



## Southwest National Parks Grand Tour

## - Oren Cheyette

When my wife told me she would be going to Spain to walk a portion of the Camino de Santiago in April, I started thinking about what I might do with that time. Not one to look forward to two solo weeks rattling around in our house, I thought of doing some sort of flying tour. April seemed like an ideal time to visit the southwest, after winter storms and before summer heat and monsoons. I settled on several national park destinations with additional scenic stops along the way and nothing involving more than a few hours' flying on any day. I undertook the trip in a club-owned Dakota, N2337U (owned by One Niner Right, hangars on the Concord east ramp), basically a souped-up Piper Cherokee. With a 235 hp engine it makes 130 kts TAS at least up to 12.5K – the highest I got – and is fairly miserly on fuel. I might have taken NRI's 182 (348) with its new paint job, smoother engine and high wing better for sightseeing, but it needed some maintenance, so I went with the Dakota.

The fun quotient of this trip depended entirely on finding a chill traveling companion who would be up for long hours in the right seat, not afraid of the usual bumping around in a small plane (especially given the southwest itinerary with afternoon thermals) and up for hiking in the national parks. Fortunately, my semi-retired pal JT — who had previously joined me on a longish flying trip to visit a mutual friend in Port Townsend, Washington — was ready and enthusiastic for the adventure.

We planned an eight-day trip, adding a couple of extra days to the plane reservation for weather contingencies. This would be five days of flying and three days of visits to parks. We did need one of those weather days, and one of the flying days was short enough to give us two park days. We also mixed in some non-park destinations for breakfast/lunch stops in scenic spots. We did all of our longer

legs earlier in the day to avoid the thermals, but in the event the weather for most of the trip was very benign and the temperatures moderate so desert heat and monsoon thunderstorms were never a problem.

The trip took us over the Sierra Nevada both going and returning. I have been "over the hump" seven times now. (One planned return trip had forecast winds higher than my comfort zone over the mountains, so we returned around the southern route, over Edwards AFB through the restricted area, which is often open on weekends — hence the odd number of mountain crossings.) All seven trips have been over the Tioga Pass which has some 13k peaks nearby on the east side but has the virtue of being over a road and the wide-open Tuolumne meadow, as well as providing sights of Yosemite Valley. An alternate route for the same destinations is between the Friant VOR and Mammoth Lakes, but that one is wilderness all the way so has always struck me as a bit riskier. I fly the leg over the mountains at 12.5K and bring oxygen (which I used briefly outbound) but I haven't found it makes much of a difference to how I feel (or to my sight). Having skied at 11K and hiked at 14K I like to think my body can handle O<sub>2</sub>-sat in the high 80s without too much trouble but I might be fooling myself. The baro chamber experiments seem to show people getting stupid down around 65% sat. I use a fingertip pulse-ox monitor and keep an eye on my stats at that altitude.

We started early on Friday, April 19<sup>th</sup>. I picked up JT at 6:30 am and we were at the hangar around 7. AH had helpfully removed the rear seats from the Dakota, making it easy to load up our luggage and get underway. With light winds over the Sierras, we headed east towards Yosemite, climbing to 11.5K, then added an extra 1000 feet as we got into the mountains. Crossing the Tioga pass we descended towards Mono Lake and then made a sharp right to head south to Bishop, where we stopped briefly to refuel. At an elevation of ~4K at the northern end of the Owens Valley, Bishop has a high ridge to the east – the summit of the range is over 14K just to the north and the ridge to the south is over 9K. Fortunately there is a pass down around 6K just east of the Owens Valley Radio Observatory, whose large dishes are clearly visible. The climbout was slow, as the outside temperature was fairly high and it was difficult to keep the cylinder head temps low. Eventually we headed through the pass, through the Bishop and Saline MOAs, and on towards Las Vegas. There is very poor ATC radio coverage in the area (controlled by ZOA, ZLA, Joshua and further towards LAS by Nellis). Unless I'm misreading the VFR sectional, there's even a rare zone of G airspace up to ~10K at the northern end of Death Valley. Controllers were good about letting us know where they'd lose radio coverage and telling us where to try the next frequency if we did lose reception.

