

## Ormand Family Activity

### January 2010: David's Trip to Utah

TOW and Javelin were designed to be anti-tank weapons, especially for enemies like Russia who used tanks. They worked pretty well against Saddam's tanks in the Iraq War, but now, the bad guys don't really use tanks; they hide out in caves in the Afghan mountains. When the commanders look at the stock of TOW and Javelin missiles they have, they think, "what do we have all this stuff for? We aren't fighting tanks. It isn't good for anything."

So the Close Combat Weapon Systems program office in Huntsville decided to do a training video, to teach Army commanders and NCOs that TOW and Javelin can be used for caves and other things, not just tanks. The video would be taken at Dugway Proving Grounds in Utah, which has mountains and snow and is otherwise similar to Afghanistan in climate and terrain. And I got roped into going along for technical support for the two-week long video shoot.

Dugway is part of a *huge* military reserve southwest of Salt Lake City and southeast of the Bonneville Salt Flats. It is also an Army base, so when I first went, I figured I couldn't bring my camera. Turns out this wasn't true; I just couldn't take my camera out to the range. So I really don't have pictures from the first week. I really don't have pictures from the second week, since we spent essentially all our time on the range. Hopefully I will get some professional photos from the project after Dugway clears them for public release.

### Dugway Experiences

**Monday:** I arrive in Salt Lake City with the Raytheon photo guys. We get our rental cars and meet up with the Business Development leader guy who had driven a van loaded with the camera gear all the way from Tucson. We go into the City to a RV rental place, where we rent two medium-size RVs to serve as shelters from the cold. Then we go to Sam's Club and stock up on refreshments for the next two weeks.

The first thing you notice when arriving in Salt Lake City in January are the awe-inspiring snow-covered mountains that loom over the city to the east. *Much* more impressive than the Catalinas in Tucson. Could

be mountains are just more impressive when covered with snow.

Then we do the *l-o-n-g* drive out to Dugway. Almost two hours drive.

**Tuesday:** The first working day. On the drive out to the range, we pass by a herd of pronghorn antelope right by the road. Dugway is all open-range, and (no hunting on an Army base) a de-facto wildlife preserve. We also see small herds of wild horses most every day we are out here.

Since Dugway is an Army base, they play bugle calls over the PA system: Reveille at 6:00am, Retreat at 5:00pm, and Taps at 10:00pm. At first, this is charming. Later it begins to grate.

We get to the first site - a "cave" (really an erosion pocket) a few hundred yards up. The project is to put store mannequins at the sites so the video can capture the event of "killing bad guys". So we pack mannequins on our back up the side of the mountain. I get one almost all the way up before I run out of gas. So now my job description apparently includes assembling and dressing store mannequins!

**Wednesday:** The gunners have arrived; Army Sergeants, who are accustomed to physical exertion. They seem to relish packing these dummies up the hill. I'm only to glad to let them.

At the second site, we use some six-wheel all-wheel-drive All-Terrain Vehicles (ATV) to move mannequin boxes across a *very* muddy field to the base of the mountain, where the sergeants obligingly pack them up. This site is a real cave, and goes in quite a ways. There's also an abandoned owl nest in here. The walls of the cave are formed of what looks like coral, but I'm thinking it is more likely wind-eroded limestone. The mountain is a strange composite of granite and sedimentary stone, and despite the comments from our chief about how this area was an ocean bed millions of years ago, there's no way this mountain, eroding as quickly as it is, could be millions of years old.

**Thursday:** Mannequins are in place, photo guys are setting up for next week, not much to do.

Dugway, being intentionally remote, has almost no facilities. The Officers' Club has been converted to the "Community Club", primarily a cafe-style restaurant, which is the only place to take meals. Except for Monday, which was Martin Luther King Day, which is a federal holiday, so *everything* was closed, and our dinner was the cup-o-soup packs we got for snackies during the week. Anyways, several of the

residents of Dugway proper are here tonight, some teens and families with young children. Everyone knows everyone else. Very much "small town". Oh, and the weekend in Dugway appears to start on Friday, so the "Community Club" will be closed for the weekend!

