



Example Site

Cross Country Flight Planning in Region 11

Sergio Colacevich - Truckee and Sierra	- 20 mins
Morgan Hall - Avenal	- 20 mins
Peter Deane - Williams (SeeYou)	- 10 mins
Ramy Yanetz - Byron and Hollister	- 20 mins

Q&A (10 mins)



Truckee and the Sierra Nevada

Sergio Colacevich “C2”

www.soartruckee.com



Check The Weather During The Week

- Thermal updraft velocity
- Critical Updraft Height
- BL Wind
- Cu Cloudbase for $Cu_{pot} > 0$
- Cu potential
- CAPE
- Total Cloud Cover

Rating The Forecast For The Sierra:

- Booming day? 25% chance it is true
- Good day? 70% true
- Average day? 80% true
- Bad day? 60% true
- Awful day due to poor conditions? 50% true
- Awful day due to thunderstorms? 70% true
- Awful day due to wind? 80% true (but good for wave)

Be Prepared To Go

- Weather could be substantially better than forecasted
- Weather could improve during the day
- Have a number of tasks that you would like to do

Be Prepared for Landouts

- Extra water
- Extra cash
- Jacket, with hood, large pockets
- Landout kit with:
 - All-weather Poncho
 - Leatherman Multi-Tools
 - Band Aid, Tylenol
 - Pencil/pen
 - Eyeglasses

Aim To Start Early

- Possibly assemble the night before
- Have everything ready in a bag the night before
- Wake up early, try to be ready to fly at 10:00 AM
- Check the weather. Check the trigger temperature.
- Ask conditions to the tow pilot.
- Look around for signs of lift, soaring birds, clouds.
- Take off early. Those extra 30 minutes in the morning will be precious in the evening coming back.

Prioritize Flying Areas For Frequency

- 1– East (Central Nevada, Austin). 10% Freq.
- 2 – North East (Winnemucca). 15% Frequency
- 3 – South (Sierra). 20% Frequency
- 4 – North (Susanville, Lassen). 30% Freq.
- 5 – South East (Hilton, Bishop). 80% Freq.**

** It does not add up to 100% since to the south is flyable on most days

Going North To Lassen Pk

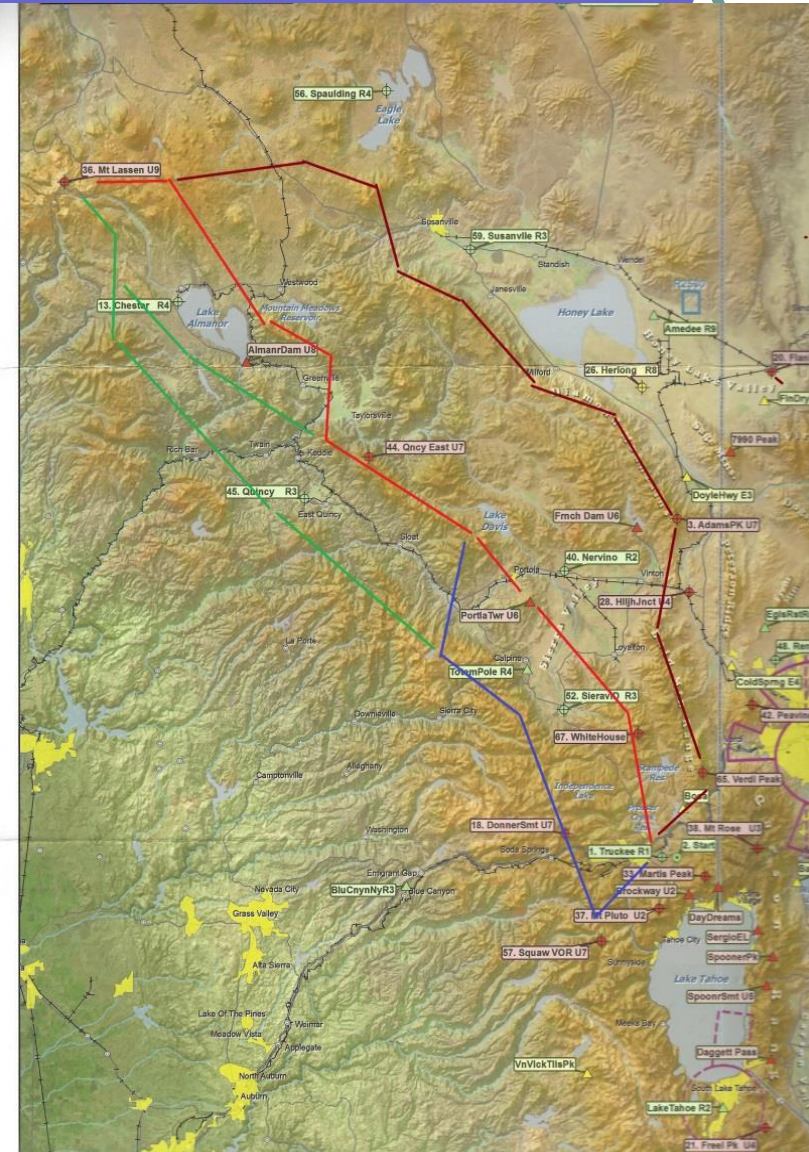
Red - Cross the valley toward Nervino, get to the ridge east of Quincy, then the ridge east of Greenville, continue east of Lake Almanor. Frequency: 40% of the time.

Brown - Go to Adams Pk, follow the ridge to west of Susanville. Frequency: 35%.

Blue - Go west to the Sierra, continue on the Sierra to Graeagle, then cut to the ridge east of Quincy. Frequency: 12%.

Green - From Quincy East pass west of Lake Almanor. Frequency: 10%.

Green - From Graeagle continue west of Lake Almanor. Frequency: 3%.



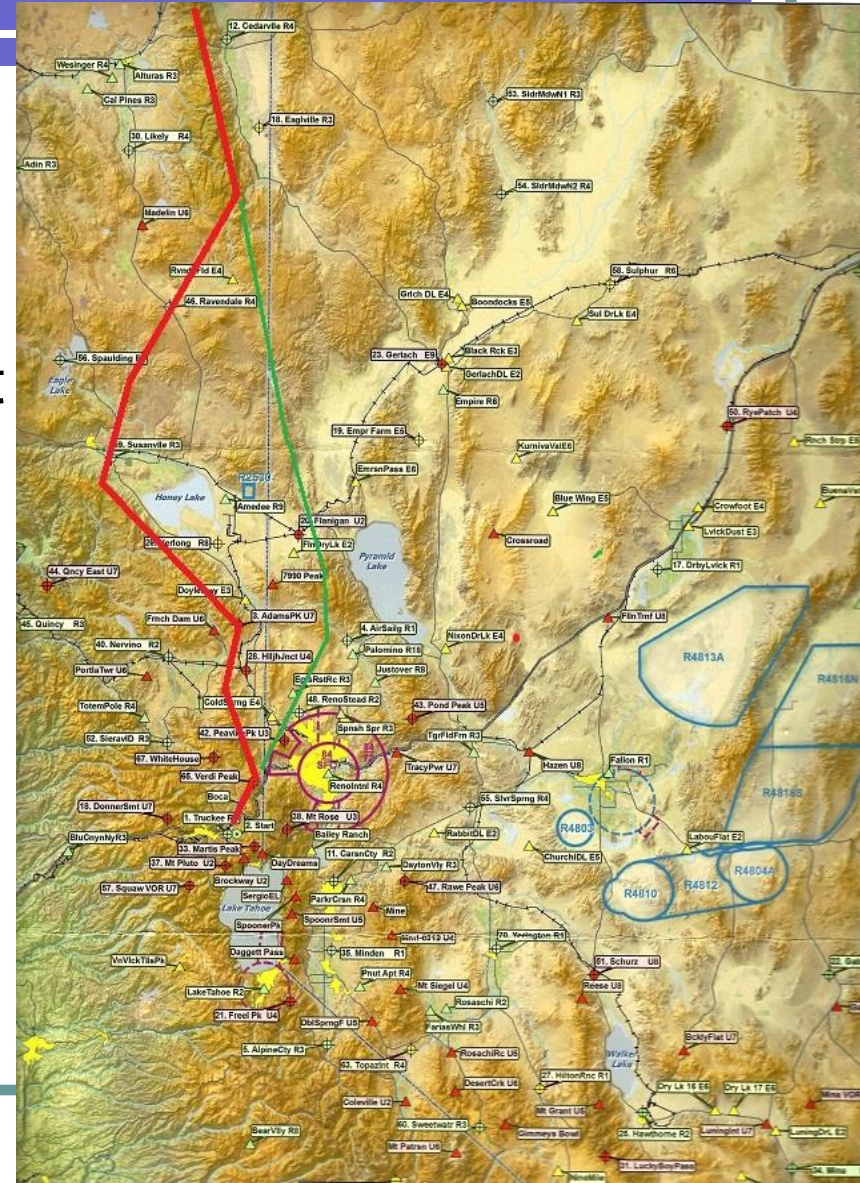
North To Cedarville and the Oregon Border

Red —

Go to Adams Pk, follow the ridge to Susanville, then direct towards the ridge west of Egeleville.

