

The Cherry Chronicle

By Christopher and Heather Henry

Learning Fiji Time



Anchorage Resort, our room was on the second floor.

On our way to Australia we stopped over at the Fiji islands, a group of islands about halfway between Hawaii and Australia. The flight from Los Angeles to Fiji was 11 hours. We spent three days there recovering from jet lag; the trip is such a long one that I didn't think my wife with her back condition could take the entire trip in one leg. We started from Lincoln at 8 am on November 19, 2004 and arrived at LAX by 8:00 pm. Then you board the aircraft for the longest leg of the journey, and I have never been able to sleep on an aircraft. We arrived about 6 am on November 20, 2004 and started our day. Because of the time difference we skipped a day. A short nap was in order before we could do anything.

We went down to the beach and mingled with the locals, ate a nice lunch and planned the next two days. The second day we took a trip to an uninhabited island where we snorkeled, line fished, and entertained ourselves by discussing politics with Norwegians, Irish, and Californians. One could walk around edge of the island in 10 minutes. The water is so clear and blue here and the people are so poor it really makes one appreciate the conveniences we have in the US. I think they learn how to

play the guitar here at a young age as several of the young men played native and US songs (mostly oldies).



Figure 1 View from Resort (hotel)

We met two young female teachers from California on our trip as well as an Irish couple and an older Norwegian couple. The Californian girls had planned on spending all day on the beach then getting on an airplane that evening. It is generally not a good idea to board a 8 hour flight to New Zealand smelling like the sea. So we offered for them to stop by our hotel and shower before their flight. Unfortunately there was not enough room in the taxi for all of us so they ended up taking showers at a mate's (Australian) hotel that was just across from the airport.

The next day we went to Nadi, a small community near the airport. Our first stop was to one of the Botanical Orchid Gardens, where we strolled around and looked at vegetation for about one hour. After the tour we drank some complementary mango orange juice. Our driver waited for us and took a nap while we toured so when we were ready to go we had to wake him up. Our driver, Setje, had 5 kids, his 2 sisters lived with him, I don't imagine the poor guy got much sleep at home. We went shopping but only purchased post cards. On

our first inquiry into black pearls, which are made in Tahiti, Heather had picked out a single pearl necklace and a set of earrings together priced at a retail total of about \$3000 Fiji dollars. For fun we acted interested and started dealing, before I was done they were down to \$550 US dollars. One US dollar is worth about \$1.60 Fiji dollars.



Heather and Chris pose for a portrait at the Orchid gardens

I made the mistake of allowing our driver to select a lunch spot for us on our trip to Nadi, a shop run by some Indians (immigrants from India). I always get burned when I don't heed the advice of my mayor professor when it comes to certain Indian establishments. Bad crab and no bathrooms, need I say more. Bathrooms it seems are a luxury that you don't find in every restaurant in the south pacific (Australia included).

We were about 1000 meters from a swine confinement building, and I tried to make arrangements to visit the site, but the resort (everything is a resort there, even the comfort inn equivalent is called a resort) owner could not get things set up in time. It was a 5000 head barn, appeared to be a modified open front(MOF) and was located upwind from the resort. I was told that the pig producer was building a new barn twice the size of this one on the other side of the island. Setje told us there was a single processing facility on the island where the pigs were slaughtered.



5000 head swine finishing unit near hotel. MOF unit with chimneys, most likely partial slatted.

The major industries in Fiji are sugar cane and tourism, seems everyone either works for one of these industries or you don't work at all. Currently both are in dire straits. Sugar cane is all harvested by hand, bundled and packed on small rail cars, where the processor picks them up and rails them to the mill. Seems all of the land is owned by Fijians and the tenants are immigrants from India. It appears to an outsider from several inquiries that a common tradition is to divide a parcel up and allow a 10 year lease for an Indian family to build a house and farm the ground (develop for agriculture). When the lease is up, they ask the family to leave and start over with another family from India who can afford a higher rental rate.



Sugar Cane field showing rail tracks in foreground

So if you don't work for the sugar cane you are in tourism. All of the colleges here crank the students through, it seems. They teach them some computer skills and hospitality (which had much to be desired by US standards) and there is a good work force to draw upon by the resort industry. To harvest sugar cane, they burn the cane to reduce the residue and I later learned to vacate the taipans (a very lethal snake in the pacific) from the fields. I was told a technician at DPI&F was attacked by a

Tiapan, while checking some equipment in a sugar cane field, it nearly took his life and it was a year before he was able to resume his normal job responsibilities. With good reason the workers won't pick cane unless the fields have been burned. The smell of cane burning was always in the air.



Sugar Cane field burning



The sugar cane transported by train.

Fire!

You could see fires burning everywhere and had trouble breathing with all the smoke. The Fijians set the sugar cane fields on fire and don't have much control of them. They end up burning peoples' homes and resorts down since they don't have good fire fighters and other resources. We were eating a lobster dinner at the resort, funny that a lobster meal is about the same price as everything else on the menu, because they have to import just about everything (for example a head of lettuce costs \$8.00 F). We were packing up in preparation to evacuate since the fire was so close. It ended up burning itself out and we were able to sleep better knowing we weren't in danger. I was ready to leave Fiji on Tuesday just so I could breathe fresh air. All our clothes smelled of smoke from the fields burning.



