for oceanic/southbound departures*

    ii. OAKE

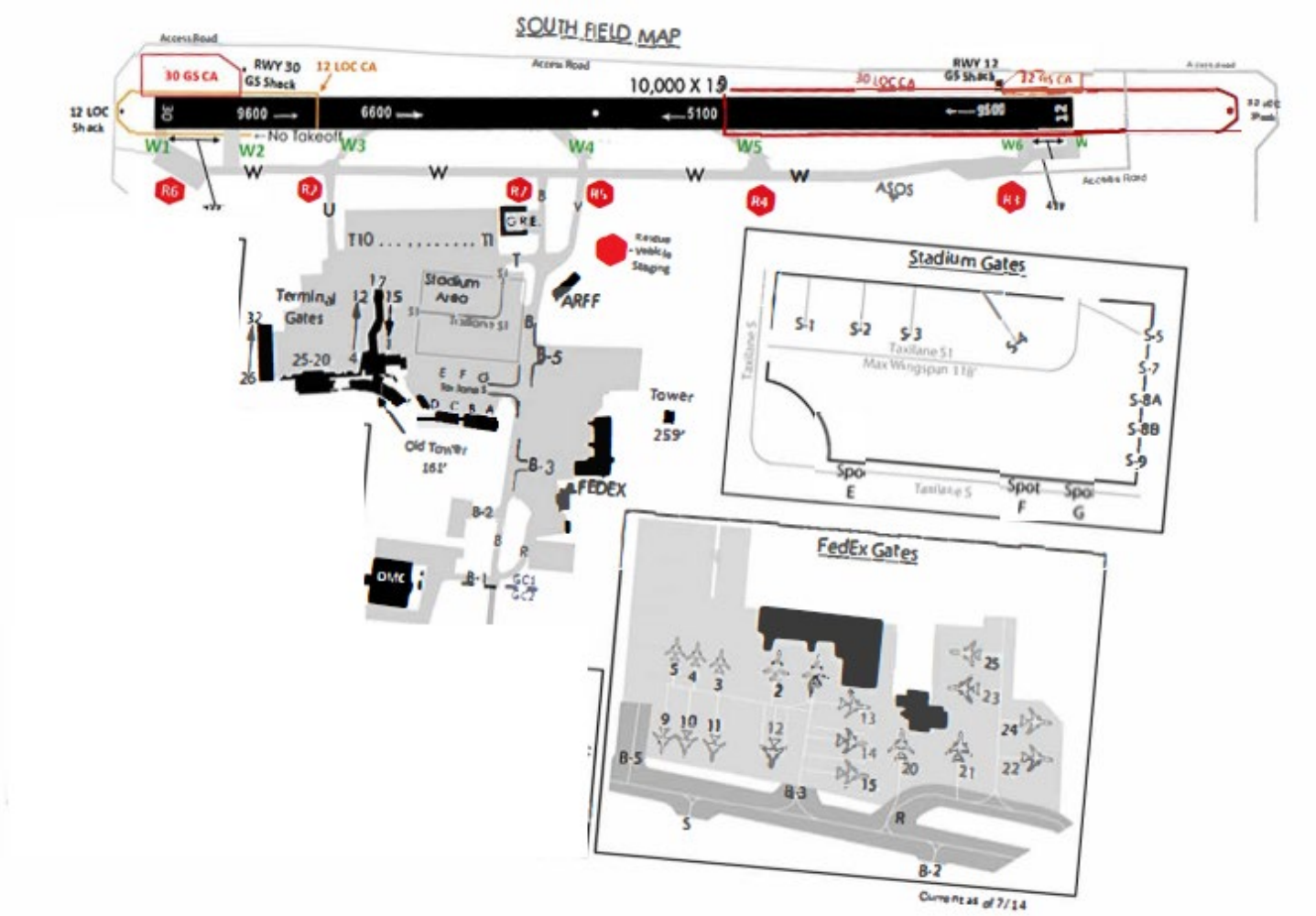
DEST/ROUTE	RUNWAY	AIRCRAFT	DP/HDG	DEP SECTOR	ALTITUDE
All	10 / 12	P, T	090°	Grove	3,000
		J & DH8D	QUAKE# 270°		5,000