**Friday:** Some of the people head out to the range for some final setup. I'm flying back to Tucson for the weekend. There's a winter storm warning since yesterday, but nothing has materialized yet. The road we took in Monday isn't maintained, and could be snowed under, whereas I'm told that, since most of the people who work at the range live in Tooele and commute every day, that road should be cleared. So just to be safe, I take that road. I sure wish I had my camera; the road goes through a beautiful mountain pass, and the small towns are picturesque.

**Saturday:** I'm back home in Tucson. The Alabama people who elect to stay over the weekend in Utah (which is pretty much all of them) go to Park City to participate in the Sundance Film Festival.

**Sunday:** This week, I'm taking my camera. Just to show that 2010 has started out with winter weather over most of the Southwest, not just Utah, I use my new Christmas camera on the Catalinas.



Including from the air. Worked pretty good. I like this little camera; thanks, Jerri!



**Monday:** The week starts out with two TOW shots at the first cave. We are all expecting the more energetic Bunker Buster warhead to collapse the fragile "ceiling" of the first "cave". It does not (bets are won and lost); from photos afterwards, it seems the missile may have gone off at the mouth of the cave instead of inside. The second missile is a TOW 2B; we are not expecting it to damage the cave, but it is a spectacular shot all the same.

**Tuesday:** Two Javelin shots, one at each cave. At the second cave, the missile goes right inside, and the blast expels the mannequins in a rain of torn clothing and body parts.

After the shots, the photo guys go to the TOW launch site for tomorrow's activities. I don't need to go, so I don't. After a while, I get bored, and decide to verify that the RV's doors are locked. I back up - right over a gravel pile that is perfectly sized to not be visible in the mirrors and yet high-center the silly 4WD.

**Wednesday:** Snows all day long. Two TOW shots, three Javelin shots at an IED (Improvised Explosive Device) site. Mannequins obliterated! The boys from Alabama helped drag the car off the gravel pile, which was then filled with shattered dummy parts that smelled like high explosive, for throwing in a dumpster back at the settlement.

**Thursday:** Last day. We set up for the first TOW boulder shot. But when the gunner pulls the trigger, the missile comes out, the flight motor fails to light, the missile hits the ground a few times, *then* the flight motor ignites, and the missile dances terrifyingly around before nosing in and detonating the warhead.

After this upset, the CCWS test managers decided to end the project, since we had already achieved the video shots they wanted. So we packed up the rest of the mannequin trash and headed off the range.

**Friday:** Last act on the range: pick up the empty missile shipping containers, and load up the trailer with the ATVs. We take them to the range firehouse and use a high-pressure firehose to wash the mud off. The Raytheon people leave Dugway, caravan back to Salt Lake City, return the RVs, and take our muddy rental cars through the car wash.

