



FlySafe Communication 2026

Presented By

Justin Martin Oakland Center ZOA

Steve Ingebretson Truckee Tower TRK



FlySafe ATC Communications 2026 Edition

Presented by Truckee Tower and Oakland Center



FlySafe Communication 2026 Edition



FlySafe Discussion Items

- Introductions
- Truckee Tower
- Oakland Center
- Local ATC Facilities
- Basics ATC 101
- No Radio Communication
- Mandatory Readbacks
- ATC Instruction Clarification
- SVFR
- Circling Approach
- Tower Tours
- Questions

Local ATC Facilities

Truckee Tower

KTRK



Oakland Center

ZOA



NorCal Approach

NORCAL





FlySafe Communication 2026 Edition



Basic ATC 101

- Who You Are

Use full call sign

Type Aircraft

(One time call sign usage)

- Where are you

Position

Distance

- What do you want to do

Full Stop

Closed Traffic

Short Approach

- What Information (ATIS)

- ~~“We have the information”~~

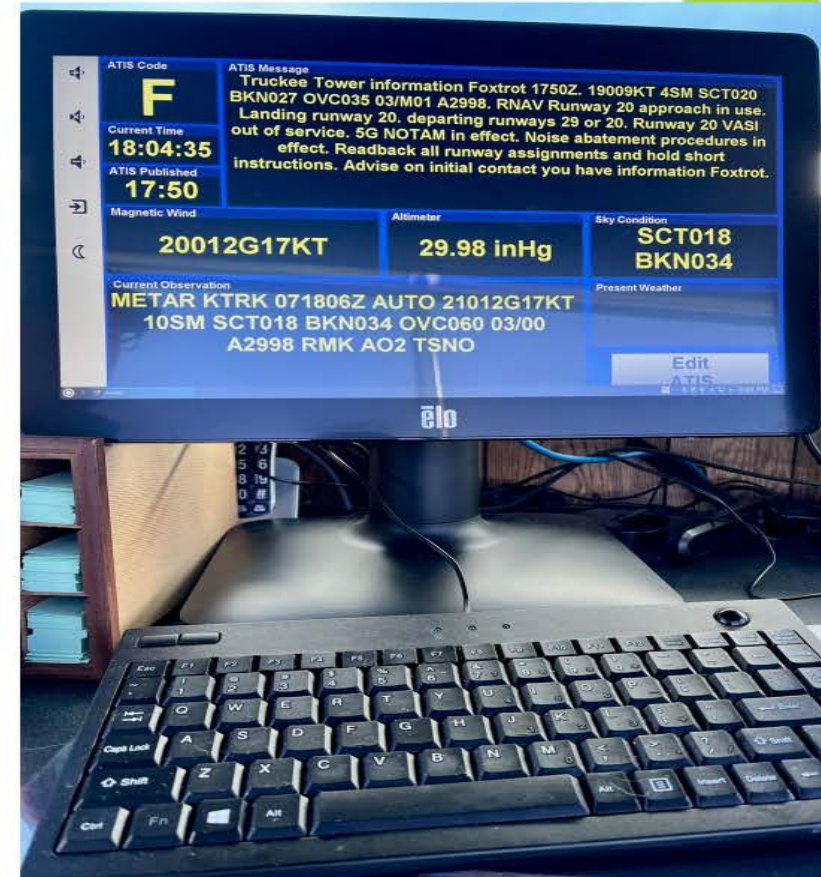
- ~~“We have the ATIS”~~

- “We have the numbers”

If you are IFR inbound, the controlling agency, ZOA or NorCal, will be sure that you have the proper ATIS, before clearing you for the approach and switching frequencies. [You may still hear us give you current wind, altimeter and other possible changes once switch to the tower.]

ATIS Procedures and Requirements

- ▶ Content specified by FAA Orders to include:
 1. Weather Information
 2. Type Approach (Visual or Instrument) and Runway in Use.
 3. Departure Runway (only if different from landing runway)
 4. NOTAM Information
 5. Runway Condition Codes/Braking Action Advisories
 6. Local Items – LLWS, gliders, bird activity, Noise Abatement Procedures
 7. Readback all runway hold short instructions
- ▶ Brief and concise as possible



FlySafe Communication 2026 Edition



TBL 3-2-1
ATC Light Signals

Meaning			
Color and type of signal	Aircraft on the ground	Aircraft in flight	Movement of vehicles, equipment and personnel
Steady green	Cleared for takeoff	Cleared to land	Cleared to cross; proceed; go
Flashing green	Cleared to taxi	Return for landing (to be followed by steady green at the proper time)	Not applicable
Steady red	Stop	Give way to other aircraft and continue circling	Stop
Flashing red	Taxi clear of landing area or runway in use	Airport unsafe– Do not land	Clear the taxiway/runway
Flashing white	Return to starting point on airport	Not applicable	Return to starting point on airport
Alternating red and green	General Warning Signal– Exercise Extreme Caution	General Warning Signal– Exercise Extreme Caution	General Warning Signal– Exercise Extreme Caution



- 3-2-3. RECEIVER-ONLY ACKNOWLEDGMENT
- To obtain acknowledgment from an aircraft equipped with receiver only, request the aircraft to do the following: a. Fixed-wing aircraft:
 - 1. Between sunrise and sunset:
 - (a) Move ailerons or rudders while on the ground.
 - (b) Rock wings while in flight.
 - 2. Between sunset and sunrise:
 - Flash navigation or landing lights.

With the technology of cell phones call if you can. It could be a good option. Especially as a back up.



READ-BACK

Read-back is vital for ensuring mutual understanding between the pilot and the controller of the intended plan for that aircraft.