Green —

Or, Go to Air Sailing, Virginia Mtns, then north.

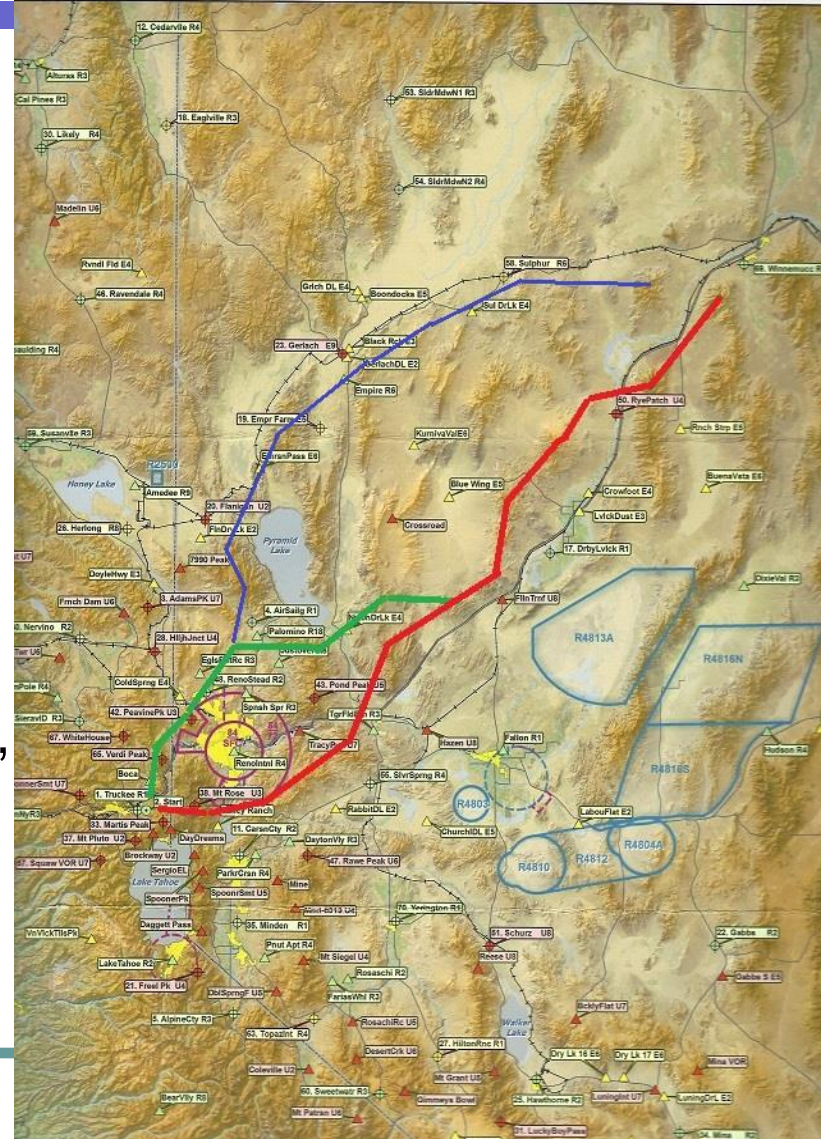


Going North East to Derby, Winnemucca

Red - From Mt Rose cross to the hills of Virginia City, follow the ridge towards Tiger A/P, cross to the line of mountains north of Hwy 80 to about Rye Patch Res., then cross to the Star Peak ridge.

Green - Or, From Verdi Peak go to Air Sailing, cross to the mountains north of Hwy 80.

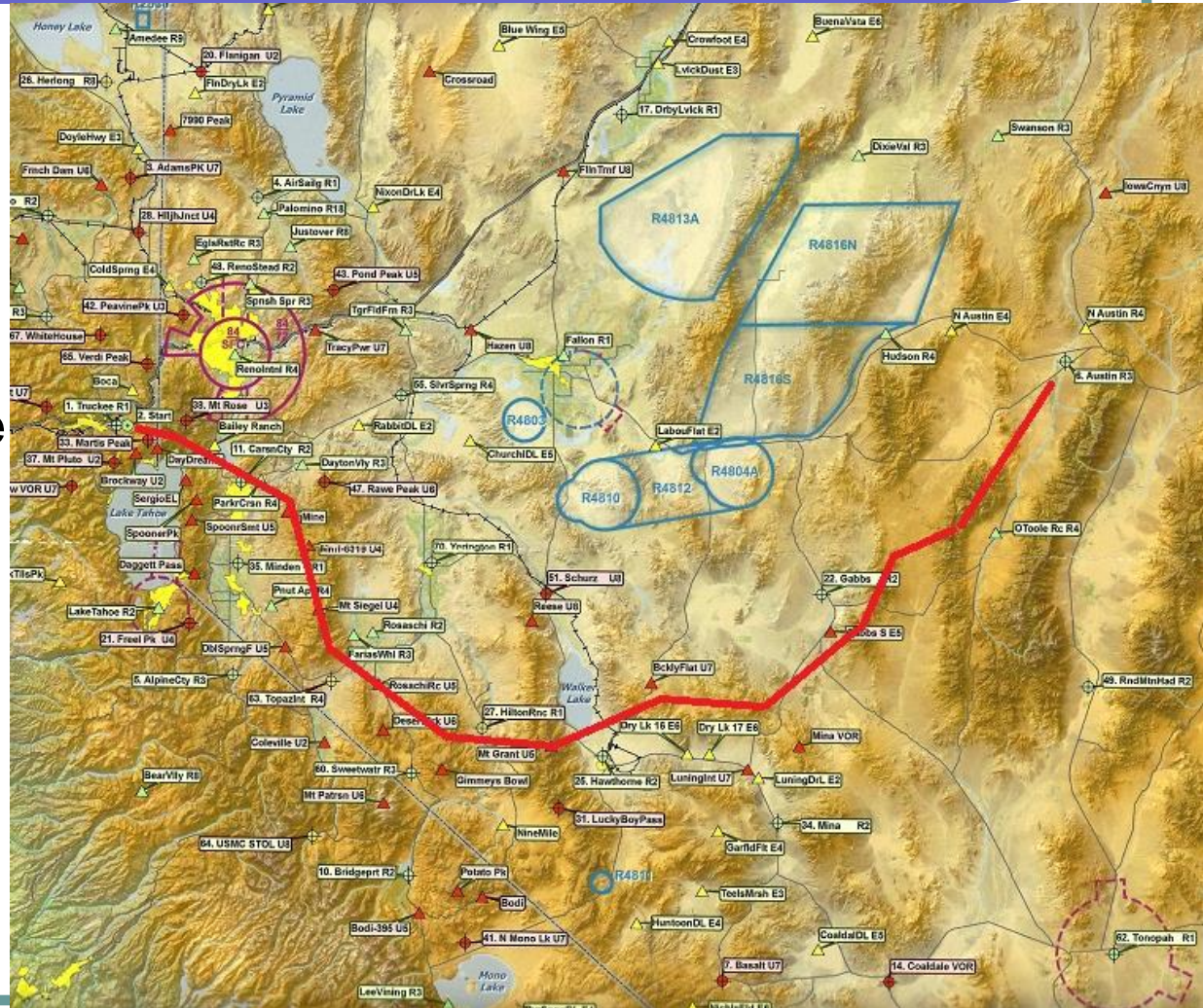
Blue - Or, go to Air Sailing, Virginia Mtns, Sulphur.