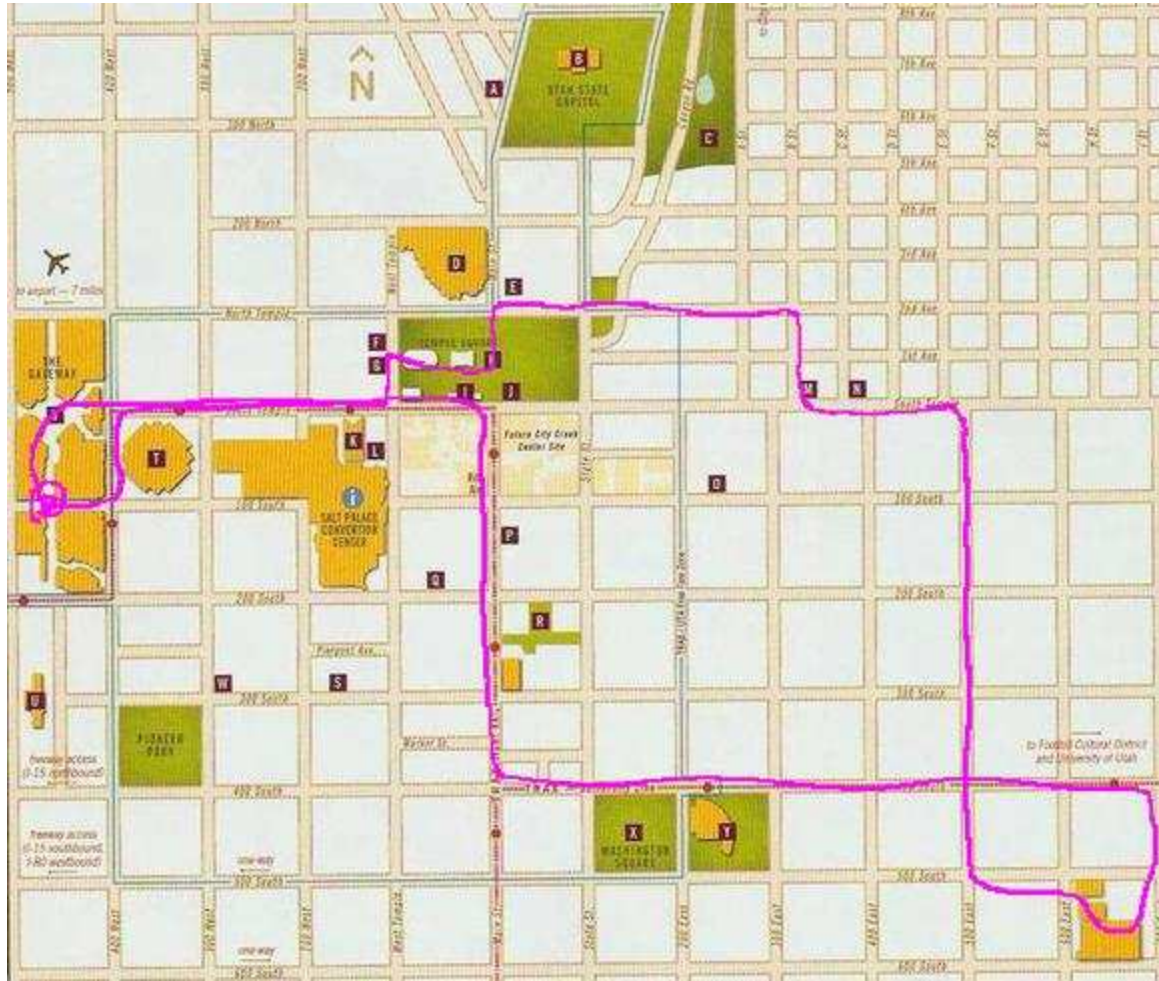


As we leave Dugway, we encounter the "open range" - cattle roaming right up to the road. Farther along, we find a dead cow just off the roadway, obviously a victim of a car accident.

## Salt Lake City

It's Friday evening. It's still a bit early (still daylight outside, about 4:30pm), so I decide to get my camera out and head downtown!

Here's a map of downtown Salt Lake city with my route drawn in. The girl at the hotel counter suggests I park my car in the underground garage at the Gateway Mall. The most convenient road from the airport to the City is North Temple, which also goes right past the Mormon temple complex.



I park and start walking, but I don't get very far before discovering that the Gateway Mall incorporates the historic Union Pacific train station. Here's the exterior. Just a bit south of here is the Rio Grande railroad depot, which is also a museum thingie, but I won't have time to see it this trip.





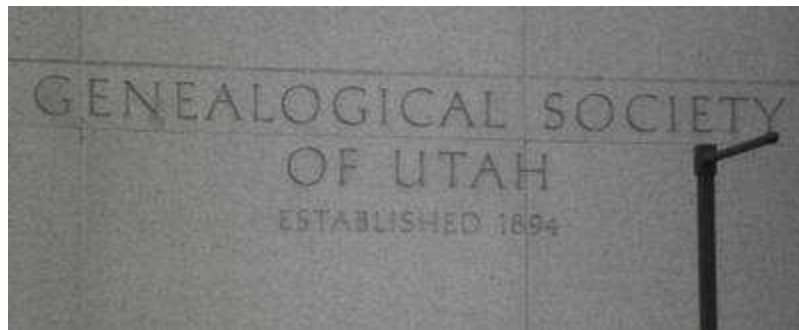
The interior of the station. It's not real big, but it is quite pretty. Big paintings at either end show events from when the Mormon founders arrived at the SLC area.