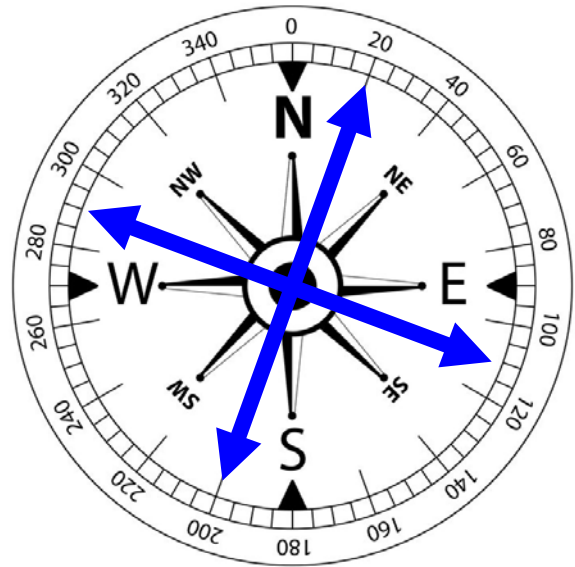
- Following correct read-back the flight crew must ensure that they carry out the correct action. Statistics show that one of the most common causes of a level bust in Europe is correct read-back followed by **incorrect** action.
- Strategies to prevent the above error include noting down the clearance prior to read-back and ensuring that both flight crew members listen to all clearances, including taxi clearance. **If in doubt check!**



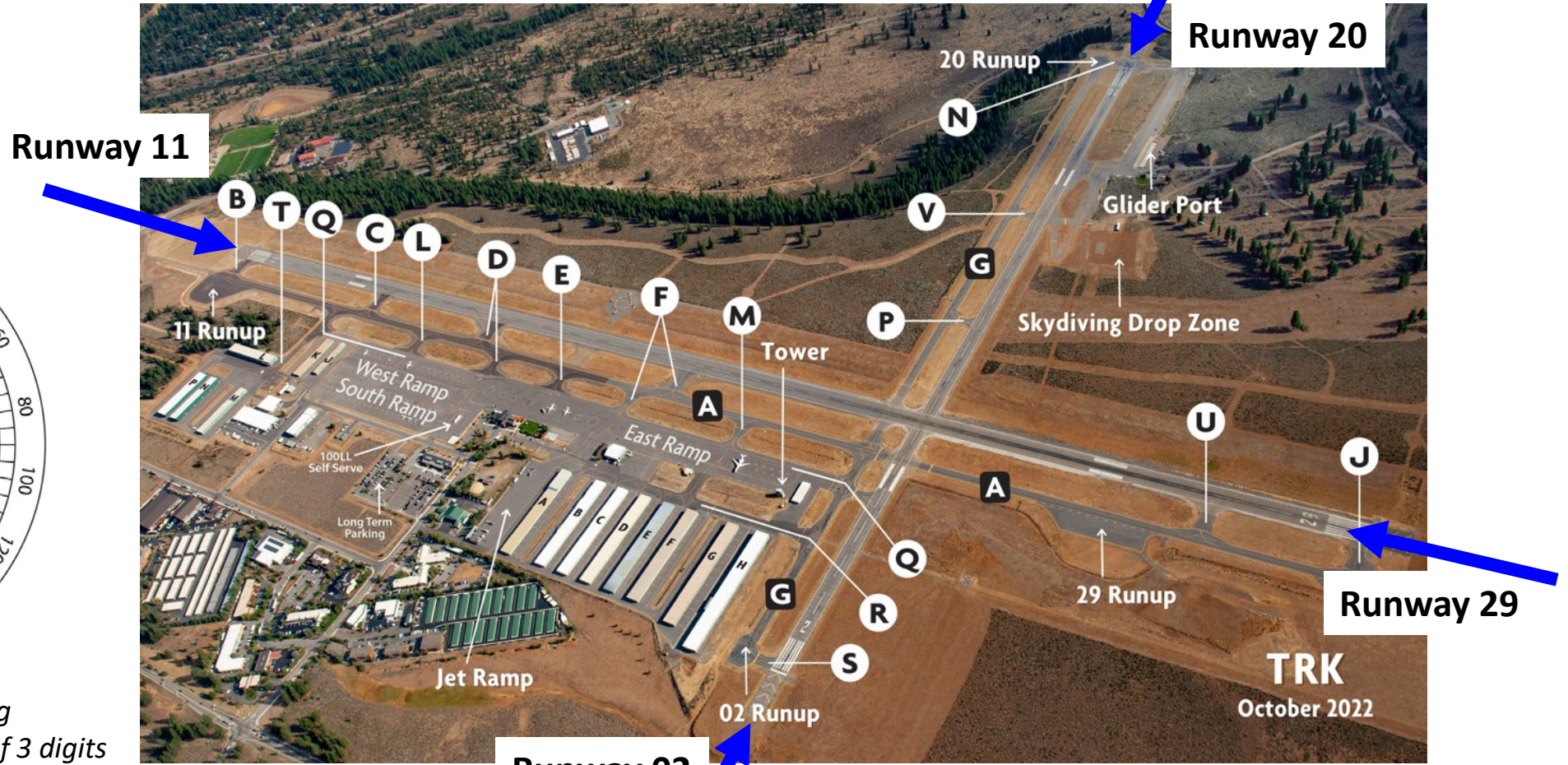
- **Taxi Clearance**

- **Clearance Limits with instructions-Proper read backs including Hold short and runway assignment.**
- “Cessna 9110H, Runway Two Niner, taxi via Alpha, hold short of Runway Two.”
- “Cessna 9110H, Roger.”
- “Cessna 9110H, read back hold instructions.”
- **2.**
- “Truckee Tower, Cessna 9110h is ready for departure.”
- “Cessna 9110H, hold short of Runway Two Ninner, traffic one mile final.”
- “Cessna 9110H, Roger.”
- “Cessna 9110H, read back hold instructions.”
- **If unfamiliar in the air or on the ground: Please advise. We are there to help**

FlySafe Communication 2026 Edition



Runways align to compass heading
Runways # is shortened to first 2 of 3 digits



Runways & Taxiways



- **Cleared for the option: (what are the options)**
 - **Full Stop**
 - **Go Around**
 - **Low Approach**
 - **Touch and Go**
 - **Stop and Go**
- **What is not automatically approved?**
 - **Short Approach (Why?)**



- **Special VFR Practice:**
 - **What is the requirements for SVFR?**
 - **Visibility is based on prevailing**
- **Can you request SVFR if field is VFR? If so why?**



- **PHRASEOLOGY:**
- **“(Aircraft identification) MAINTAIN VFR, PRACTICE APPROACH APPROVED, NO SEPARATION SERVICES PROVIDED.”**
-
- **Requirements:**
- **IFR Circling approach information:**
- PHRASEOLOGY– CIRCLE TO RUNWAY (number)
- or
- CIRCLE (direction using eight cardinal compass points) OF THE AIRPORT/RUNWAY FOR A LEFT/RIGHT BASE/DOWNWIND TO RUNWAY (number).