We continued at 11.5K over the LAS B, a bit south of the field. Controllers there left us alone with no diversions around traffic. Over Boulder we took a slight left to continue over the western end of the Grand Canyon, then turned to the southeast for Sedona, where we arrived a little before 1pm. Winds were light out of the southeast, so landing 21 was favored. But the AWOS recording and the canyon walls favor landing from the south, so that's what I did. It wasn't a great landing, and we saw most of the later traffic land south, including medium sized jets, so that's probably what I should have done. (We did see a jet landing south much too high on final go around, so it's not necessarily easy.) The Airport Mesa restaurant by the arrival end of 3 is very pleasant and we had lunch watching the rich seekers-of-enlightenment-from-the-vortex come and go.



Sedona airstrip on the downwind looking west after departing runway 21.

Our next stop was GCN, a towered airport about ten miles from the south rim of the Grand Canyon, on the edge of the town of Tusayan by the national park entrance. We wanted to overfly the Canyon on the way, and decided to wait until the light was steeper and redder and the shadows deeper, so we did a walk around the airport mesa – there's a hiking trail making a full loop just below the rim – before continuing. Taking off at 5, we flew east first to circle around the meteor crater near Winslow, then northwest past Flagstaff and over some cinder cones north of Humphrey Peak (12.6K), then crossed the Canyon twice, northbound in the Zuni corridor and southbound in the Dragon corridor. The GC is a "special flight rules area" (SFRA) where GA aircraft are excluded from large zones, permitted only in narrow, roughly N/S corridors at specific altitudes.

GCN has an FBO that mainly caters to the canyon tours, but they were friendly and helpful. The canyon shuttle service from Tusayan to the park only runs in the summer starting in May. The only car rental in the area is the FBO manager/owner who rents his own cars at an astronomical price. We found a place to stay and walked about a half mile north along the road into town to our hotel. The town is just a mile long strip of hotels, tour businesses and restaurants. The park entrance is a couple of miles further.



Grand Canyon overflight

The next morning, we walked back to the airport to pick up our exorbitant car rental at the FBO. (We didn't want to pay for two days at the ridiculous price.) We headed into the park, parking near the South Kaibab trailhead and hiking down to Tip Off point, where we rested & had lunch before returning up the trail. The elevation change is about 3,300' and it was warm, so we were glad to have each brought about 1.5 liters of water, which we consumed entirely before getting back to the rim. On the way back up JT recognized the son of a friend on his way down – small world.

We got an early start the next day, back at the airport by around 8 to drop off the car and get in the air. GCN is very close to the GC SFRA, so we flew a few miles southwest and circled to gain altitude from GCN's 6K elevation to the 11.5K required for the Dragon corridor northbound. Crossing the canyon again, we continued along the Marble Canyon sector (where the GC widens to a broad upper elevation about 2000' below the rim with the river in a narrow canyon in the middle another 1500' down). There is an airstrip up near the north end (L41) with a narrow bumpy runway and a cheap lousy restaurant across the road from the apron. I landed there with C a few years ago and didn't need to repeat the experience. Instead, we continued to Page, getting good views of Horseshoe Bend and the Glen Canyon dam before landing at PGA.



Horseshoe Bend

There are three FBOs at PGA. We stopped in at Classic for a top-off and use of the clapped out but functional crew car, which got us to both the Glen Canyon dam overlook and then to Horseshoe Bend, where we joined the throng on a one mile walk to the rim. It's as dramatic in life as in the many iconic photos, with the river over 1000' below the rim.