Back outside, I discover that Salt Lake City has a light rail system, and there are two stations conveniently adjacent to the large Gateway Mall area. And also conveniently adjacent to the city convention center, seen in the background here.



A closeup from the train station. The Olympics of a few years back left an indelible mark on the city.



I arrive at Temple Square. Just outside is the LDS museum and geneological building. Given the "baptize for the dead" thing, there are a LOT of facilities for tracing your

ancestors here. Quite likely part of the draw for visitors to Salt Lake City.

The log cabin from a SLC founder is preserved as a monument to the Mormon pioneers.



The temple complex itself is enclosed behind a wall and gates that are open until 9:00. Inside are the Temple itself (which "gentile" (non-Mormon) visitors cannot enter), the Tabernacle (of Mormon Tabernacle Choir fame, which visitors can enter (I do not; I don't have time)) and which is a domed structure that looks like a silvery turtle shell or armadillo, and the visitor centers. There are also pairs of young ladies drifting around to intercept visitors and answer questions, provide brief tours, and present their LDS beliefs. One pair approaches me, and I discover that the blonde is from Tucson herself. Clearly the Temple complex is a terrific opportunity for Mormon proselytizing, and the LDS church makes the most of it.

I walk through the South visitor center, which has a museum display of the building of the Temple, from the original command ("from the Lord") to build it, and the plans, to the masonry implements and techniques employed and a model of the dedication plaque, which is part of the Temple up above the front door. The Temple was started in 1853, and took 40 years to build.



Here's my ugly tourist photo of the Temple, just to prove I was here. Late in the day, wrong angle. A morning shot would be much better. Still, the dedicatory plaque is visible at the third "story" of the central column. There's the golden angel Moroni up on top.

Here's a better picture that someone who is a better photographer than me took at a better hour of the day and a better time of the year.





Right outside the Temple is the worldwide headquarters of the Church of Jesus Christ of Latter Day Saints. There are many large LDS buildings in the area, and lots of clean-cut young-ish people in business clothes.

I proceed past Temple Square, and cross State Street. Up the hill is perched the State Capitol. I walk up a stiff hill several blocks headed east, then down the hill to the south. At the bottom of the hill I discover a catholic church, Cathedral of the Madeleine.

Which is housed in a really beautiful building, which has all the characteristics of a catholic church - twin bell towers, big rosette window, arch with inscribed figures over the front door. Dates from the mid 1900s.



First Presbyterian Church, on the other hand, was founded while the LDS Temple was still being built. Over the front doors are inscribed "Sola Fides" (Faith Alone) and "Sola Gratia" (Grace Alone), the mottos of the Reformation. I would hope that the Presbyterian church

that meets in this building holds those mottos to heart, and the primacy of Holy Scripture... but it would be an unusual Presbyterian church anymore, if it did.



I keep walking south in the gathering dusk. My destination is Trolley Square, which I see on the map, but without context, so I assume (silly me) it has something to do



with trolleys. I arrive after it's too dark to get photos with my own camera (so again, other people's photos, but at night, so it's similar to what I see). Turns out Trolley Square used to be the barns where the trolleys for the city were housed. No more trolleys; now it's buses and light rail trains, but the barns have been preserved and reconfigured into an upscale shopping mall. If I had more time, I would look around a bit more.

And I don't really care to walk all the way back in the chilly night. So I walk back north a block to where I saw a TRAX station, and buy a ticket. A few minutes later I'm in a train headed back through downtown, past Temple Square, and up to the Gateway Mall. Very pleasant, and very warm! Lots of other riders, too.

When I get off the train, I discover that tonight, the Utah Jazz basketball team is playing at the convention center, and the streets are packed with fans (many in short-sleeve Jazz shirts!), and ticket scalpers! I shoulder through the crowds, back into the Mall (where again, I would like to look it over given more time), and back to my car. I get back to the hotel just in time for dinner with my Raytheon buddies, who are leaving early tomorrow.

## Promontory, Utah

But I am leaving early tomorrow, as well! I see on my National Car Rental map that just north of the Lake is the Golden Spike Historical Site, marking the point at which the Transcontinental Railroad track was finished. A check of Mapquest indicates that the drive should be about an hour and a half, so I should easily be able to get there, look around for an hour, and back before I need to return to the airport.