Sugar Cane Fire that raged out of control on the second night of our stay. Fire came to just 200 feet of the resort grounds, before wind changed direction of fire. Picture taken from balcony of room

The Oil Pipeline Project

During our stay we had gotten to know some regulars, on extended stay there at our resort. A New Zealand couple who were constructing a building for one of the colleges and three Australians, one was a mechanical engineer overseeing a 800 meter pipe installation and two painters working on the same project. The New Zealander was using local help, carpenters there make \$2.50 Fiji per day. Seems like not much but one has to figure in the Fiji time discount. Fiji time is "when we get around to it". There is always time in Fiji. It's engrained into their culture and must come from the early beginnings of their settlement. Fijians actually boated to the islands from Africa, damaged their boat upon landing and decided to stay. We actually were just down the beach from where the first boat landed; they call it the "first landing".

Before boarding the plane, I made a last stop to an oil refinery transfer station construction site where a 10 inch steel pipe was being fabricated to be laid in the ocean to load ships for a oil company (will leave it unnamed). Each section was about 40 meters long, required flanges to be welded to each end, bolted, sandblasted, painted, assembled on land and dropped onto the ocean floor. After three weeks with local labor, I only saw 4 welded flanges. According to the project manager they would not pass quality control. I was present during one of the morning discussions, the project manager in a very direct and certain manner told the contractor that there weren't going to be enough flanges to do the job, and the contractor

told them there were (I have paraphrased and condensed the discussion). “Mr. contractor, how many flanges do you have?” The Fiji contractor said, “40”, the project manager said, “You will need 46 after we cut the ones off that don’t pass inspection, what do we do then?” The contractor said “There will be enough we don’t need any more.” This went on for 5 minutes, and had been going on for three weeks with only about 4-6 flanges welded. Personally I think I could have welded all six of those in one day, with my portable Miller from back home, but I don’t operate on Fiji time. I just had an email from the Australian Project leader, it’s been a month (4 months total) and they are still at it.



Pipeline Project worksite in Fiji, workers in background are TIG welding a flange in tents

ARRIVAL

G’day Mate!

We arrived in Brisbane, Queensland, Australia on November 23, 2004. We rented a car and drove 130 km (about 1.5 hours) to Toowoomba. Toowoomba’s population is about 100,000. The town sits on top of the mountain. It is quite a steep incline coming into the edge of town. The scenery here is beautiful with small mountains in the distance. At Picnic Point, a park at the edge of town, you can view the road that comes into Toowoomba and the towns around.



The road to Toowoomba.

GETTING SETTLED

Chris and I lived at the Clifford Gardens Motor Inn for two weeks. Luckily there was a small kitchenette to make meals. We used a microwave and skillet to make spaghetti and stir fry. Our first priority was to find a place to live. It was quite an adventure trying to find an unfurnished unit (apartment) we could rent for 8 months. The real estate agents here manage the properties. You make appointments with them to inspect (view) the units. There usually are only 1-6 units per address. After viewing 20 different places for one week we applied for a unit. The application process took about 5-7 days before we found out we were approved. They have to know your life history before you can rent here; call your references and check your credit. We are living in a two bedroom unit and pay rent by the week instead of the month. Refrigerators are not included in an unfurnished so we purchased a used one.

Motors....We searched for transportation at all of the used car dealers in town and called the ads in the newspaper. After searching for transportation in the 90+ degree weather at every used car dealer in Toowoomba the last week in November we finally decided that we could buy more car for the same money from a private sale. So we started looking more seriously at cars in the paper. I think we were the only bloody Americans looking for a car that week. We decided to narrow our search to a Toyota sedan of some sort, knowing that they are very reliable, economical, easy to find parts for, and cheap to insure. The first car we found was in good condition, but did not have a safety certificate, so we could not purchase it. The shop that issued the certificate would not

certify the car until an oil leak, cracked windshield, and the spare tire, which was bald were fixed. The second car we found was a Cressida, a car owned by a retired couple, in immaculate shape. We went back to purchase the car and the owner would not sell it to us. It seems it had blown a head gasket during our test drive and the owner did not want to sell us a problem car. The next car, a 1991 Camry, was being sold by a chap who repairs accordions, not very mechanically minded, but had always had the car serviced regularly. I checked with the mechanic and we bought the car, seems to run good. It all worked out though, because all in the same day on December 6th, we turned in our rental car, purchased the used car, bought a refrigerator, a mattress, and moved into our apartment.



The place we call home in Toowoomba.

DRIVING.....

Driving on the left side of the road and sitting in the driver's seat on the right has been an adjustment. Chris has done a fine job driving. It is very easy to hit the windshield wiper instead of the turn signal as they are opposite from the US. Chris took the written exam and is now a licensed driver in Queensland. "Over taking" is not the same as passing here in Australia. Heather has only driven twice, and would rather not drive on the left side of the road.

Wineries....