Continuing east, we flew over Lake Powell, then on to Monument Valley straddling the Utah / Arizona border. The site of 1940s and 50s westerns, as well as images of the Marlboro Man, the eroded sandstone formations are instantly recognizable. Gouldings Lodge has an airstrip, restaurant and motel near the site. The airstrip is private, but they just ask for emailed proof of insurance before you land there. It's north/south, lying just north of a mesa topping out 700' higher, so you pretty much have to land south and depart north. After flying around the formations for a bit, we came in from the east to land. The airstrip is very narrow (40' wide) and between unfamiliarity and the narrow-runway-height illusion I was pretty sure we were high, so I did my only go-around of the trip, landing comfortably on the second try. There is a paved apron at the south end, near the facilities, but they reserve that for tour planes, so we parked on the adjacent gravel.



Airstrip at Gouldings Lodge, Monument Valley

From the airstrip it's a short walk uphill to the decent diner with fantastic views. Returning to the plane after lunch, we pushed & pulled it off the gravel (to avoid flying rocks when we started the engine), then continued our trip toward Cortez (CEZ), in the Four Corners area near Mesa Verde NP.

On landing, we picked up a rental car waiting for us at the FBO. JT had reserved a small SUV, but the rental co had "upgraded" us to an enormous Toddler Krusher<sup>TM</sup> truck, the sort where you can't see anyone shorter than 5' in front of the hood unless they're fifty yards away.

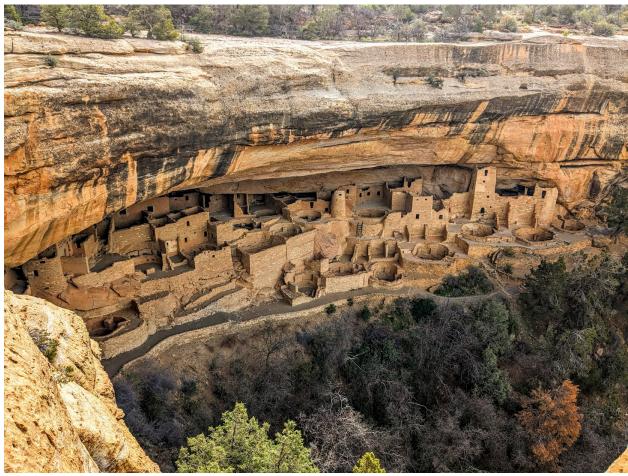


JT with the Toddler Krusher™

We booked ourselves in at the Ute Mountain Casino, a tribal hotel/casino about 15 miles south of the town. The hotel had a nice pool and hot tub, both of which were great after the day of travel. They also had a single poker table, which on this Sunday afternoon was populated by four or five locals – all of

whom knew each other and the dealers – playing limit Omaha, high-low or high-only chosen by the button. The game was pretty wild with most of the table seeing most flops and often continuing to the turn and river with longshot hands. I played conservatively (I thought) and managed to lose about \$60. JT won a couple of hundred dollars. The whole Ute reservation is dry. Wanting a beer with dinner we went back up to Cortez – late – and found most places closed but a decent Mexican place on the main drag open.

Monday morning we headed off to Mesa Verde, an area of mesas and canyons with remains of long-deserted Puebloan settlements similar to those in Chaco Canyon and Bandelier – villages built in canyons and up the sandstone walls. The ones at Mesa Verde are particularly striking, with large clusters of stone structures set high into cliff walls. You can see them both from above, at overlooks along the mesa, or up close on a hike into one of the canyons from the visitor center. These things are in cliffsides hundreds of feet up from the valley floor and below overhangs. The people there must have had great quads and no fear of heights.



Mesa Verde

Returning to the hotel, we drank some beers that we'd smuggled in, carefully hiding the evidence, had another soak and played some more cards (hold'em, I lost again, JT won again). Then I started looking at the weather for the next leg. I wanted to stop in at Telluride (TEX) en route to Canyonlands (CNY).