Tower Tours

- ▶ Monday-Friday: 10:00am-3:00pm
- ▶ Saturday-Sunday: 11:00am-3:00pm
- ▶ Email tour requests to trknfct@midwestatcs.com
- ▶ ZOA Tours – jmartin@natca.net



FlySafe Communication 2026 Edition



Question?

THANK YOU FOR COMING!

Improving Communications with ATC

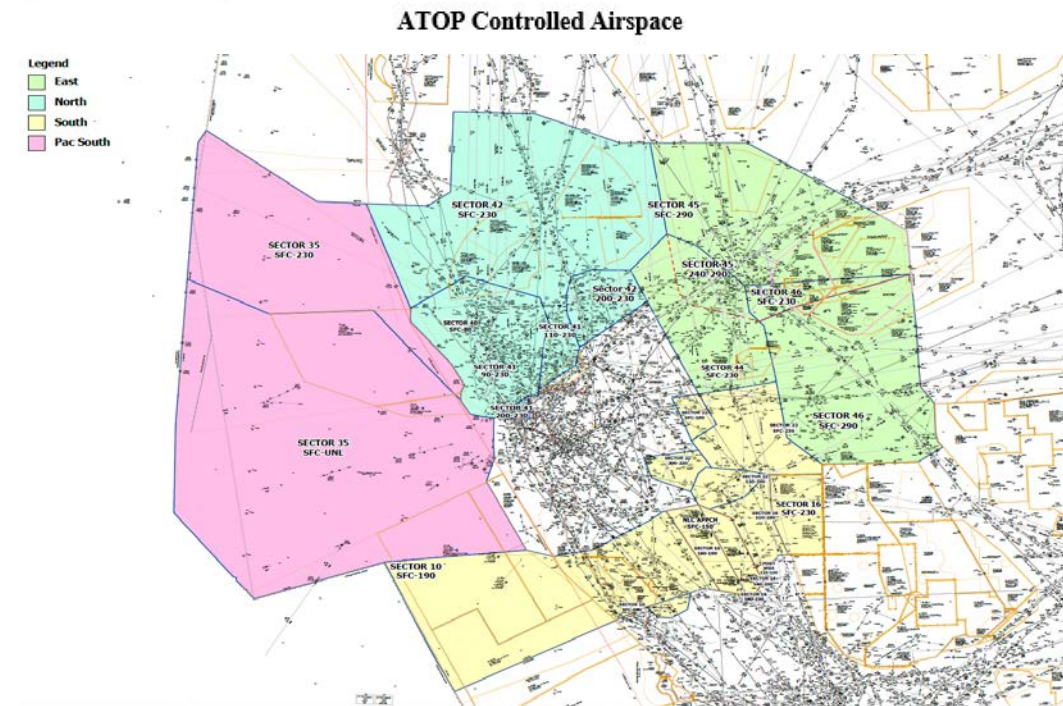
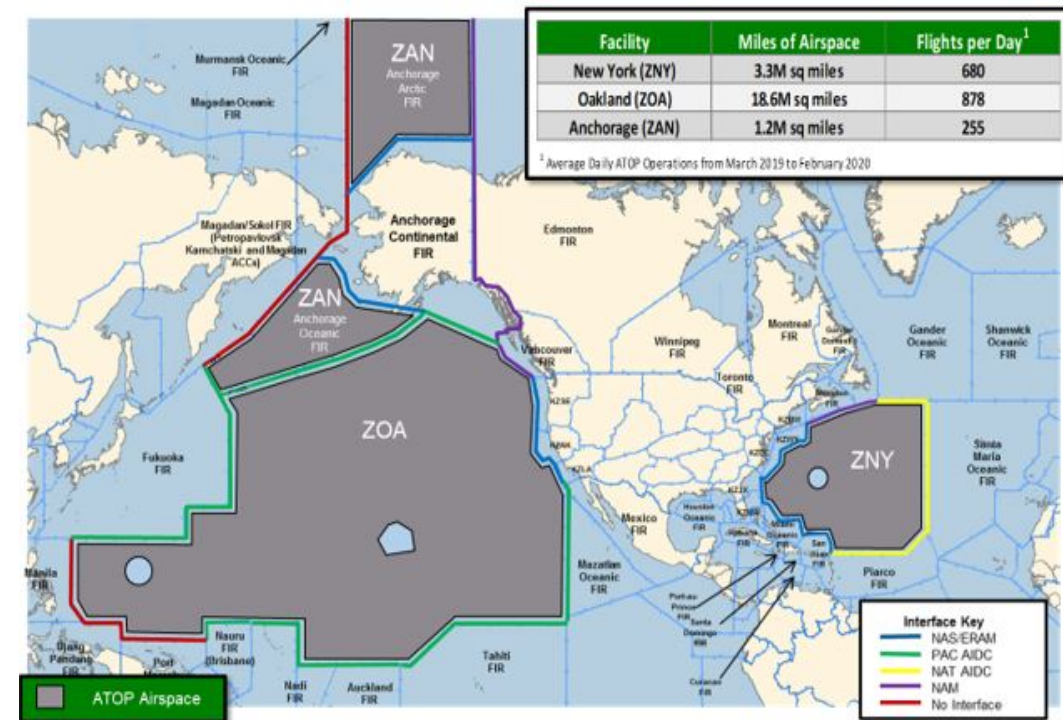
Topics:

