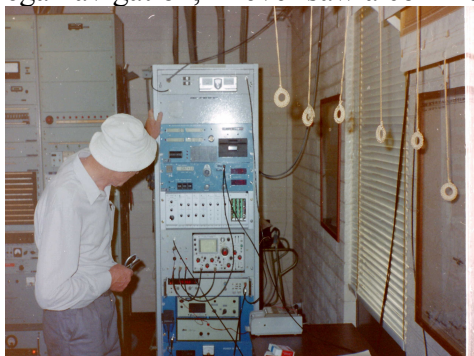


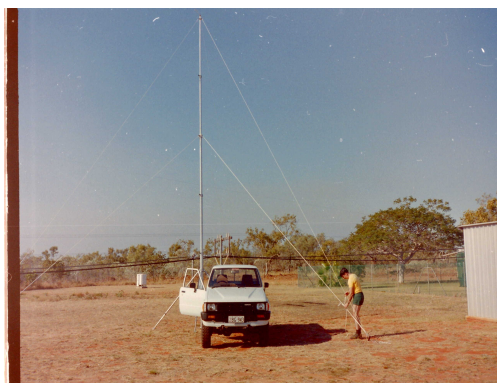
In 1985 or there about we, the NAV guys, did a trial centred on Broome. It was referred to, unofficially at least, as the Last Gasp trial. Our team leader and chief had an enthusiasm for the North West of Australia and was determined to get in one last one before he retired. That was back then when one had to retire at a specific age, that was then 65. A rule which did not apply to politicians and judges but did to every body else employed by the C^A. The chief leaving the workforce, albeit reluctantly and was going with a final flourish. That was to be one more trial in the North West.

We were still, at this time, engaged in Omega navigation research and had got the system to the stage where it could actually derive position, with some effort. This was a far cry from the effortless business navigation is now, the sort of thing that GPS has lead us to expect. Technically Omega had, due to diurnal variations in the path length, changes within a day of up to approximately 25 kilometres. All of which did impact more than a little on the ultimate NAV solution. The idea back then was also there were not going to be loads of users for this sort of stuff anyway. Ocean liners, passenger jets and the military, but who else needs to know their position? Or could afford the tens of thousands of dollars [and 10K would buy 2 Corollas then] these things cost. Even tho' the accuracy of a position, globally, was within a couple of kilometres almost instantly was more than could be achieved by anything else. The thing was that in all my years in Omega navigation, I never saw a commercial Omega NAV set.



The base rack with the chief looking at it.

However we did have a system. This one relied on differential van. The basis for differential navigation is that one stationary station is used as the base. The assumption is that positional shifts at the base can be applied to the mobile station. That is the plan. We would set up our bases station at Broome and go out from there to predetermined sites and log data at those sites as well as occasionally pass corrections. The mobile set had an attachment developed that enabled the corrections to be input into the system and using this and the data available, a lat/long position would be calculated. The early Omega system we took to Onslow had been improved greatly over the years and was at this point a 3 frequency system. The data logging had gone to a floppy disk based system and the micro processor code was almost 16k byte. While it now takes more than that to do a carriage return under the current systems back then you could do a lot with an 8085. Ah the joys of assembler code, with a maths chip.



Base antennae set up. John Silby.

Another thing that had come with the passing of time was the trials vehicle. The old sedate Land-Rover had gone and was replaced with a Toyota troopship. The sedate Land-Rover was replaced by a vehicle that was maybe twice as fast. The immaculate road manners of the Rover were replaced with Toyota's idea of road handling. Politely handling, well that was a work in progress. There was a fair degree of correlation between the steering and the front wheels, but not a direct connection as I had come to expect. The vehicle went in a straight line there was just a bit more variation about the line than one was usually comfortable with. It was never dangerous, just mildly disconcerting. To complete the picture it was compared to the Land-Rover, a road rocket. For better or worse it was our trial vehicle.



The Landcruiser, in the field, with the comms ant on the back.

The team was going to be reasonably small. The chief and me as usual and John. John has fairly early in the piece shown an interest in things that I didn't really want to know about. Mainly crocodiles. If opportunity presented itself we were going to see crocodiles. That seemed reasonable, however John's enthusiasm extended to catching them. Or this was the impression he was creating. Normally I would have dismissed all of this but John tended to translate his enthusiasm into action. It was not helped when he issued me with a crocodile catching kit. A large plastic bag with a stick you jammed into the open crocodile's mouth. This according to Tarzan films meant they couldn't close up. Some rope for tying them up and a couple of other bits to complete the kit. A couple of Band-aids if things went wrong, a couple of Aspirin should you get a bite etc., John had made up several of these kits. I was semi confident this was all a joke.

