

## 2023 trip to Hanford and LIGO

I started this trip with a stop at Manzanar to see the reservoir after seeing the Huell Howser program on it.

<http://ikemi.info/Graphics2023/ManzanarReservoir2023/index.htm>

Continuing north my next destination was Mono Lake. This time I stopped there when the visitor center was open, which made a big difference. Besides the exhibits, I was also able to learn about the resources and trails around. There's a nice trail into Lee Vining where the Old Schoolhouse Museum is entertaining. Huell Howser also visited:

[https://www.youtube.com/watch?v=OgG7F\\_oHu1E](https://www.youtube.com/watch?v=OgG7F_oHu1E)

Per the directions I received, I drove down to the visitor kiosk and was able to go on a guided tour where I was the sole guest. Learned about the little critters that live in the Lake.

There's the Panum Crater you can visit, but the road looked a little rough so I decided to save that for another day.

<http://ikemi.info/Graphics2023/MonoLake2023/index.htm>

At the visitor center I learned about Bodie State Historical Park, among other things, so I headed there. This is an entire ghost town in reasonable condition that you can explore.

Fun place to visit.

<http://ikemi.info/Graphics2023/Bodie2023/index.htm>

On the way to visit my cousin I stopped at the Dangberg Historic Ranch and Mormon Station. Across the street is the Courthouse Museum. All interesting to visit if you are in the area.

[Mormon Station and Gena](#)

Next was a revisit to Tule Lake Camp and Klamath National Wildlife Refuge. The camp you can only photograph from the road, so I made use of my tele lens. There is now a visitor center for the Separation Center, but I managed to arrive on a day when it was closed. The Wildlife Refuge is in bad shape. Just like last time, it was dry again except worse. At the visitor center, which was open but in the process of moving, I learned that the refuge depends on runoff from the farms. However, the irrigation has become more efficient and there is almost no runoff in spite of the rainy year. I can only remember when I first came here when it was still wet and there were big flocks of birds

[Tulelake](#)

Another serendipitous find was the Collier Logging Museum. Mostly outdoor displays, a lot of them, and a little museum and gift shop. Well worth the stop

[Collier Logging Museum](#)

There are rest stops and then there are rest stops. The Crooked River Bridges area should be a state park. The views are amazing considering that you were only looking for a bathroom. The bridges are educational since they just kept building new bridges without removing the old ones. So, you can see the history of bridge construction there. By all means stop here whether you need to heed nature's call or not. Nice lawns and paths, too.

#### [Crooked River Bridges](#)

One of the main goals of this trip was to visit Hanford Reach and learn about this aspect of the Manhattan Project. A good starting point is the Reach Museum. This slightly schizophrenic museum covers both the natural wonders of the area as well as the history of some the reactors built in the area. Actually, the two are tied together. Radioactive contamination from the reactors kept this portion, or "reach", of the Columbia River from being dredged or dammed, or developed beyond the nuclear establishments. Same idea as Chernobyl, but not quite as lethal.

#### [Reach Museum](#)

To tour Hanford Reactor B, you need reservations. Waiting for my day, I did some exploring and had to visit Triton Park and Leslie Groves Park. Triton park is a small park with the sail (formerly conning tower) of the nuclear submarine Triton, not the famous WWII one. Like the submarine is surfacing out of the ground. Leslie Groves Park is a more conventional recreational park on the river without part of Leslie Groves buried in the ground.

#### [USS Triton Park and Leslie Groves Park](#)

The next day I headed to the visitor center in town to board the tour bus, after a coffee from across the street. Reactor B was used to produce plutonium for the Manhattan Project. It produced no power and all the energy produced ended up as waste heat pumped into the Columbia River by the now gone massive pump station. The huge reactor building is all that's left of the once sprawling facility. The visit included a couple of guided tours as well as free time to wander around. You can't wander around outside except to see the dedicated locomotive since it's supposed to be still "hot" around the site. For that matter the locomotive and its cars are still "hot" so you just look and don't touch.

In 2025 reactor tours are suspended due to construction.

#### [Hanford Reactor B](#)

There were identical D and F reactors and eventually a total of 9 production reactors. The other decommissioned reactors are stripped down and then cocooned in white.

[https://en.wikipedia.org/wiki/B\\_Reactor](https://en.wikipedia.org/wiki/B_Reactor)

Virtual tour at

<https://manhattanprojectbreactor.hanford.gov/index.cfm?tour=home>

The other major destination of this trip was LIGO, also within Hanford Reach. The fact that the Hanford Reach area is undeveloped and can't be developed makes it the perfect spot for LIGO. This was another trip which required advanced reservations. It was only 1 hour but well worth it if you are into gravity waves. The control room was included into the tour and pieces of

plumbing hardware are on display on the grounds. The small visitor center displays give you an idea of the history of attempts to detect gravity waves.

In the current budget at least half of LIGO will be defunded. There is an identical facility in Louisiana, but the 2 sites constitute an interferometer, so removing one will cripple the system.

[LIGO tour](#)

While driving to EBR-1 (to be described) the rest stops along the way tell the story of the Oregon Trail. I found myself stopping at every rest stop even if I didn't need to just to follow the story. A progressive museum, kind of like the one on the Alcan Highway.

[Oregon Trail as explained in rest stops](#)

Staying near Twin Falls, decided to check out Shoshone Falls. The size of the falls depends on how many generators are operating in the power station. I happened to hit it on a good day.