- Brief Oakland Center (ZOA) Familiarization
- Operations Overview/Enroute Controller Duties
- Improving Communications
 - Frequency usage and limitations
 - Understanding surveillance limitations
 - IFR Flying
 - Follow Through
 - Terminating flight following
 - Cancelling IFR
- FAQs and Open Forum



About ZOA

- 5 Areas
 - 3 Domestic
 - 2 Oceanic
- 18,823,640 sq. mi. of total airspace (9.7% of the Earth's surface)
- Each Domestic Area has 6 radar sectors (3 low and 3 high)



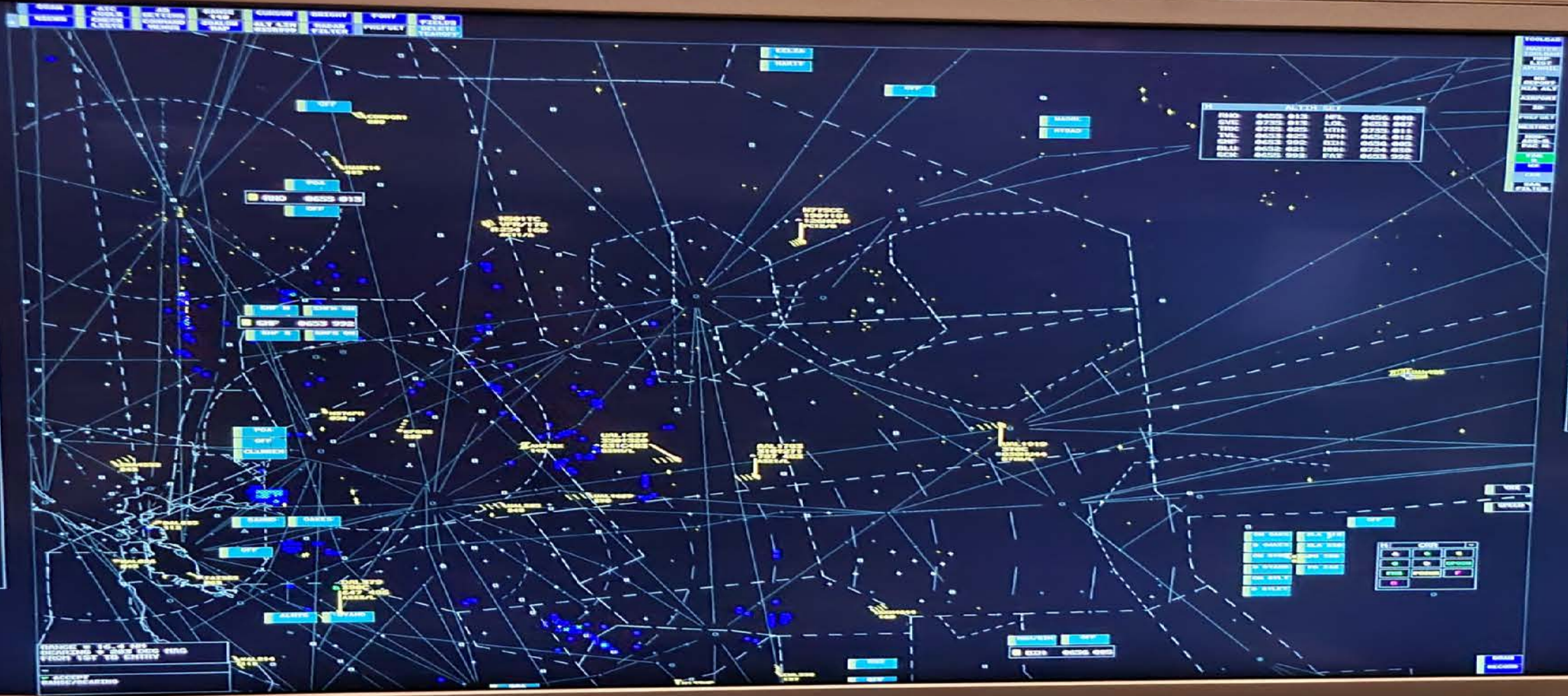
About ZOA

- **RADAR/Surveillance**
 - ERAM (En Route Automation Modernization)
 - 12 second updates utilizing multiple RADAR feeds and ADS-B
 - Reduced surveillance limitations due to ADS-B
- **Communications**
 - Various RCAG/radio sites located around Northern CA and NV
 - Most sectors utilize multiple frequencies and multiple RCAG sites
 - Frequency limitations due to terrain