We had for this trial two vehicles, one the Toyota and another ute, as well as a bunch of boxes containing all the base station equipment all disassemble. Transport to Broome was going to be with the RAAF. A C130 had been provided and it was taking us as well as another large team that was headed in the same general direction. Thus it came to pass we all assembled at RAAF Edinburgh on a soggy morning, to find our vehicles loaded and a pile of our boxes aboard a C130. Seating on a C130 is Spartan, a pair of very long sideways facing benches more suited to Para troopers is what you get. A bunch of young kids milled about the front of the aircraft, air cadets getting a look over I thought. Then they climbed in the front, started it up and taxied out. Wrong guess. The only person on the plane who looked old enough to do anything was the load master. The rest of the entire crew were teenagers. The C130 climbed out of Edinburgh at the cruise speed

of a bonanza and the rate of climb of a WW2 fighter. Almost as soon as the aircraft clears the ground, crew members are into the vehicles, they have fully reclined the seats and are asleep. Others conjure up slabs of foam rubber and do the same. 5 hours later we land at Broome, the back door opens and blinding sunlight and palm trees greet us. We exit the plane and discard clothing as quickly as we can. 200 locals watch in amazement as we try and adjust to a 25°C temperature change. They are all wearing shorts, thongs and have a beer in hand. They are all brown, we are all pasty white.



Delivery of the vehicle via RAAF

We have a couple of extra people on the trip to do the base station set up. We are using a small area in what was recently a cable company. Broome was a place long ago, where a submarine cable came ashore. Some space at OTC was made available for us to set up our base station, after which the spare guys went home. Only the trials 3 guys remain. The trials were to be essentially 4 runs, two southerly ones going down as far as Port Headland and two easterly ones going as far as Kununurra and Lake Argyle. The only real constant in all of this was to be the weather, in the weeks we were there we had one time of some rain. I also saw a couple of dozen clouds. In the evening the temperature fell, but not much. Those of us who forgot to pack cardigans had nothing to remind us of the fact. The Port Headland hotel did have a beer garden and at night there were 44 gallon drums with burning wood in them, this was more I suspect for dramatic effect than need. The locals may have thought it cold at night or perhaps could only talk around a fire after it got dark. I suspect the locals had a poor cold tolerance as well. I never felt the need to get near the fire. The only comms dramas we had occurred at Port Headland. After one of the observations we drove off without properly securing the comms antennae. The comms were HF, something in the general range of 2-6 MHz if I recall. The only way back then, to talk reasonable distances. We had a Codan transceiver. Now a days you cannot escape communications, 30 years ago it was a problem. We had, when set up, a constant link. We were well ahead of the game back then. The antennae was a small circular device on the end of a 12foot aluminium pole. This fitted on the end of a matching box and stuck way out the back of the van when in use. This combined with the large circular antennae on the roof did make the vehicle look a little like a very poorly drawn helicopter. The rear antennae was normally stored for transport in a tube mounted against the roof rack, It was held by a buckle and strap, usually, it had come loose and fallen by the wayside. Fortunately noted by someone who knew who it belonged to and we were informed indirectly and were able to retrieve the same. The only other incident was also at Port Headland and we had the vehicle set up in a corner of the car park and had the equipment powered and running. We had also left the comms antennae on the end of the box. Come morning we discovered some one had, after becoming lost in the car park either driven into our antennae or had tried to do chin-ups on it. We spent a busy 10 minutes bending it back into shape.

As there were essentially two trips to each location, the chief and John did one each and I did the lot. One our first trip to port headland we did an aerial tour of the place, about $\frac{3}{4}$ an hour in a C172 from the local aero club. I was passenger for this one. John incidentally had a glider licence,

tho I don't think he was flying much at that point. The main recall if it all was the spread of the iron ore dust, it came no doubt from the ore loaders but coloured the land and the water all about the town. There wasn't much between Headland and Broome other than a road house at Sand-fire. Shirt sleeves were nailed to the wall and the barman seemed to delight in slamming whatever change came your way down on the bar. A time stamped texta message on the wall informed the world that Pam someone had [rephrasing it] done it here. In I imagine a quiet moment, tho' who knows? The name, haunts me in an odd fashion, it is forgotten but then oddly it pops into my consciousness and I cannot recall why. Or who, then I remember. I recall later reading that the road house, after a cyclone, is no more.