We have toured two out of the many wineries around the Darling Downs area. Australia is known for their wines. Maybe

we will go help pick the grapes when they are ready in January.

Certified scuba Divers!!

CHRIS AND I HAD SO MUCH FUN LEARNING TO DIVE FROM KEN JONES SCUBA ZONE. WE TOOK A DIVING COURSE WITH THEORY FOR 7 HOURS AND POOL INSTRUCTION PRACTICE FOR 4 HOURS. DECEMBER 18-19 WE WENT TO THE GOLD COAST; WE DID 4 SCUBA DIVES AND 1 SNORKEL DIVE. TOO BAD THE VISIBILITY UNDER WATER WAS ZERO. WE SAW LOTS OF CORNFLAKE WEED AND VERY FEW FISH. WHAT AN INTENSE SPORT!!

Restaurants

There are some fast food restaurants here like in the US: KFC, Pizza Hut, Domino's Pizza, Hungry Jack's (Burger King), and McDonalds. We have noticed that you have to buy condiments. Drinks are bottled or canned, no fountain drinks. The serviettes (napkins) are usually kept behind the counter and they give you one when you get your food. I haven't seen Australians eat chips (French fries) with ketchup yet.

We have eaten at KFC where we received a prepackaged container of Mashed Potatoes and Gravy and Coleslaw. You receive more gravy than mashed potatoes. Pizza Hut has perfect crust (hand tossed) and a large pizza in Australia is equivalent to a medium pizza in the US. It cost 9.95 AU for a supreme. McDonald's has many of the same things. A regular cheeseburger cost \$1.75AUD. It sure is dear (expensive) to eat out here.

Let it snow? Not Here!

Chris and I spent our Christmas with an Australian family. We ate ham, duck with chicken stuffing, potato salad, and lettuce salad. Before the meal we each had crackers to pop and inside them there is a plastic hat and a corny joke. You put the

plastic hat on and eat your Christmas lunch. A typical dessert is Plum pudding served warm with vanilla ice cream, custard, and cream. The plum pudding takes a long time to prepare. It is hung to ferment for a week in a cloth. Then it is boiled for four hours and brandy is poured over it before it is served.



Christmas Day We Celebrated Australian Style.

Time Difference: We are 16 hours ahead of the US in Central Standard Time. When we are going to bed for the night the US is just waking up to start the same day.

Our address in Australia:
1/77 Knockator Crescent
Toowoomba, QLD 4350
61 (07) 4636 0923



The lookout from Picnic Point in Toowoomba

The Technical Corner

Chris is housed at the National Centre for Engineering in Agriculture; it is a joint venture between the University of Southern Queensland and the State of Southern Queensland through its departments of Primary Industries and

Natural Resources. The Director, Erik Schmidt, has been very helpful in helping me get acquainted with the people working in my areas of interest.

Upon arrival I met with FSA limited, a consulting firm that does most of the permit applications for livestock facilities in Australia. They have two offices one in Queensland and another in Victoria. It seems that the process is more regulated in Australia, and controversy in the early 1990's sparked new requirements, most notably what they refer to as "separation distance guidelines." These separation distances were developed with AUSPLUME 4.0. They employ a two tier approach to the separation distance. The first are minimum distances, absolute minimums from designated receptors (i.e. water courses, neighbors, large towns, etc.). Additionally the new owner must calculate the variable separation distance and apply this to neighboring residents and towns. The greater of the two must be applied. The variable separation distance is a function of the number of animals, effluent removal procedures, receptor type, topography features, and vegetation near the facility. The following is used for swine operations; a similar one is used for beef and dairy. Poultry operations are currently regulated by local governments and are not subject to these state requirements.

$$SD = N^{0.65} * S1 * S2 * S3 * S4$$

SD = Separation Distance

N = Number of standard livestock units

S1 = Effluent removal factor

S2 = Receptor type factor

S3 = Terrain Factor

S4 = Surface roughness (vegetation)

Progress has been slowed

The second tier involves doing site specific modeling to a proposed site. A much more involved approach, I hope to learn more about this during my stay.

The FSA and DPI&F group have collaborated on a feedlot surface emission project which is a very involved attempt at determining emissions

from feedlot surfaces and is the most involved data set I have ever seen. If published, this will be the most extensive work ever done with feedlot emissions.

The second meeting was spent with the Department of Primary Industries and Fisheries (DPI&F). The DPI &F is essentially our university research effort, extension, and regulatory agency (NDEQ) all rolled into one agency. They are responsible for research, enforcement, and extension education. They also have a Environmental Protection Agency (Federal) and the relationship between the agencies appears very similar to the US (i.e. state has program authority for EPA programs). The primary topic of the meeting was odor work. I later spent a morning with Geordie

Galvin, the leader of the air/odor group and went over several of the models they use in AU. They showed me TAPM, Ausplume, and WinTracks, which are the primary models in use currently. Below is a video of some output from the TAPM model, it shows how odors can move with the wind (double click on video to play, must have an AVI file player installed on your pc). To this point the information exchange has only been one way, so I am planning a meeting after the first of the year to show the groups the US experience and begin the process of developing some collaborative efforts.