ETAM Workstation



INIT CLR

1 2 3

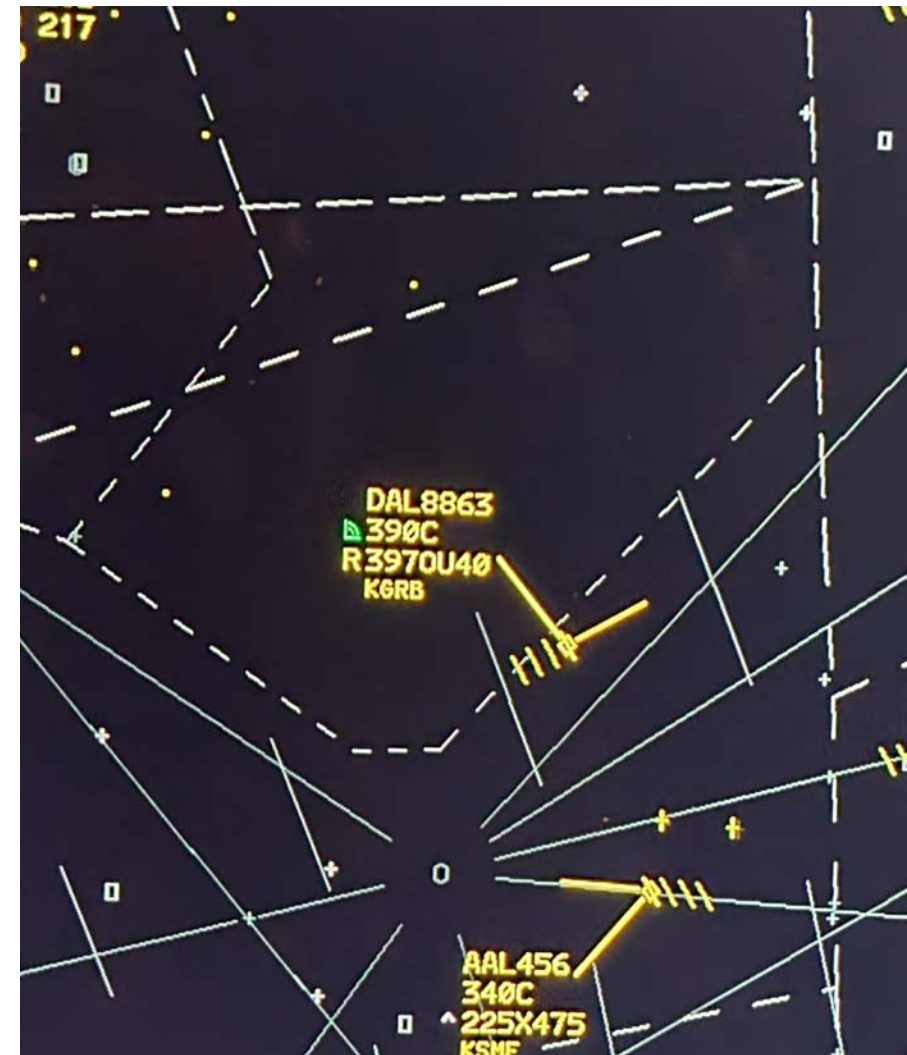
4 5 6

7 8 9

0



ERAM Data Blocks



ERAM Decision Support Tool (EDST)

↓ MORE | ACL 10 | DEP 09 | GPD | PLANS | WX REPORT | SIG ✓ | GI ✓ | UA | CPDLC HIST

Aircraft List

Plan Options... | Hold... | Show | Show All | Sort... | Tools... | Posting Mode

Add/Find | Facilities: L U S

Y	A	Flight Id	PA	Type	Alt	Code
<input type="checkbox"/>	<input type="checkbox"/>	471 ■ SWA2170		B738/L	390	33
<input type="checkbox"/>	<input type="checkbox"/>	212 ■ SWA595	P 41	B737/L	410T190	33
<input type="checkbox"/>	<input type="checkbox"/>	983 □ UAL2356 (41)		B739/L	370	33
<input type="checkbox"/>	<input type="checkbox"/>	401 □ SWA1134 (L16)		B737/L	360	72
<input type="checkbox"/>	<input type="checkbox"/>	520 □ SWA1349 (L16)		B738/L	340	105
<input type="checkbox"/>	<input type="checkbox"/>	177 □ FDX5078 (31)		H/B77L/L	350	117
<input type="checkbox"/>	<input type="checkbox"/>	058 □ FDX883 (41)		H/B77L/L	370T260	332
<input type="checkbox"/>	<input type="checkbox"/>	382 □ UAL452 (41)		B739/L	310	326
<input type="checkbox"/>	<input type="checkbox"/>	722 □ SWA1960 (L04)		B737/L	360	734
<input type="checkbox"/>	<input type="checkbox"/>	789 □ SWA1663 (000)		B737/L	310T190	336

Plan Options... | Sort... | Posting Mode | Template...

Departure List

Time	Flight ID	Type	Alt	Code	Route
1230	900 UAL2415	B738/L			
1245	546 SWA2167	B737/L	250	3310	KRNO I . PVINE3 . PVINE
1255	137 FDX672	B737/L	330	3276	KRNO . PVINE3 . PVINE
1300	896 AAL813	H/B763/L	390	3344	KRNO . PVINE3 . PVINE
1305	600 DAL2762	B738/L	290	3221	KRNO I . PVINE3 . PVINE
1315	516 AAL1544	B739/L	330	3213	KRNO . PVINE3 . PVINE
1315	767 ENY3530	A321/L	350	3334	KRNO . PVINE3 . PYGOK
1315	796 SKW4178	E170/L	310	3234	KSMF I . RVRCT3 . RALE
		E75L/L	370	3230	KRNO I . PVINE3 . PVINE
					KSMF I . RVRCT3 . MACU

↓ MORE | ACL 06 | DEP 00 | GDP | PLANS | WX REPORT | SIG NOT | GI | UA | STATUS ACTIVE | OUTAGE 15 | 1204 41 | NON-ADSB | MSG WAIT