Going East to Central Nevada

Red –

Go to Mt. Grant,
then continue on
the hills north of the
large valley east of
Hawtorne, then to
Gabbs.



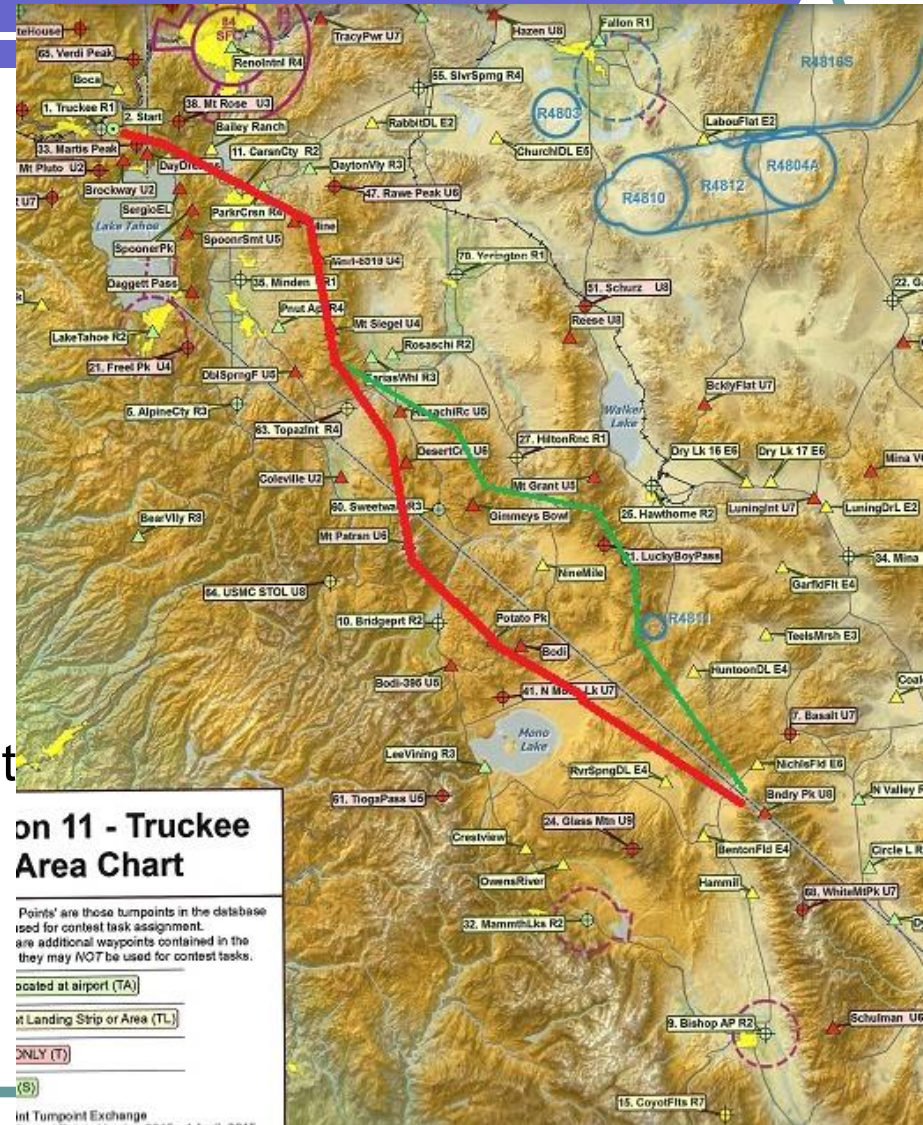
Southeast to Hilton, Boundary Pk

Red –

Go to the Pine Nuts, then to Patterson, then the Potato Pk range, and then Boundary Pk

Green –

Or, from the Pine Nuts go to the Sweetwater Range, then to the Mt Grant range



Going South To The Sierra

Red –

Go to Mt Patterson, then cross to the Sierra Freq. 30%.

Thick Green –

Go to Mt Rose and cross to the Pine Nuts. At their south end, cross toward the Sierra. Frequency 25%.

Thin Green –

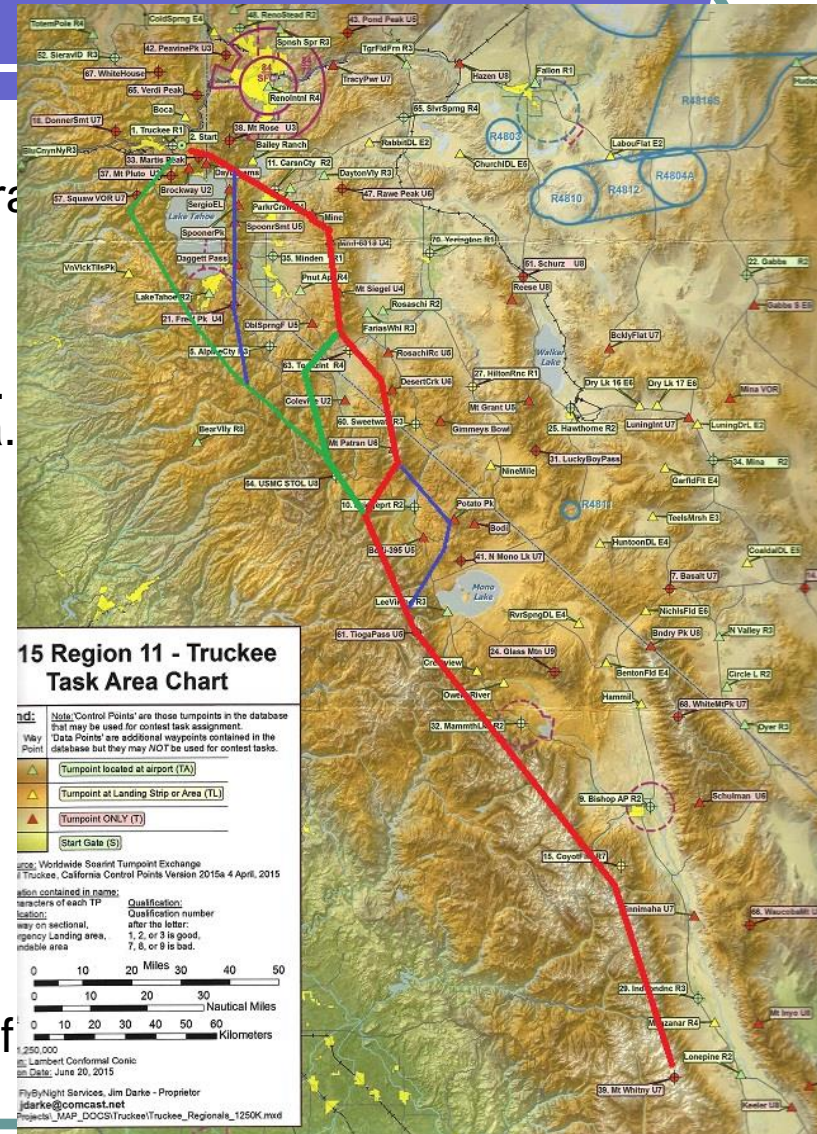
Go to the Sierra and pass to the west of Lake Tahoe. Continue all the way to Mt. Whitney. Frequency 20%.

Blue –

Or, from Patterson go to Potato Pk, then cross to the Sierra. 10%.

Blue –

Or, from Mt Rose pass on the ridge east of Lake Tahoe. Frequency 10%.