    iii. SFOE

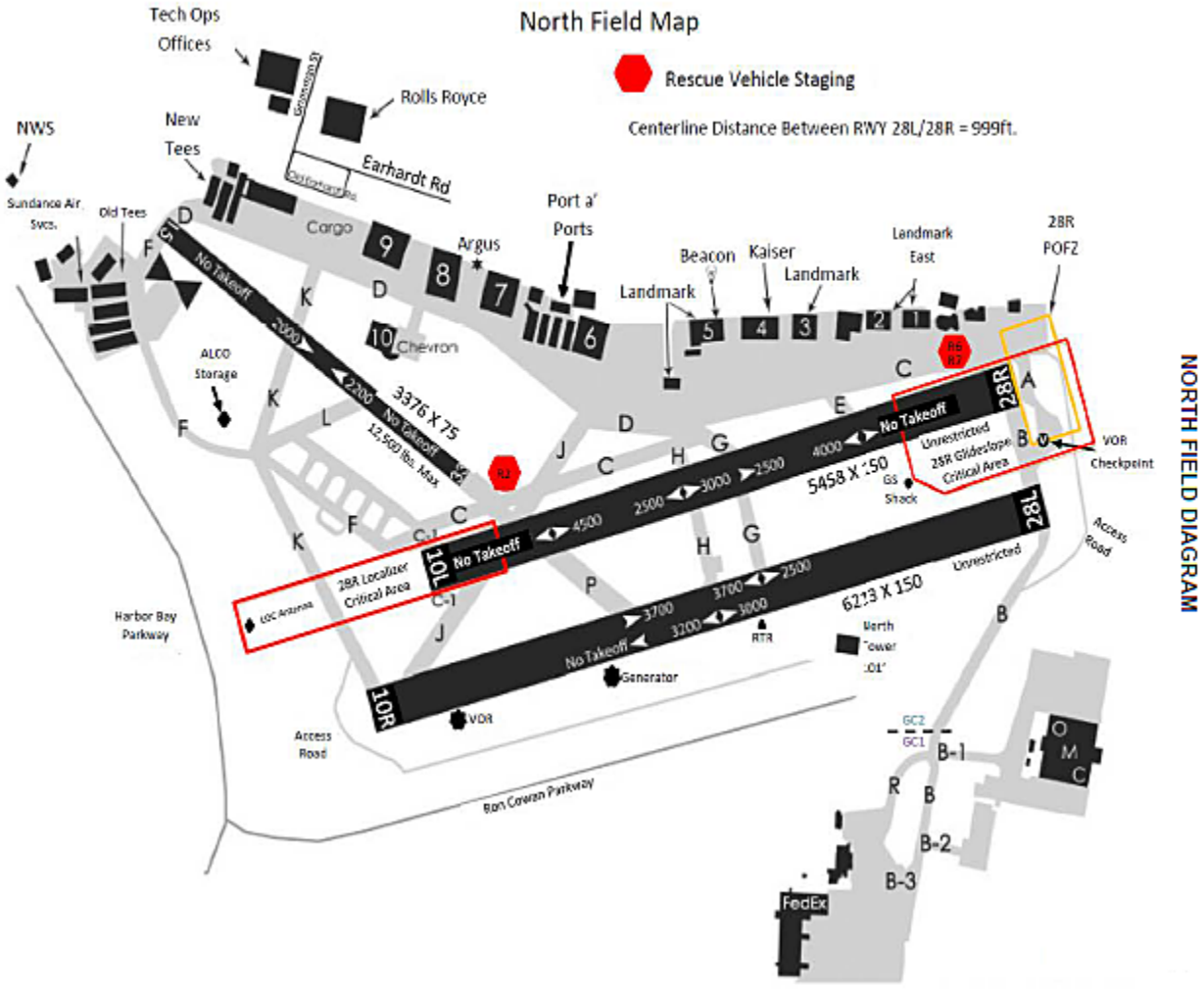
DEST/ROUTE	RUNWAY	AIRCRAFT	DP/HDG	DEP SECTOR	ALTITUDE
All	10 / 12	P, T	090°	*Varies**	3,000
		J & DH8D	140°		