Telluride is the second highest airstrip in the country, at just over 9K. The airport is up on a mesa in a west facing canyon. It's quite long (over 7K), so landing with a tailwind and high TAS is no problem. The weather looked promising for the next morning – light winds and moderate temperatures.

Once again, we got an earlyish start. My log shows the airplane moving at 8:01 am. The flight was short, just 65nm. We climbed to 11.5K and cut the corner on the mountain shoulder that forms the southern edge of the Telluride canyon. One could enter the pattern here but given the nearby mountains it seemed like straight-in was the thing to do. Winds were light as predicted and there were no squirrely up- or down-drafts coming off the sides of the mountain. The view of the airstrip on the approach is dramatic, as it sits on a mesa jutting out from the valley floor to the east. Here's the Google Earth view.



Telluride airport (Google Earth screenshot)

The folks at the FBO were friendly and helpful, and we got another crew car to go into town for breakfast. The town was quiet, as it was shoulder season between the lifts closing and the summer festivals. We were told that had we come two weeks earlier we would have found almost all the restaurants closed.

After a stroll around the town, we returned to the airport and headed for Canyonlands (CNY), about 100 nm to the northwest. The takeoff roll at 9K was **very** noticeably sluggish, but with all that runway I wasn't worried. Once airborne the ground dropped away as we came back over the western edge of the mesa. In the image above you can see the light gray square of arresting material designed to keep a

failed takeoff from turning into a nosedive off the edge. After getting out of the canyon we turned further north to pass by Grand Junction and over the Black Ridge Canyon wilderness. This took us up towards a very rugged landscape northeast of Moab, where the Colorado and its tributaries have cut deeply into the terrain. The snow-capped Mt Waas and Peale form a striking backdrop to the stark scenery. I appreciated that I was using GPS as we flew past Mt Waas.<sup>1</sup>



Somewhere east of Arches NP, looking south.

Approaching Canyonlands airport, we heard a jump plane announcing skydiving on the CTAF. We curved well to the south thinking that would provide plenty of time before we entered the pattern. After hearing the jump plane land I figured we were good to go. But when we were about 3 miles out the jump plane told us there were still jumpers in the air. I'm a little mystified at how he landed before the jumpers – emergency descent maybe? – but anyway we peeled away sharply, only to have him sheepishly come back on and say they were already almost on the ground. After that the landing was routine. We parked at the FBO, picked up another car and headed into Moab where we found a cheap but adequate hotel along the main strip. The town sits at the foot of a mesa running several miles NW-SE but only about four blocks wide. Like Tusayan at the Grand Canyon, it appears to be sustained almost entirely by tourism, though there is some odd project near the park entrance involving covering over uranium mine tailings.

<sup>&</sup>lt;sup>1</sup> Dumb joke for instrument pilots only.

Arches NP is more aptly named than I had realized. It's a surreal landscape similar to Bryce Canyon (with its hoodoos), plus arches. Lots of arches. We had plenty of time for several hikes in the afternoon, and then a long (8 mile) one around Devil's Garden the next day. "Delicate Arch" is on one of the standard Utah license plates. This is one park I would be happy to visit again, though not much after April. Even though the longer hike didn't involve that much elevation, we still each needed well over a liter of water.

The FBO ramp rat had suggested that we visit Druid Arch in Canyonlands, which was tempting because <u>druids: no one knows who they were or what they were doing</u>. But it turned out to be almost a 2 hr drive to the trailhead, so we did Devil's Garden in Arches instead.



"Park Place" at Arches NP

On Thursday morning we headed for Vegas. I'd been watching the weather forecasts which had been consistently showing a storm coming through California and Nevada on Friday. Now some of that weather looked like it might show up earlier. I was able to get MIA/MVA maps from github, where some Bay Area flyer and programmer has posted python code and current FAA XML maps translated into KML.<sup>2</sup> These can be imported directly into Foreflight, so I could pick out a VFR route that would allow me to get an IFR clearance if needed at reasonable altitudes (preferably below 12K). Our slightly indirect route headed most of the way back to Page before turning west towards Henderson (HND). We flew over the northern portion of Lake Powell avoiding some higher ridges to the north. There was cumulus around 12K or a little higher, with some virga. Cruising along at 10.5K we watched the autopilot constantly retrimming to maintain altitude as we hit up- and down-drafts.