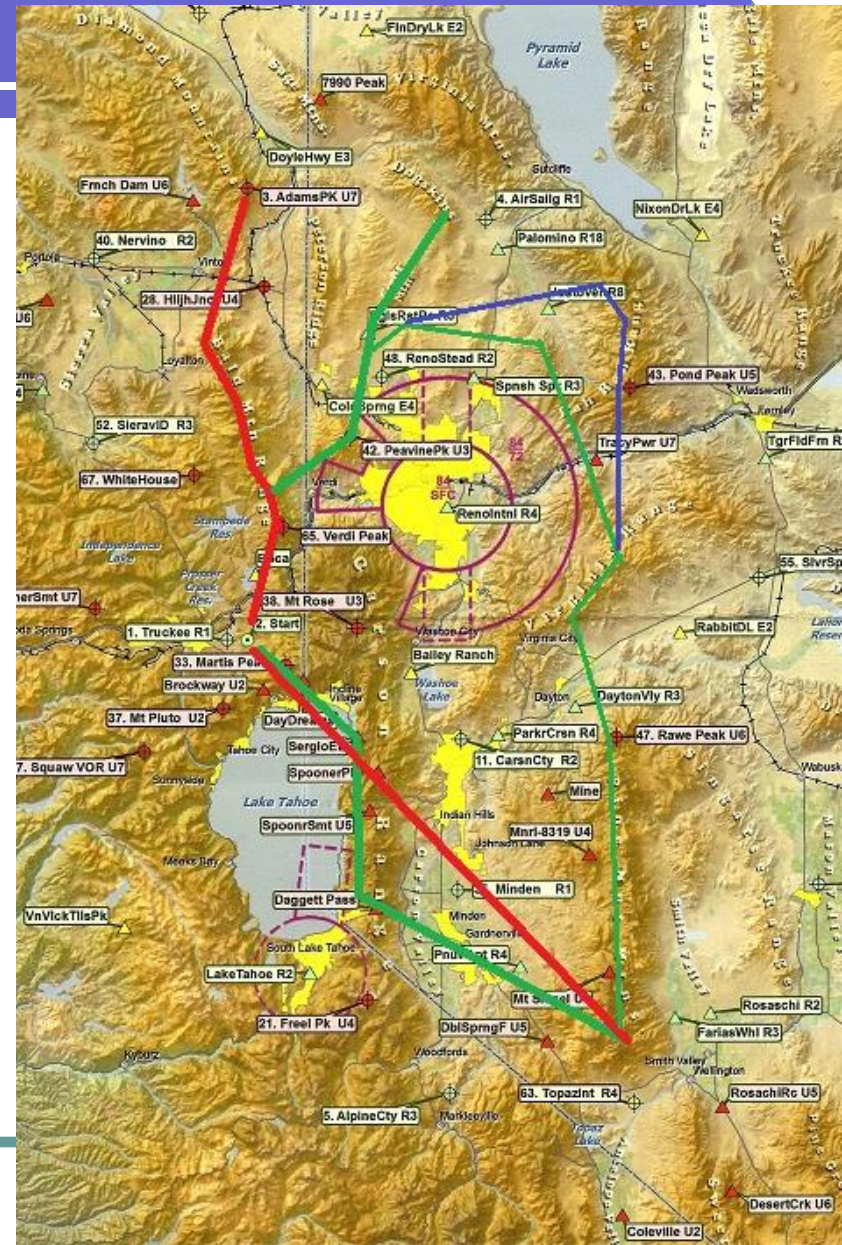
Back to Truckee from the North

Red –

From Adams Pk cross to bowl on the ridge east of Loyalton, then continue to Verdi Pk

Green –

From around Air Sailing, get to the Dogskins, then Peavine, then Verdi Pk



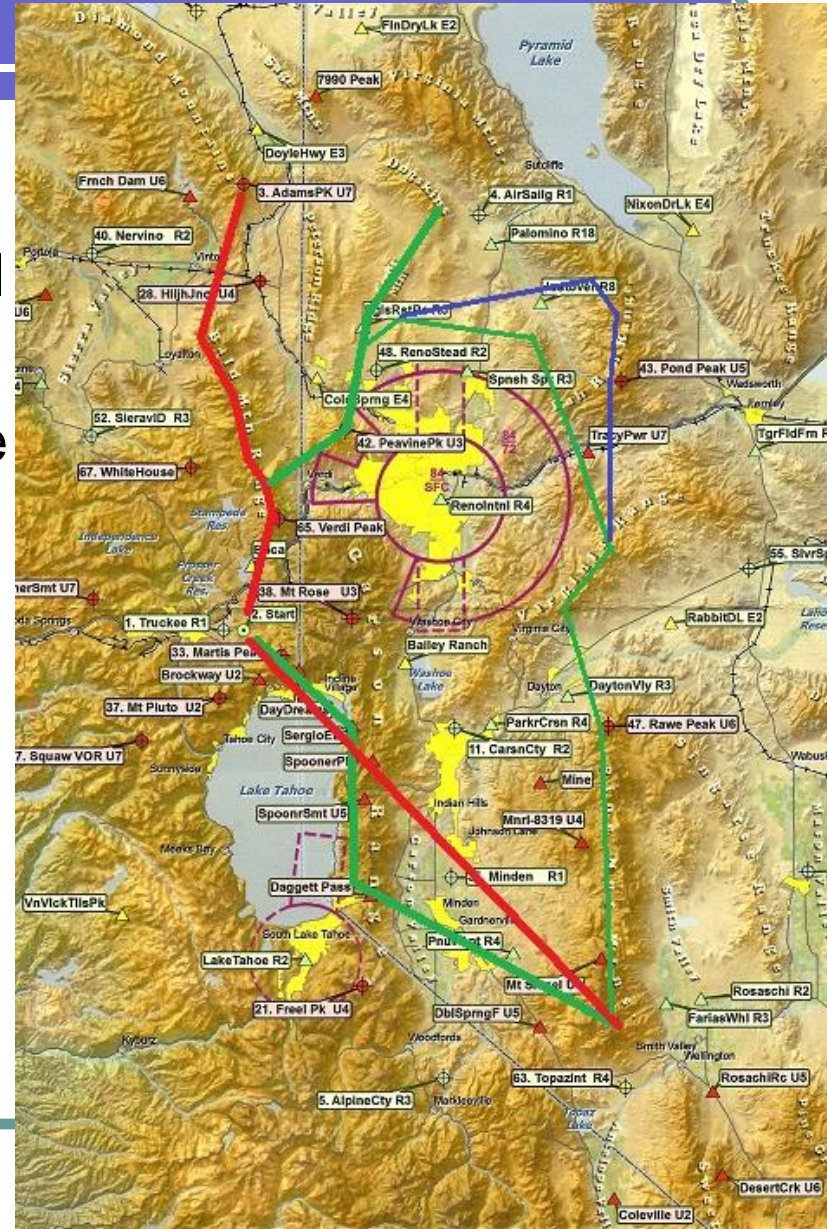
Back to Truckee from the South

Red - Go to the south end of the Pine Nuts (Bald Mtn). Get to final glide altitude, add 1,000'.

Thick Green - If not, try to get inside the Lake Tahoe basin and reach the Elevator.

Thin Green - Or, go to Air Sailing, then Peavine, then Verdi Pk.

Blue - Or Pond Pk, then the towers of Pah Rah Range.