The famous photograph of the meeting of the Central Pacific (from Sacramento, California) and Union Pacific (from Omaha, Nebraska) railroads at Promontory, Utah.

Saturday morning is clear - and **COLD**. 16 degrees F. I have to scrape the ice off the car windows before I can leave. I get on I-15 and head north of the City for about an hour before arriving at Brigham City, where I get off on the state highway and head west.

Just off the highway, I enter the town of Corinne, which was an important railroad town in its day. I think this is funny, because there is a girl at my church named Corinne!





A half-hour's drive down the frosty rural highway brings me to the ATK/Thiokol plant. Enormous, and remote, just the sort of place for building big rocket engines such as the Space Shuttle boosters.



I follow the signs for "Rocket Park" and come to this display of ATK rocket motors.

But somehow, in my fascination with the ATK plant, I miss the sign for the Golden Spike route, and I continue to drive on the road that I thought would take me there. Eventually, I notice that there are no highway markers, and no mileposts, so this can't be an official highway. I turn around and backtrack, and find the Golden Spike turnoff was perhaps a half-mile before the "Rocket Park". Oh, well, I haven't lost *too* much time.

I arrive at the Site. Outside the visitor center is the official marker. Inside the visitor center are some bored rangers. During the hour I'm there, a single family arrives. I guess this is just too far off the beaten path.



I watch a short film about the building of the Transcontinental Railroad, and the fantastic efforts and sufferings of the engineers and surveyors and Irish and Chinese labourers in the face of horrible weather, tremendous natural impediments, and hostile indians. The center also has a little museum with some of the implements used during the construction, and models of the commemorative spikes - the original spike is now in the museum at Stanford University (named, yes, after the Central Pacific Railroad company president, Leland Stanford). There were actually a few spikes; five by my count, some gold and some silver.



Actually, it turns out that this is all reconstructed. When the lake cutoff was built and this section of track abandoned, the railroads tore up the track and turned the iron in to support the war effort. What is here now was built just to commemorate the original railroad meeting point.