Aircraft List | Boundary Time | Automatic

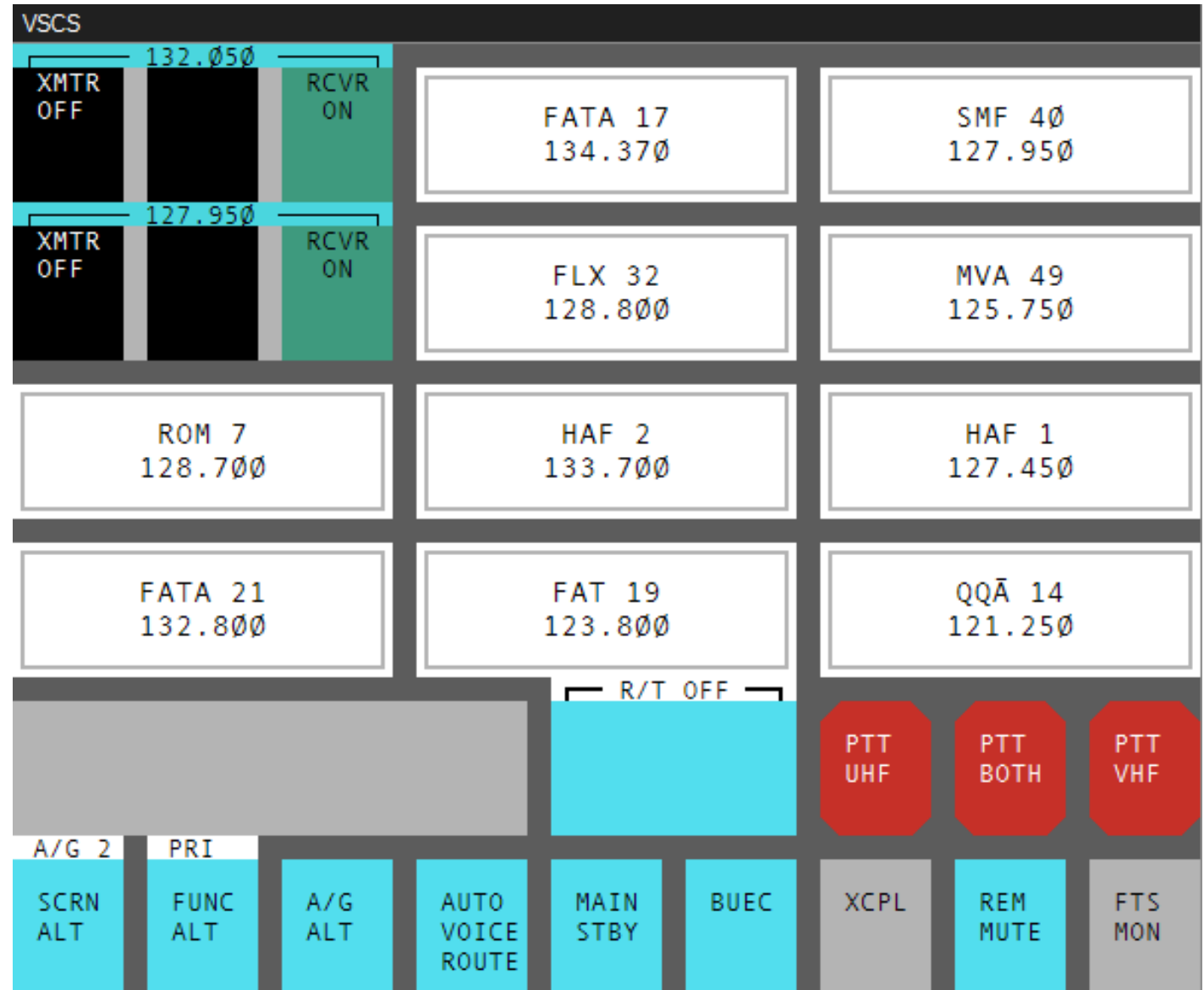
Plan Options... | Hold... | Show | Show All | Sort... | Tools... | Posting Mode | Template ... | Clean Up

Add/Find | Facilities: I N J T C

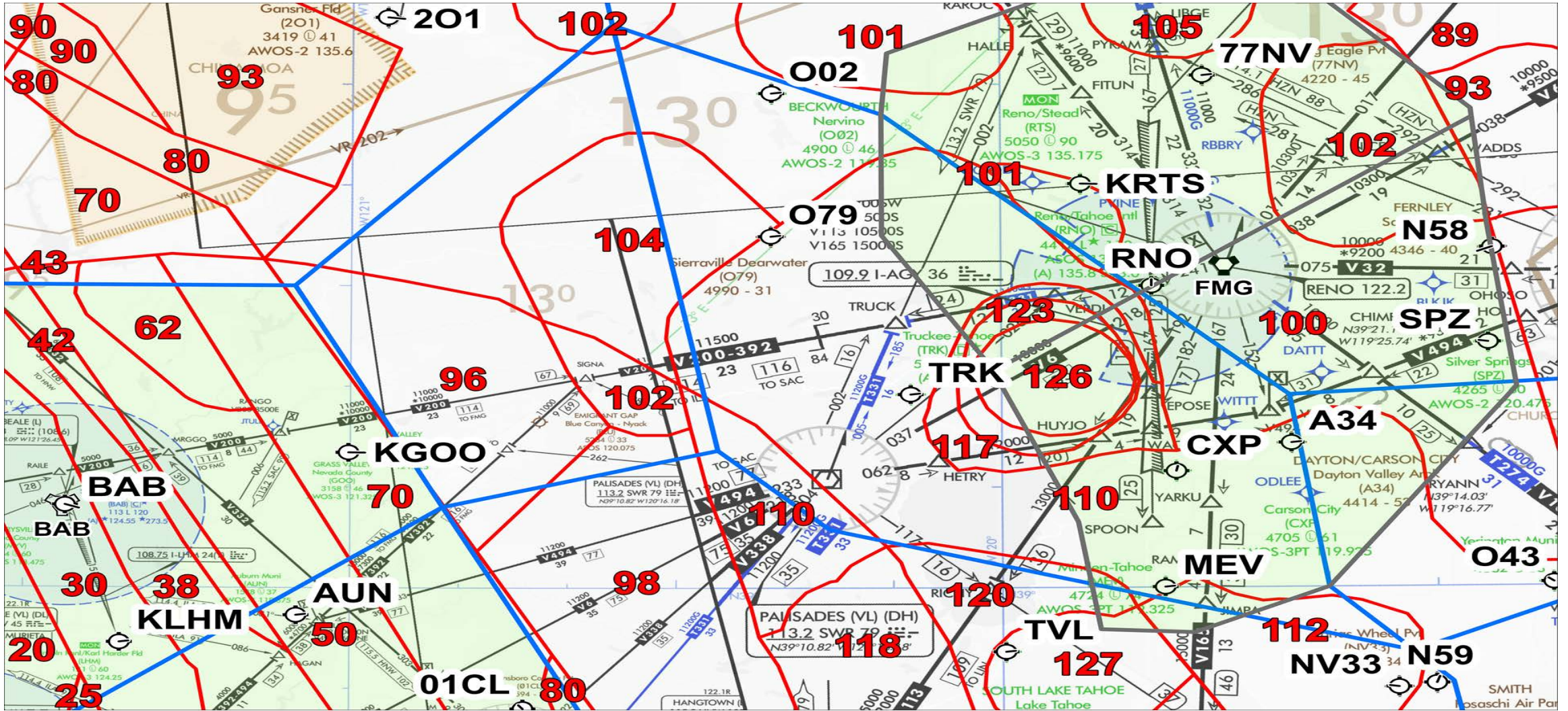
Y	A	Flight ID	PA	Type	Alt.	Code	H/S	Route
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	511 PDT3237		DH8A/I	140	1336		* KCHO ./.DEKAY . .NEST01 .KPIT
<input type="checkbox"/>	<input type="checkbox"/>	266 AWE1729		B73Q/A	220	7016		KRDU . .IHD .NEST01 .KPIT
<input type="checkbox"/>	<input checked="" type="checkbox"/>	434 DAL555		JS32/I	120	3624		* KIAD . .LDN .EKN . .KCRW
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	501 UAL3053		* B190/A	140	2120		KRIC ./.GUE .U38 .EKN . .KCLE