Avenal

Morgan Hall

Duo Discus 5H

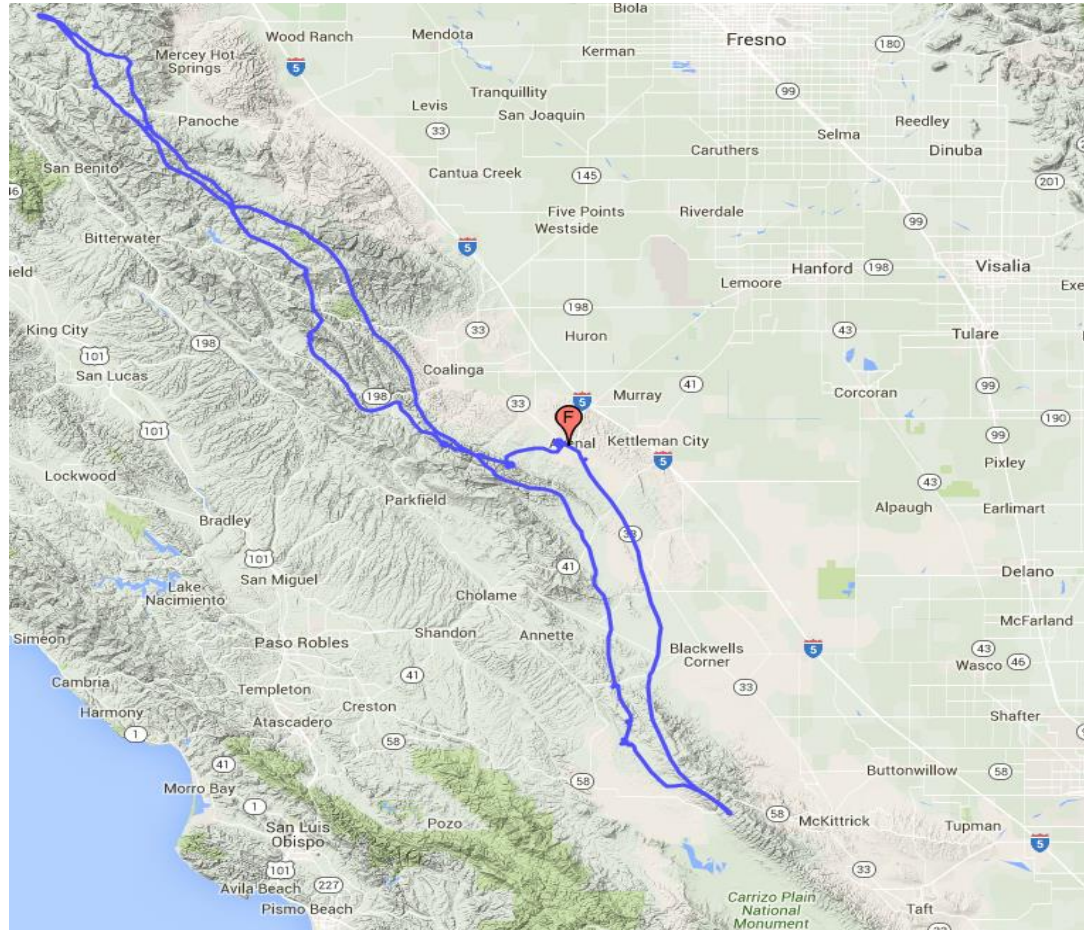
Hollister to Avenal: 81nm

Avenal to Santa Ynez: 84nm

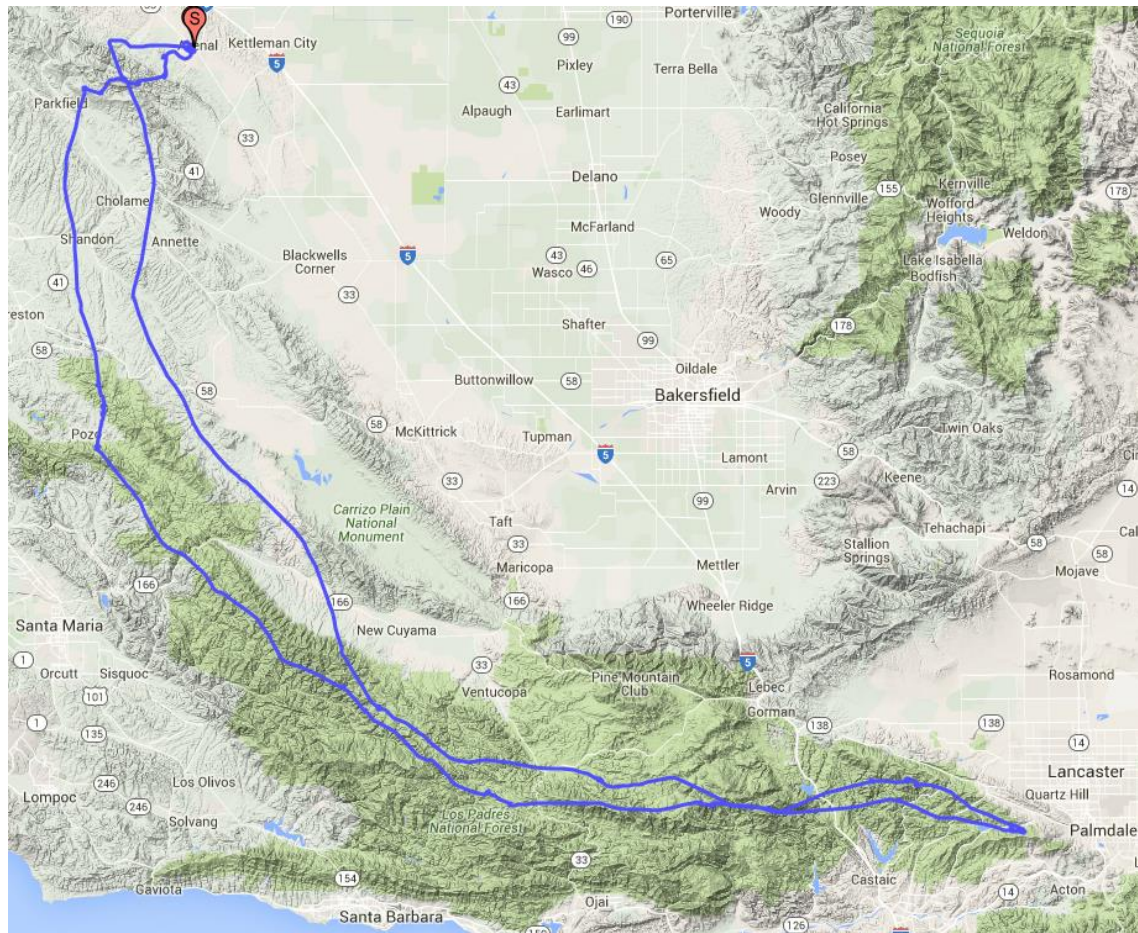
<http://www.soaravenal.com/>



Where can you go? Bay Area?



Where can you go? LA Area?



Convergence

- What is it?
- Dissimilar airmasses coming together
 - Seabreeze convergence
- Similar airmasses coming together
 - Techachapi shearline

Misconceptions

- Magical smooth line of continuous lift
- Vertical line of lift
- There are only thermals in the convergence
- You don't have to thermal in the convergence
- "The Convergence" singular

Reality

- Often just a line of “better” lift
- Meanders about
- Tilted
- Thermals are just stronger and larger
- Clouds may only be marked along the line

Where?

- Moves throughout the day.
- Generally along ridgelines and across valleys
- Pushes east throughout the day.
Typically.
- Is where you find it.
- Hotter days, farther west.

How to find it?

- Clouds on the obvious days
- Dust Devils
- Surface winds. Will be nearly calm on the ground.
- Use ponds, smoke, haze, dust, tractors, birds, trees or anything you can to identify surface winds.

Using it

- Fly along the convergence line
- Thermals will be aligned and sometimes nearly continuous.
- Speed-to-fly, stop in the best lift only, avoid circling if possible.
- If there are clouds, don't leave the clouds.

Blue days

- The convergence is often blue
RH<50%.
- It's still there. May only be 200ft
across.
- Fly by braille.
- “Drunk” flying
- Subtle course corrections back and
forth across the line

Cloud Days

- Enjoy the visuals
- Look for shelves in cloudbase. Fly the higher side.
- Best lift will consistently favor one side of the clouds. Usually the upwind side at alt.
- Jellyfish clouds on the marine side
- Often can get above cloudbase

Jellyfish Clouds, Shelf Clouds



RASP

- avenal.raspmaps.com
- Hcrit – flatland top of lift
- BL Top – mountains and convergence top of lift
- BL Max Up/Down – the yellow brick road



PASCO

SOARING

Pacific Soaring Council, Inc.

A non-profit volunteer organization serving glider pilots in Northern California and Nevada



Williams Soaring

www.williamssoaring.com

Peter Deane "2T"



Flight Trace Replay

Example flight
Williams – Yreka – Return
640km
Standard Cirrus.

Trinity Alps Convergence....