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<sup>&</sup>lt;sup>2</sup> You can find the maps here: <a href="https://github.com/dark/faa-mva-kml">https://github.com/dark/faa-mva-kml</a>. After importing they show up as a map layer in FF.



Delicate Arch, Mt Waas in the background.

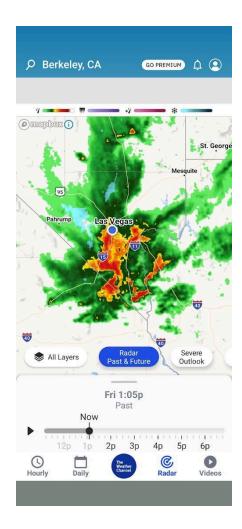
Crossing into Arizona with the clouds getting thicker and after flying through some green and yellow on the Nexrad map, we saw an approaching wall of rain. I could probably have descended to keep ground visibility, but instead I got a pop-up IFR clearance to take us through what turned out to be a pretty mild (cold?) front. After getting through the rain, the sky was completely clear and I canceled IFR. Nearing LAS we were cleared into the Bravo and vectored around to the southeast. We stayed high until we crossed a ridge between Boulder City and Henderson (imaginatively called "The Ridge" and topping out over 5K), after which I chopped and dropped to get down to Henderson at 2500'.



A northern tributary of Lake Powell.

HND is a busy GA airport with lots of jets parked on the ramp. I had been in touch with a ski buddy (SH) who lives there (working in what they euphemistically call "gaming") and who came out to the FBO with his boss to meet us. The boss owns a C210 parked at HND and likes the café above the FBO so that's where we had lunch. The boss was very interested in the aviation details of our adventure and shared his favorite destinations, which included Big Bear – a bit far from the Bay Area but one I'd like to visit.

After lunch SH drove us up to the strip, where we'd decided to stay at the Treasure Island casino/hotel. It was fine. The crush of tourists and hucksters on the strip is not pleasant, but we found a hold'em tournament that afternoon, followed by our regular Thursday "home" game (online and with the help of zoom). We had planned to return home the next day, Friday, but the forecasts had been showing lousy weather that day, with rain, possible thunderstorms and possible lower-level icing. The forecasts stayed consistent, and Friday morning – despite a strong temptation to get out early (before the worst of the storm hit) and take a southerly route around the Sierras – the combination of predicted strong surface winds and possible T-storms motivated us to wait a day. Below is what we saw on weather radar early in the afternoon while we played in more hold'em tournaments and cash games. SH met us that evening and took us to a reasonable and very good bbq place in an alley across from Caesar's.



## Weather radar on Friday the 26th

By Saturday morning the storm had moved through, the weather was clear, winds over the Sierras were again light, and our tie-downs still secure. We took off, almost retracing our route from Friday a week earlier. On climbout from HND we got a Bravo clearance without asking, but were then immediately given an urgent turn and eventually a 360 by the controller when we had apparently turned into one of the arrival paths. After that minor excitement the rest of the flight was routine, past Death Valley, Bishop, Mono Lake, over the Tioga Pass and Yosemite. Except for some slight adjustments near Bishop, we stayed on the programmed route and the AP handled everything. All I had to do was keep the fuel balanced, monitor the CHTs and occasionally change frequencies. But the scenery is spectacular and I wasn't bored. We crossed back into the central valley and were on the ground in Concord before 1pm. The 3.5 hours of flying used only about half the fuel aboard. Drinking neither coffee or tea before we launched helped too.

Total trip: 9 days, 2365 miles, 17.5 hours on the tach.