Voice Switching and Control System (VSCS)

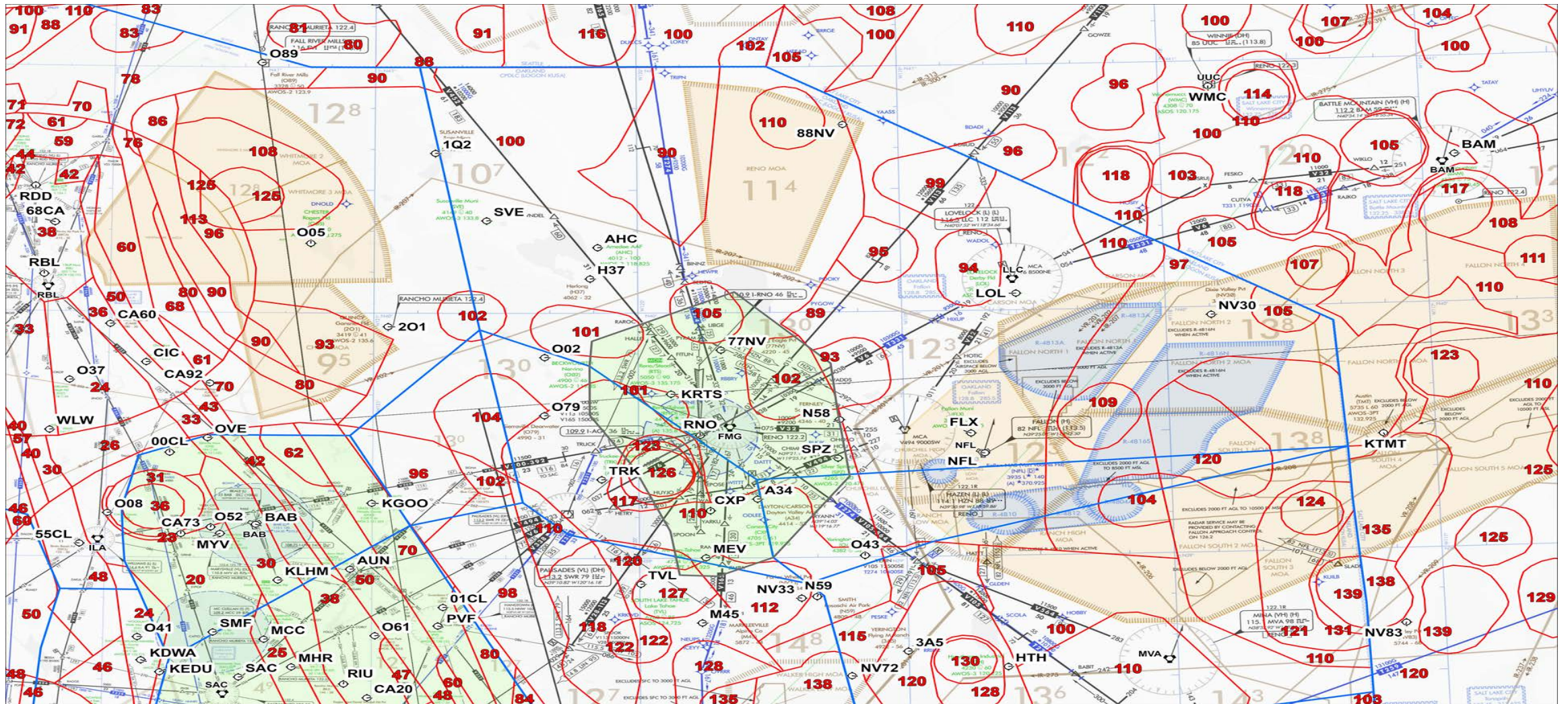
- Controls Air-to-Ground and Ground-to-Ground (“landline”) communications
- Allows controller to select frequencies, transmitters, and adjust other communication settings



Minimum IFR Altitudes (MIAs/MVAs)



Minimum IFR Altitudes (MIAs/MVAs)





Operations

- Sector Duties:
 - Sequencing/feeding to Approach Controls
 - NCT, FAT, BFL, SBA, NFL, NLC, LSV, JCF
 - Providing Approach Control Services
 - ZOA Towered Airports:
 - APC, STS, CIC, RDD, TRK
 - Many uncontrolled airports
 - Providing additional services
 - VFR Flight Following
 - Photo missions and other survey flights
 - Mountain/Snow surveys are common over the Sierra Nevada
 - Military Operations
- Sequencing
 - SFO, OAK, SJC, LAX, LAS, SMF, RNO, PHX, SEA
- Route deconfliction and separation
- Weather
 - Turbulence and WX deviations

Operations



- Complexities for Low Sectors:
 - High terrain
 - Weather
 - Complex military airspace and training activity
 - Traffic volume
 - Managing multiple frequencies and RCAG sites
 - Including GCOs
 - Controller-to-Controller coordination
 - Giving IFR clearances and releases to Flight Service, Flight Data, and Towers
 - Coordinating real-time information with adjacent sectors & facilities
 - Increased VFR operations in summer
 - Glider Activity
 - Firefighting TFRs and operations
 - Parachute Jump Activity
 - Increased VFR flights and requests