SeeYou
3D





Byron and Hollister

Ramy Yanetz



Planning

- Check the forecast carefully and frequently
 - NAM Blipmap very reliable for Byron and Hollister
- Be ready early. Timing is everything.
- Choose best route for the forecast
- Look for unusual soaring conditions and landout options to plan new routes and unusual flights
- Contingency planning, be flexible.
- Be prepared for landout, carry spot/Inreach
- Plan according to forecast, fly according to weather

Check forecast

- NWS Forecast discussion
 - <http://www.wrh.noaa.gov/mtr/forecast.php>
 - Area forecast discussion (click on AFD)
 - Zones: Diablo Range and Mountains of San Benito
- NAM blipmap most useful and reliable parameters:
 - BL Top, Cu Potential, Cu cloudbase
 - Total cloud cover, BL Wind
- RASP most useful and reliable parameters:
 - Convergence, Average H-Crit/BLTop , Wave parameters

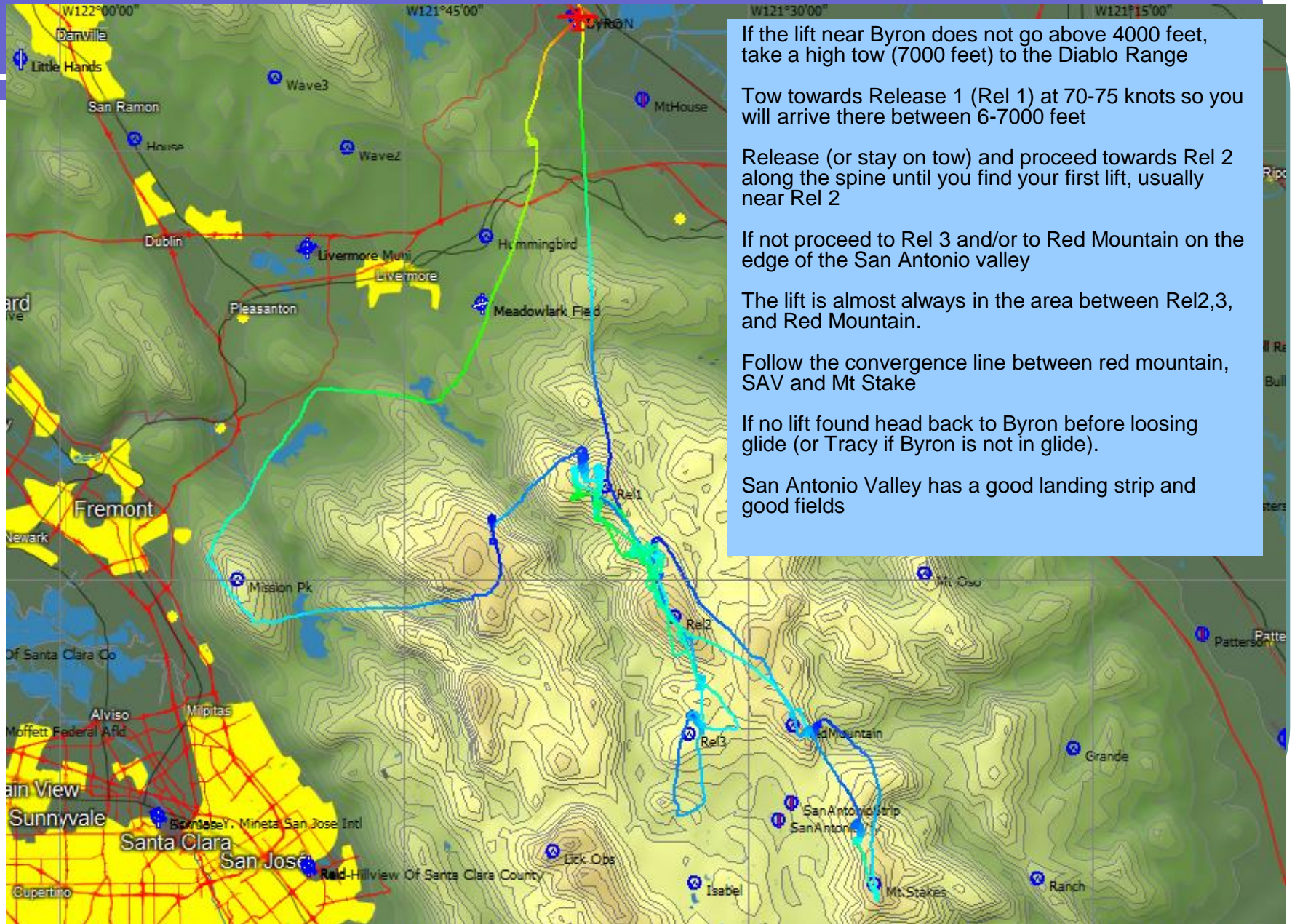
Forecast (Continued)

- Less useful parameters for Byron/Hollister area and common mistakes:
 - Thermal updraft velocity
 - NAM Cu Cloudbase for Cupot > 0
 - B/S ratio
 - Using RASP instead of NAM
 - Fix color instead of classic color
 - Not looking at the whole picture

Byron Soaring Potential

- In post frontal conditions (typically from Feb to May) the lift is accessible from local low tow and marked with 4000-6000ft cloud bases, providing XC routes to any direction
- Great and consistent soaring conditions are only 20 miles away along the Diablo range convergence from March till October
 - Often marked with clouds over the San Antonio Valley, persists all day with typical altitude of 6000-8000, occasional 10,000 feet (highest 13,500!).
 - Easy glide back to Byron or Tracy from 6000 feet.
 - Often requires 20-25 miles 6000-7000ft tow to Rel 1,2 when local lift not presents (20-30 min tow plane round trip)

Diablo Range/SAV Release Area



If the lift near Byron does not go above 4000 feet, take a high tow (7000 feet) to the Diablo Range

Tow towards Release 1 (Rel 1) at 70-75 knots so you will arrive there between 6-7000 feet

Release (or stay on tow) and proceed towards Rel 2 along the spine until you find your first lift, usually near Rel 2

If not proceed to Rel 3 and/or to Red Mountain on the edge of the San Antonio valley

The lift is almost always in the area between Rel2,3, and Red Mountain.

Follow the convergence line between red mountain, SAV and Mt Stake

If no lift found head back to Byron before losing glide (or Tracy if Byron is not in glide).

San Antonio Valley has a good landing strip and good fields

Suggested Tasks from Byron

- Silver Badge straight out: Byron to Hollister (100km)
- Byron – Pacheco pass – Byron (yoyo): 100 miles
- Straight Out to Avenal: 240km
- Gold Badge:
Byron– San Benito Mtn (EL4) – Byron: 230 miles (300Km gold dist)
- Diamond Badge:
Byron – Hwy41 (South of Avenal) – Byron: 324 miles (500km diamond dist)
- Byron – New Cuyama – Byron: 450 Miles (700km)
- Byron – Williams/Goat - Byron

Suggested Routes from Byron

- North to Mt Diablo and across the delta to Williams only on unstable post frontal days, otherwise poor lift (less frequent)
- Best and most common route south along the Diablo range
- Often strong convergence marked with clouds over the highest terrain over SAV
- When above 7K you can go in the middle, if lower move towards the east side.
- When below 4000ft stick to the foothills and Hwy on the east side
- Plenty of places to land on the east side, airstrips every 10-15 mls
- Unless clouds indicate otherwise, stay towards the east side away from the sea breeze when crossing the Pacheco pass.
- Avoid flying too far west or east of the convergence line

Byron Wave

- Byron wave season Nov-April
- Pre frontal wave is best during the hours before the onset of rain with increasing SW winds.
 - Pre Frontal Wave can be found anywhere between Byron and Los Vaqueros reservoir
 - Often marked with Lenticular clouds or fohen gaps
 - XC potential north to Williams and back
- North wind wave usually during high pressure off shore wind events
 - Requires NNW-NE winds above 20 knots at Mt Diablo
 - Usually not marked by clouds
 - Wave typically weak (1-2 knots) and very small area (less than 1 square mile) near Wave1 (Diablo) and Wave3 (Los Vaqueros towers)
 - Typical altitude 12-18K
 - XC potential: North up wind to Napa and Clear Lake, south downwind to Big Sur and beyond

Unusual Flights

Bay Tour in north wind wave

- **15K-18K altitude**
- **Well above class bravo**
- **SF, GG Bridge, Mt Tam, Point Reyes, Half Moon Bay**
- **Within glide to Byron nearly the whole time**