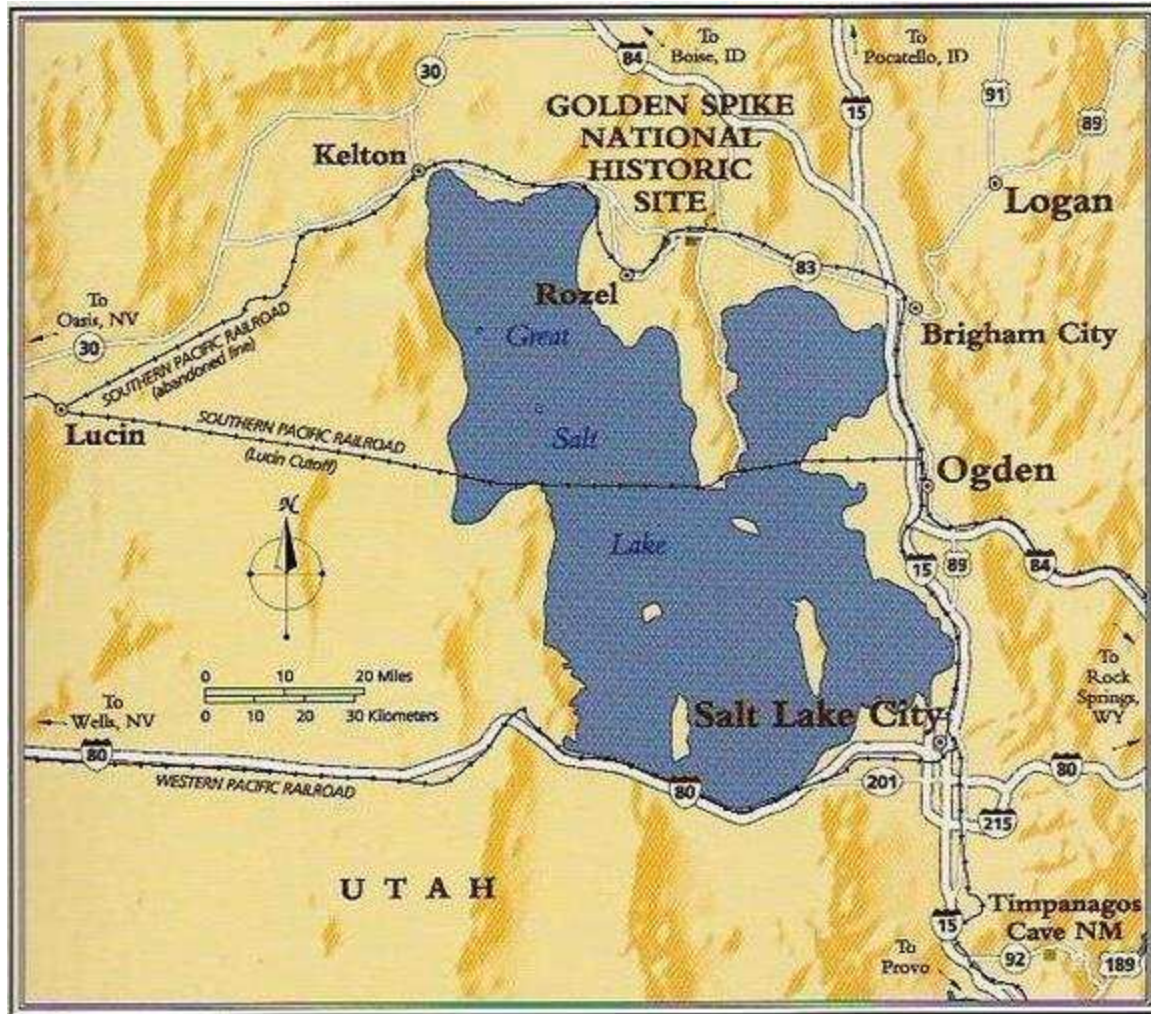
But this *IS* the place where history was made, even if the wood and the steel aren't original. Here is the point where the CP and UP tracks finally met!



The plaque in the track.

Originally, the tracks went around the Lake. However, the Lake is pretty shallow, so the railroad built a "cutoff" across the Lake, originally on wooden trestles, eventually on a causeway. This cut miles and lots of time off the route. This development eliminated the usefulness of the original track, so in 1942, the railroad abandoned the route and held a "despike ceremony".





Now, besides the bit of reconstructed track and the plaque marking the historical event, the Park Service runs a daily reconstruction - during the summer! They use these two locomotives, the 119 and the Jupiter, which are themselves reconstructions of the original locomotives, from the blueprints, from the ground up.



The engineer ranger opened the engine shed just for me, and he took my picture next to the Jupiter. He was full of information, including tips for other steam train routes, like the Heber Valley Railroad nearby in Utah, and the Sumpter Valley Railroad in Oregon.

By now, the visit to the Golden Spike Historical Site has taken something under an hour, including getting some things at the gift shop. I get back on the road - a half hour (with no mistake detours), I'm back at I-15, and something less than an hour after that, I'm back at the City. I've still got lots of time before my flight, so I go back in for some final sightseeing. This time I go to the end of State Street to the Capitol.



I'm not the only one who thinks the Capitol is photogenic.

Note the dark mound on the staircase - a beehive. Beehives are everywhere - the highway markers are beehives. The state insect is the bee. All inspired by the mythical Mormon "deseret" bee.





The area around the Capitol is essentially a park, people walking their dogs, plenty of room for cars, not too crowded. There is an information center here with free tourist information and for-sale goodies (like beehives). After I look around a bit, I leave and go back down State Street to the Salt Lake City Hall and County Building.





Which is the most amazingly beautiful baroque building. Too bad it was closed today, and I couldn't see the insides. Here is the clock in the central tower.



Some of the decorative stone carvings. You just won't see this sort of thing on new buildings. What is that on the right one? A beehive?



The view up State Street from City Hall to the Capitol perched on the hill. Salt Lake City is pretty easy to drive around in, spacious and picturesque. I'd be up for a return trip sometime. When it's less cold!