Communication

- Improving Pilot/Controller Communications:
 - Understand frequency usage & limitations
 - Multiple frequencies and radio sites
 - Controller may be on another frequency or line
 - Frequency congestion can reduce ability to provide best service
 - Understand surveillance limitations
 - Limited RADAR coverage or outages
 - Lack of ADS-B ground stations or outages
 - Communicate with controllers directly and efficiently
 - “Hey you, this is me, this is what I want.”
 - This improves controller’s ability to quickly respond and accommodate requests
 - Do not be afraid to ask for clarification



Communications – IFR Flying

- IFR Flying:
 - Understand MIAs and altitude requirements
 - Ensure you are aware and file for an altitude that will comply with Minimum IFR Altitudes along entire route of flight
 - Controllers cannot issue turns below the MIA/MVA to IFR aircraft
 - Review MOAs, Restricted Areas, and other SUA
 - Filing direct without considering military airspace can create increased workload on ATC
 - Expect reroutes
 - If you are flying from one facility to another (i.e. one Center to another Center or Approach to Center), multiple reroutes are possible
 - Each facility may have a separate requirement on how to deliver aircraft to the next
 - Communicate
 - Ask questions. Weather and other factors change in flight, and ATC may have more real-time information. Do not be afraid to ask questions.



Communications – Cancelling

- Overdue Aircraft:
 - When receiving flight following, always cancel with ATC before switching frequency or changing squawk
 - Any aircraft that is not terminated (told to “squawk VFR”) or does not respond to termination must be tracked down
 - If aircraft cannot be located, we must initiate search & rescue
 - When on an IFR flight, failing to cancel IFR or close your flight plan could result in closing an airport and airspace around the airport
 - Uncontrolled airports are one in, one out. Failing to cancel IFR means we must protect the airport and surrounding airspace until you cancel or we confirm you have landed
 - If we are unable to verify you have landed, we must initiate search & rescue procedures



Communications – TRK Specific

- Surveillance Equipment Limitations
 - TRK NFCT's equipment does not directly interact with ERAM
 - Departures:
 - All IFR clearances are passed verbally from Center to TRK NFCT
 - TRK NFCT cannot input flight following data into "NAS"
 - Arrivals:
 - All IFR arrival information is verbally passed from Center to TRK NFCT
 - VFR arrivals are told "Radar service terminated, squawk VFR" to comply with rules regarding Towers without a Certified Radar Display (CRD)
- Cancelling IFR
 - Because TRK is a Towered airport, you are not required to cancel IFR.
 - During periods of high traffic, IFR traffic may experience increased delays due to IFR separation requirements. Pilots may find it more advantageous to proceed VFR in good weather.

FAQs



- **Q: Does ATC prefer pilots to receive flight following or fly VFR on a 1200 code in Class E airspace?**
 - A: It is generally preferred for pilots to receive flight following. This allows controllers to have direct communications with aircraft to provide separation services. It is significantly easier to separate two airplanes that are both talking to you than two airplanes when you are only talking to one of them. There are times that ATC workload is too high to accept flight following requests, and flight following is generally a low priority item when workload is high. Pilots should maintain situational awareness, monitor frequencies, and use good judgement based on current factors.
- **Q: How should I call ATC when requesting flight following?**
 - A: While there are multiple correct ways to do this, the best procedure is to first notify ATC with your callsign, altitude, location, and the phrase, “VFR request.” This will alert ATC where to look for your aircraft and will make it easier for the controller to radar identify your flight while reducing the number of transmissions needed. Include your type aircraft and destination in your subsequent transmission. This should look like this:
 - *Pilot: “Oakland Center, N12345, over Empire Airport at 9500, VFR request.”*
 - *ATC: “N12345, Oakland Center, squawk 0123, go ahead with your request.”*
 - *Pilot: “N12345 is a Cessna 182 Skylane requesting flight following to San Carlos.”*



FAQs (cont'd)

- **Q: ATC said, “Radar contact lost, say altitude.” What does that mean?**
 - A: It means you have exited our radar coverage, generally by being too low. With ADS-B, this is less frequent. If we anticipate we will not be able to see you again, we will have you squawk VFR since we can no longer provide radar advisories. If we anticipate to pick you back up shortly, we will keep you and notify you when you are visible on radar again.
- **Q: I’m flying VFR and lost communications with ATC, what should I do?**
 - A: If you no longer need services (flight following), squawk VFR. Attempt to reestablish contact with ATC if workload permits. If you are unable, call FSS or the phone number of the ARTCC (generally available in the chart supplement) once you land. If you need services or experience an emergency, squawk 7700 and transmit on 121.5 (guard).
- **Q: I am on an IFR departure procedure, and I request to turn early to avoid traffic or weather ahead, but ATC says I am below the MIA/MVA. What should I do?**
 - ATC cannot legally assign a turn or vector to an IFR aircraft below the MIA/MVA. Ultimately, the PIC is responsible for the safe operation of their aircraft. If you need to turn below the MIA/MVA, notify ATC that you are doing so, and ATC will likely respond with a “Low Altitude Alert.” Alternatively, if you are in VFR conditions, you can request a “VFR climb,” which allows ATC to treat your flight as VFR until reaching the assigned altitude. This would permit an early turn below the MIA/MVA.



FAQs (cont'd)

- **Q: Is it better for ATC if I depart VFR and pickup an IFR clearance in the air, or if I pick up the IFR clearance on the ground?**
 - A: This is completely up to the pilot; however, pilots should consider traffic, weather, and potential controller workload. If you depart VFR, issuing your IFR clearance in the air is likely not a priority if the controller is busy. If you are concerned about entering IMC shortly after departure, it is better to pick up your IFR clearance on the ground. Regardless of whether you pick up your IFR clearance in the air or on the ground, always file your IFR flight plan ahead of time to ensure smoothest handling and all necessary information for search and rescue purposes.

Questions?