Wave Bay Tour 2012 – North Wind Wave

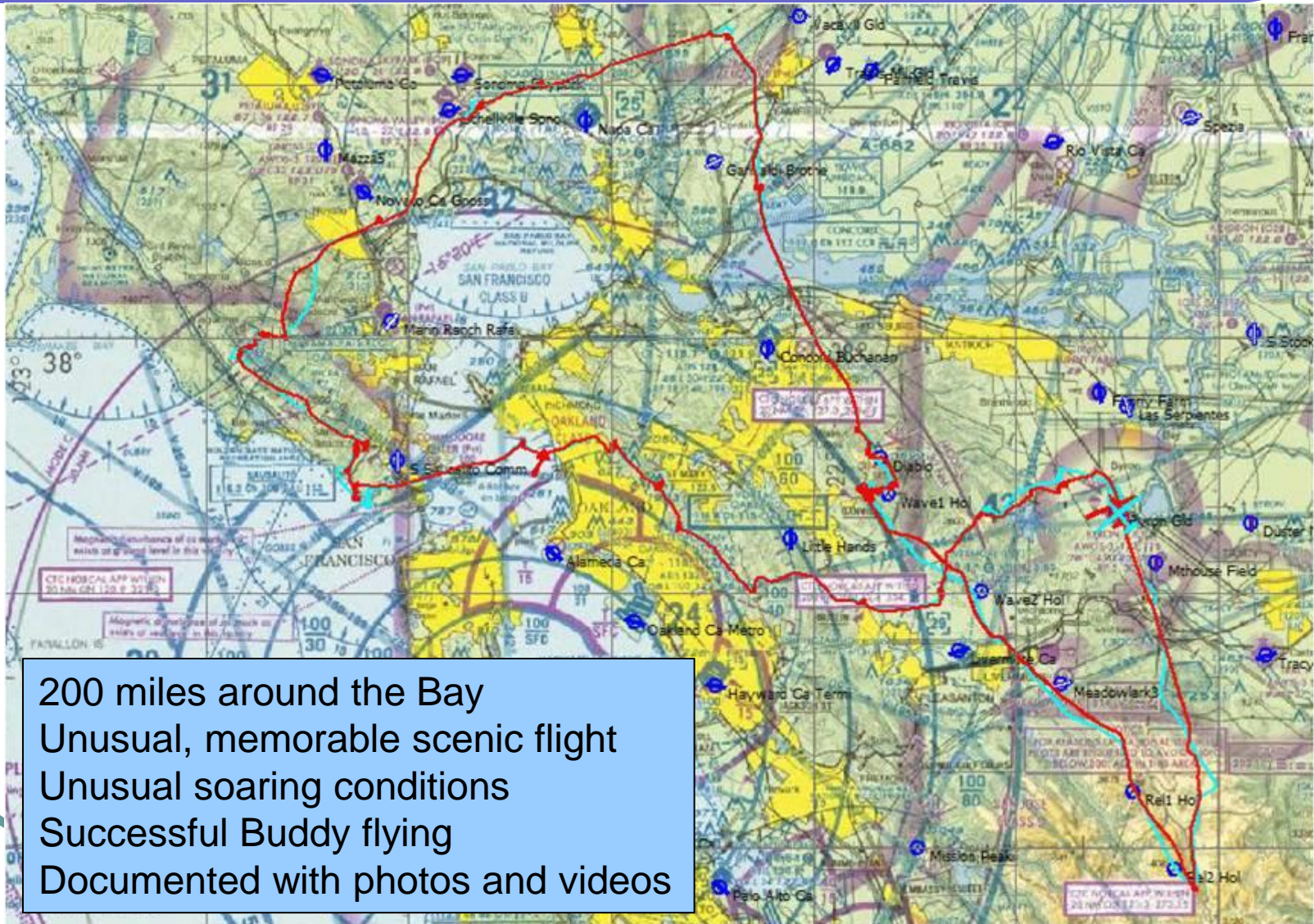


Bay Tour Feb 2011

- 200 miles around the Bay
- Unusual, memorable scenic flight
- Unusual soaring conditions
- Successful Buddy flying
- Documented with photos and videos



Bay Tour Feb 2011



200 miles around the Bay
Unusual, memorable scenic flight
Unusual soaring conditions
Successful Buddy flying
Documented with photos and videos

Byron to Warner Springs (crewless)



Byron to Warner Springs (775km) and return back to Byron the next day after an overnight at San Diego

Hollister Routes

- Tow to “Release Ranch” 15 miles from Hollister and release at 6000 ft AGL
 - Local tows work in post frontal conditions
 - Tow to Henrietta/Tin Roof on off shore days
- Glide to first lift at EL1 or Chemise based on convergence forecast
- continue and connect the dots to EL2, EL4/5, Center peak, Lookout, Black/MW towers/EL7
- Altitude in the convergence commonly 6-10K and usually marked with clouds

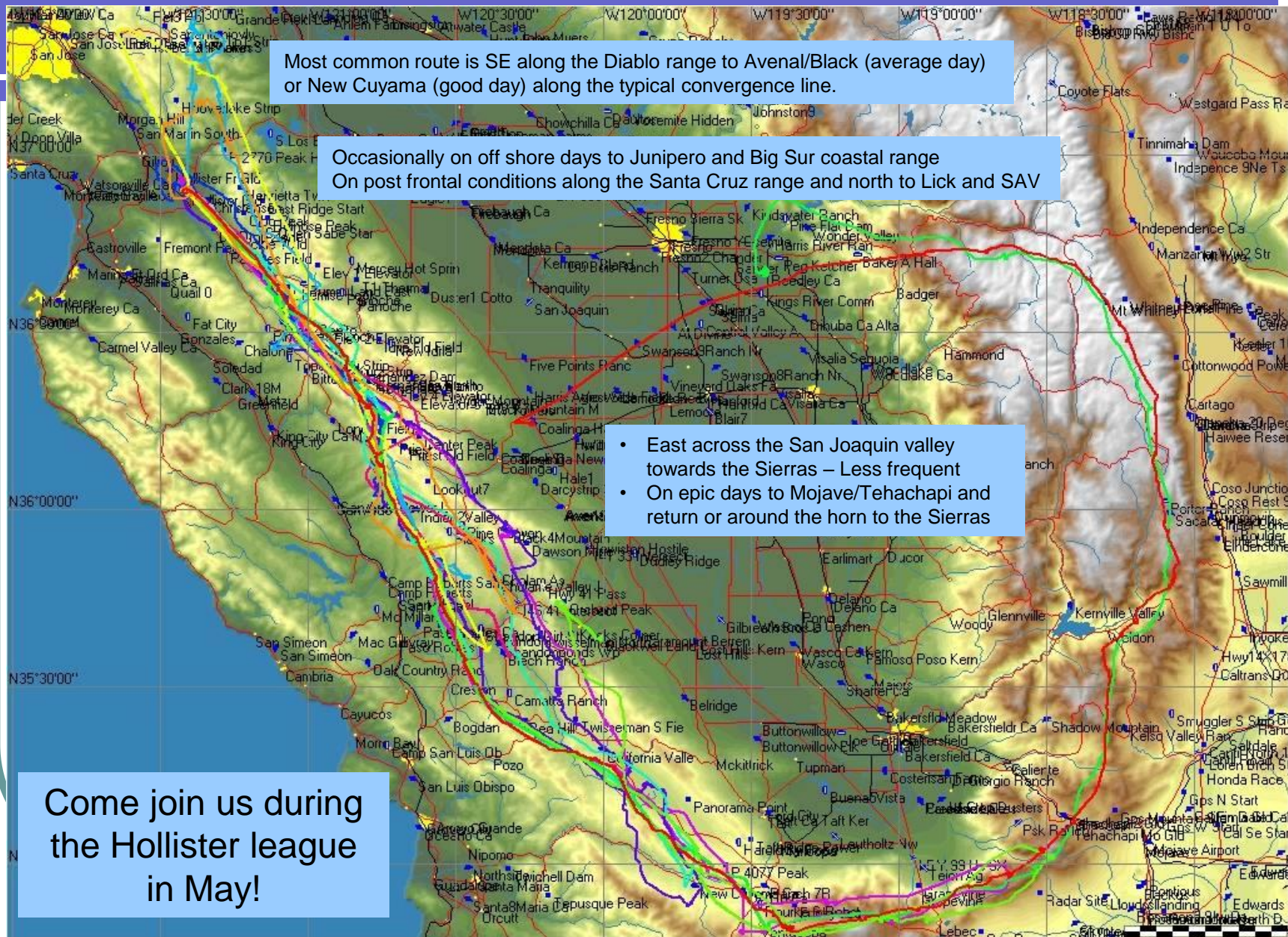
Typical routes from Hollister

Most common route is SE along the Diablo range to Avenal/Black (average day) or New Cuyama (good day) along the typical convergence line.