[Shoshone Falls](#)

Another planned destination was EBR-1 of Idaho National Labs. I had passed by the site on a previous trip when it was closed and my curiosity was piqued. After streaming history videos of the site I had to visit. This breeder generated electricity (a very small amount) and created plutonium for fuel. You can walk around and a docent can answer questions for you. There is a display on EBR-2, which was disassembled.

It's surprising how compact everything is. The control just about sits on top of the reactor.

You can find videos about EBR-1 on Youtube.

A bonus is in the parking lot and visible on Google Maps. There are the remains of 2 reactors from the nuclear powered bomber project. The bomber was never built but its hangar still exists, although it is still in use and off-limits to the public.

<https://inl.gov/ebr/>

[EBR-1](#)

Not exactly a stop but I passed through Arco which was the first town lit by atomic power. In a park on the outskirts of town is yet another submarine sail.

[Around Arco](#)

For a change of pace I took walk around Camas National Wildlife Refuge. There are still birds here.

[Camas National Wildlife Refuge and more rest sites](#)

Yet another unplanned stop was in Butte at the World Museum of Mining. I got there just in time to go on a tour, which included walking into part of a mine. Fun.

[World Museum of Mining](#)

A planned stop was at the Museum of the Rockies.

[Museum of the Rockies](#)

Not too far away was the American Computer Museum. Although tiny, it packed a lot of information into its displays.

[American Computer Museum](#)

Back at the Museum of the Rockies I almost missed the Living History Farm which includes docents dressed for roles on the farm; even a blacksmith, all female. Liked it almost more than the fossils.

[Living History Farm and more MOR](#)

I skipped Yellowstone but I passed near an entrance. From Butte on the skies were filled with smoke. I was told that it came from the Canadian fires. Not lovely.

I did stop at Heart Mountain.

[Heart Mountain](#)

I did blunder into Hot Springs State Park where I went on a nice hike. I skipped a chance to go for a dip. Reminded me of the hot springs I saw in Turkey at Pamukkale. Very interesting area. Also got to see Bison, from a safe distance with binoculars and my telephoto lens.

[Hot Springs State Park](#)

Back in town I came across the Wyoming Dinosaur Center which lives up to its name. A feature is that you can sign up to go on a dig. I skipped that part but there was plenty to see in the industrial styled museum. What luck!

[Wyominng Dinosaur Center](#)

It was quite a scenic drive up to Silverton in the Mountains. On another trip long ago I had taken the steam train from Durango to Silverton, but the stop was too short so I wanted to go back and especially see the museum, which was worth it. Jealous of all the hikers and backpackers taking a break in town. Of course went to see the train come in. When I took the train ride it was fun, but the smoke from the coal burning engine was nasty.

[San Juan County Historical Society](#)

Now for a very busy day around Santa Fe. First stop was the Randall Davey Audubon Center & Sanctuary to the NE of town. Went for a very nice hike there. Did no try to penetrate too far into the Canyon. I asked about Randall Davey and the docents were nice enough to take me into a room with some of his paintings. Indeed, the center had been his studio. Sorry, no photos.

[https://en.wikipedia.org/wiki/Randall\\_Davey](https://en.wikipedia.org/wiki/Randall_Davey)

Next I drove into town (not my first visit) and toured the extensive New Mexico History Museum. Also note the market outside.

<http://ikemi.info/Graphics2023/NMHistory2023/index.htm>

Next I revisited one of my favorites, the New Mexico Folk Arts Museum. I was lucky enough to see a special and very entertaining exhibit on Japanese Youkai.

<http://ikemi.info/Graphics2023/NMFolkArts2023/index.htm>

Last time I was there I didn't make it into the Museum of Indian Arts and Culture. This time I paid a couple of visits, bouncing back and forth between it and the Folk Arts Museum.

<http://ikemi.info/Graphics2023/NMIndian2023/index.htm>

Finally I visited the site of the DOJ Internment Camp where my grandfather was unjustly imprisoned, without charges, of course. He was first taken to Tuna Canyon near LA and then shipped to Santa Fe, just like they are doing now. The area is now a huge dog park, which is a better use of the land. There is the marker shown in one of my photos.

<http://ikemi.info/Graphics2023/SantaFeDOJ2023/index.htm>

The next day after a short jaunt I revisited the ABQ Biopark. I had visited this park during a business trip a few years back. The train between it and the zoo was gone. They told me it had burned up. Some of the areas in the park were closed for renovation, but the Japanese Garden was open and it had come a long way since I had last seen it. Also took in the aquarium.

<http://ikemi.info/Graphics2023/Biopark2023/index.htm>

A short drive away was the Zoo. Liked the penguins.

<http://ikemi.info/Graphics2023/ABQZoo2023/index.htm>

For adventure, I visited the large and wild Arboretum at Flagstaff. It is several miles down a dirt road. Took a long walk there.

<http://ikemi.info/Graphics2023/FlagstaffArboretum2023/index.htm>

Almost back to California, as a Charles Dickens fanboy I had to check out again the London Bridge.

<http://ikemi.info/Graphics2023/LondonBridge2023/index.htm>

Finally, I visited Poston and the site of the concentration camp (the term favored by Franklin Roosevelt) where my parents and their respective families were imprisoned.

<http://ikemi.info/Graphics2023/Poston2023/index.htm>

I visited the train station, which is industrial now and not open to the public, and a friendly railway worker said that the building is the original that had been there for 100 year. So, it was probably the same one my parents went through. The Colorado River Tribal Museum has a small corner dedicated to the Japanese American experience at Poston. The Colorado River Tribes have been very supportive.