** Richmond for northbound departures, Sutro for oceanic/southbound departures*

Attachment 1. South Field Map

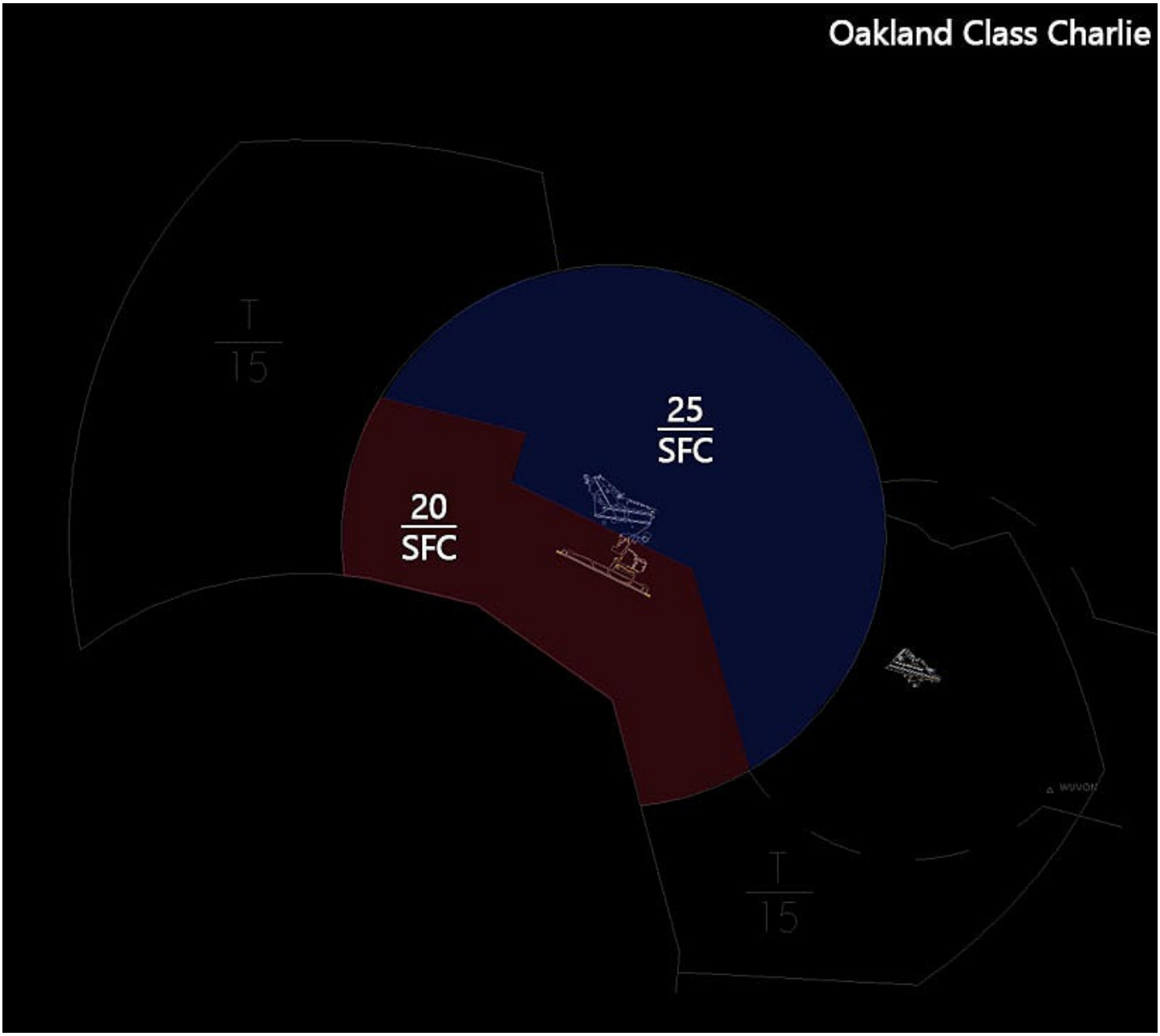


Attachment 2. North Field Map



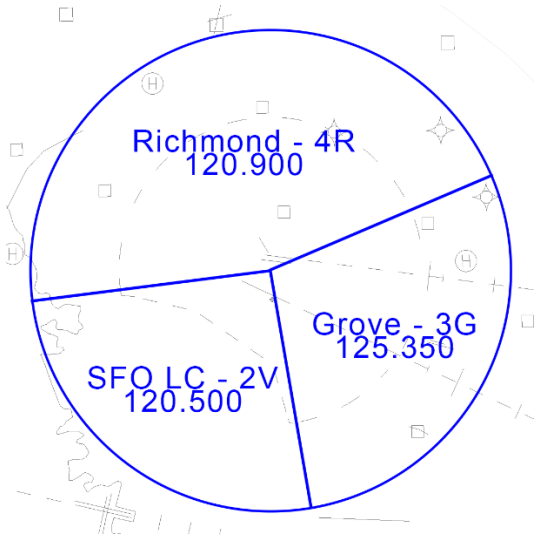
Attachment 3. OAK Class C Airspace

Areas shaded in blue and red represent airspace delegated to the OAK ATCT

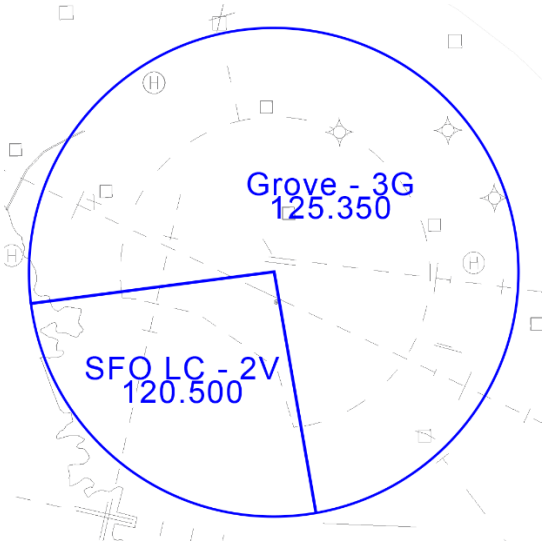


Attachment 4. VFR Handoff Boundaries

a. SFOW



b. OAKE



c. SFOE