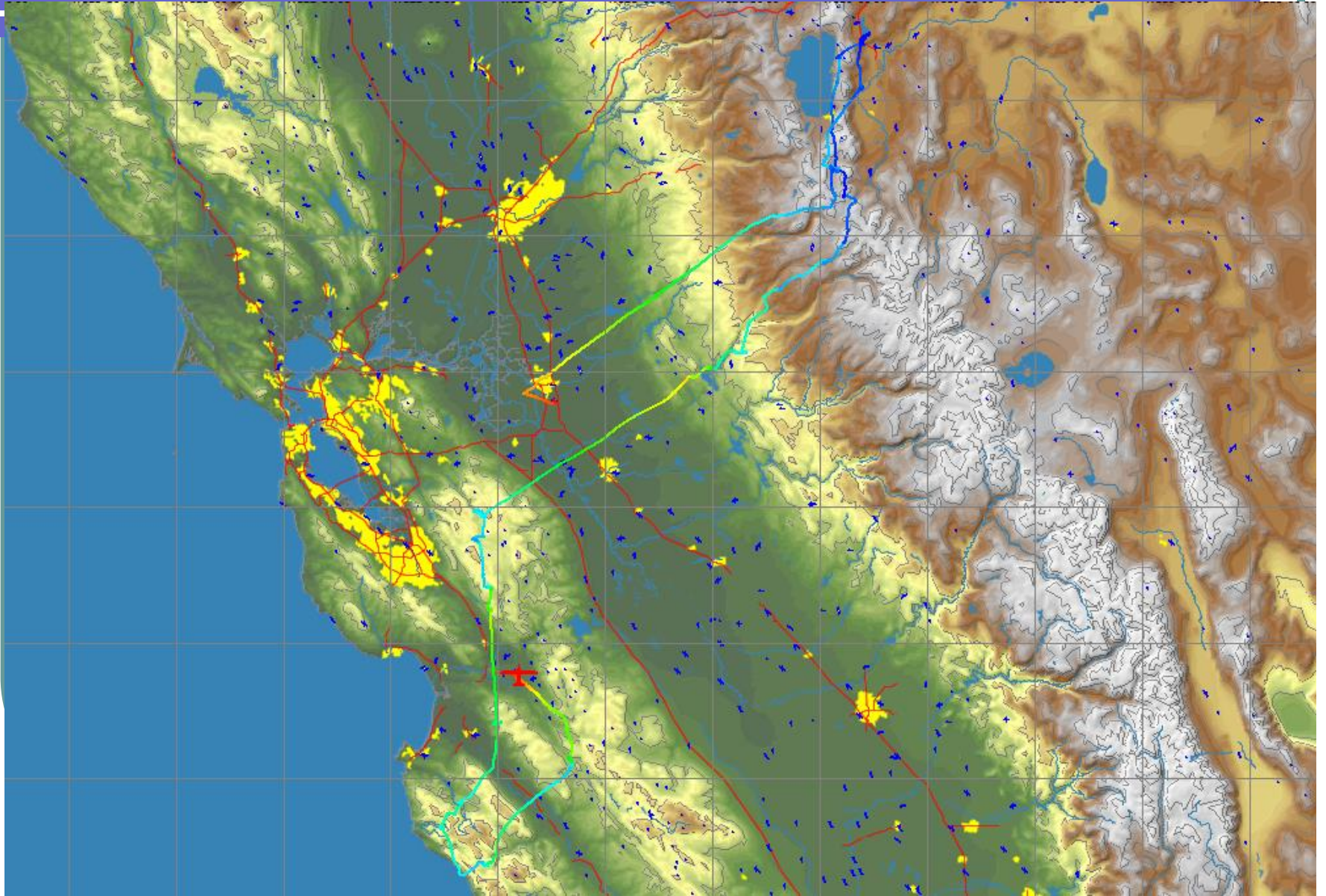
Occasionally on off shore days to Junipero and Big Sur coastal range
On post frontal conditions along the Santa Cruz range and north to Lick and SAV

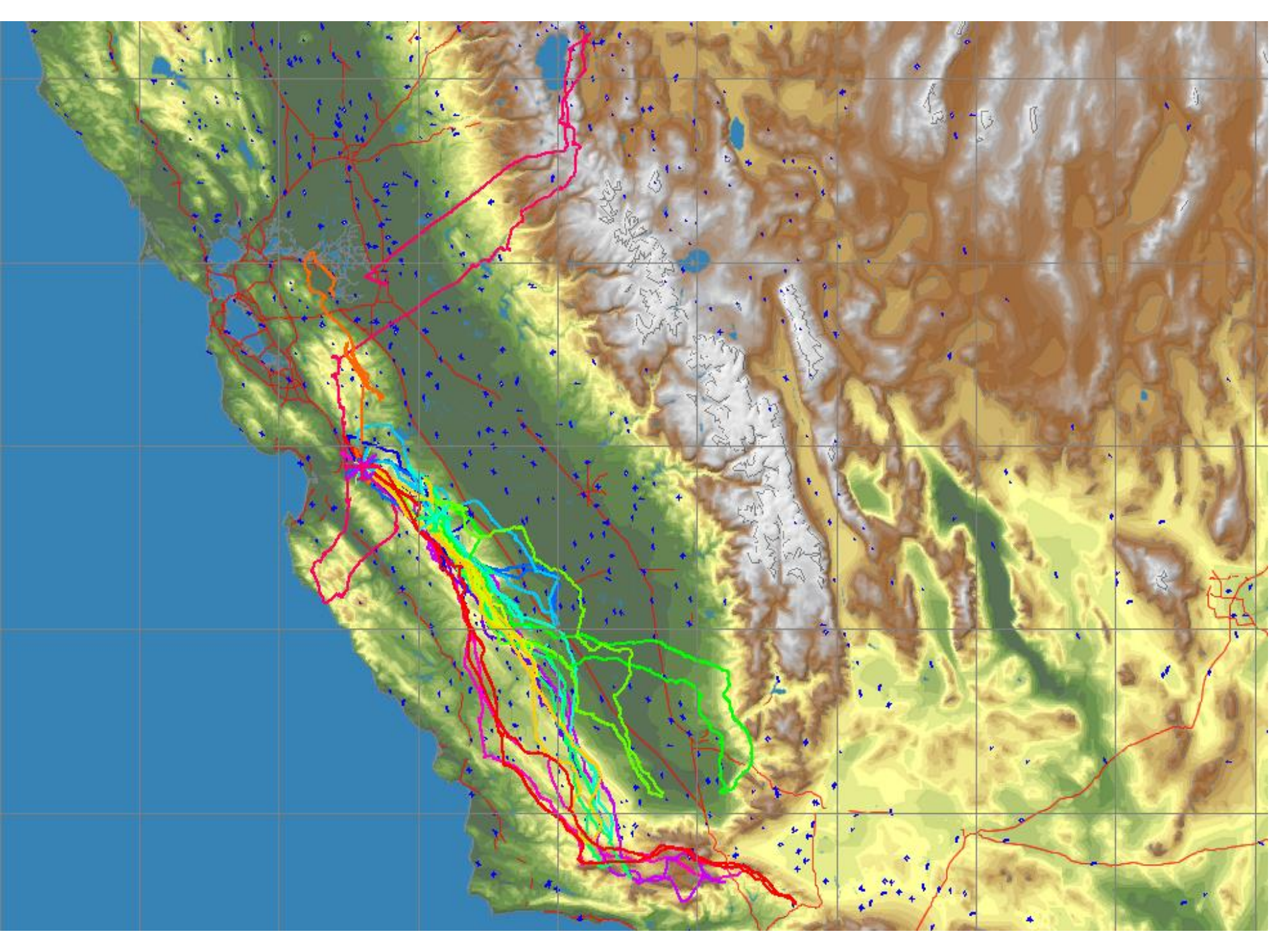
- East across the San Joaquin valley towards the Sierras – Less frequent
- On epic days to Mojave/Tehachapi and return or around the horn to the Sierras

Come join us during
the Hollister league
in May!



California/Sierra Double Crossing







QUESTIONS FOR THE PRESENTERS