The trips to the east were of much more interest. There were several points of call in the lengthy journey. One of my abiding memories between Broome and FC, is of the flat plains and the distances and a really odd effect noted. The flat plain would be interrupted by a small feature, say a hillock, one only, but in the distance [say 5Km] down the track was another one, very similar but not quite, this would be repeated a number of times and then stop. It would then be replaced by another geological oddity and a number of repeats of that. I assumed this was due to God practising scenery. It all stopped before Fitzroy Crossing.

Fitzroy Crossing was the first stop on this leg of the journey, here, in the month prior to our arrival the police station was under siege from some of the local population. Where you can either cross the Fitzroy without getting you tyres wet, or wait months for it to become passable. It is fortunately not a part of the major road, tho come the wet that doesn't seem to make a huge difference. Fitzroy Crossing where you had either 3 star tourist class accommodation with air-con and en-suite or a meat chiller box with a door put on it. Furniture the Salvo's wouldn't want and texta marks on the wall showing the various flood levels. The pub /accommodation was quite a bit out of town, and the drive included a detour round a local who was on his way home from the pub, urinating in the middle of the road and he waved to us in a friendly manner with his spare hand as we drove around him. The pub was actually at the crossing, while the town wasn't. The pub itself had two sections, the public bar, it fronted the road. The bar serving area there was enclosed in shark-proof mesh. It was to keep the patrons on the other side of the bar, it didn't always work. It was a loud area. It was apparently not a centre for intellectual debate. It was a good spot to meet girls. Young, local, fractious and not over critical about much else. This assumed what you had in mind was buying a couple of drinks and a short term association. Most of the rest of the town was in the other part of the hotel. It was about what you would expect any pub back here to be like. A fair part of the town, when not besieging the police station lived in a camp outside of town, one could walk from the pub to the camp without touching the ground. This due to a carpet of beer cans, about 3 meters wide. Most of the trees on the way had a 3 metre carpet of cans about them as well. All the cans were washed away each year when the river flooded. So you have to figure that we are looking at a few months accumulation here. There was no 'can deposit' legislation in W.A.

Hall's Creek was a bit better than Fitzroy Crossing. It was a bit larger and the town was a little less whatever the other place was. I have no particular recall of the place other than that.

Kununurra was a place we went through on the way to Lake Argyle. This was a lake created by damming the Ord river. The camp that built the dam was made into a tourist camping area. The dream was that the water from the Ord would irrigate vast areas and provide lots of wealth. I didn't work that well. It produced crops the local wild life enjoyed and thrived on. The dam itself is magnificent, the outflow feeds a river not unlike the Murray. The plans for a hydro plant at the base of the dam had not been carried out at the time. What a pity. We had a weekend there, John hired a small boat with outboard. We took our crocodile kits out of storage and went upon the river. Never saw a damn thing, crocodile wise, good thought I. We also went to Kununurra and paid for a float-plane ride over the lake. Cessna 182. Sluggish performance and the float drag costs about 20 knots. Otherwise unremarkable and something I thought that I could have flown without much trouble. Flying over the dam wall one could see the lake disappearing way off into the distance, did we want

to go see the headwaters of the lake? That was a 2 hour flight. No we didn't but we knew it was big. On our way back between Kununurra and Halls Creek John and I thought we would go see Wyndham, unscheduled and unlikely to be approved. Logic indicated it was best not to ask. John tended to deal with many things this way. The plan was to leave early, drive quickly and not talk on the radio. We could sneak it in, it was only about 100 miles extra, we could look at the town if we were quick. We were $\frac{3}{4}$ of the way there when the oil pressure warning light came on. A delicate moment, how to explain why were we nearly in Wyndham? We would have to get the chief to summon the rescue forces, we had no phone. Could we do this, well a quick check under the bonnet identified an odd waving wire with clip, aha this goes there and then I see that the light goes out. Wyndham here we come, it is a tired looking town as far as we could see in the 5 minutes we were there. We get back to track and report in that we got a bit of a slow start for the day.

On the subsequent repeat of this trip, this time with the chief, we did the Lake Argyle boat trip. That was several hours and we covered quite a bit of ground except at the end where a map showed the lake and where the boat went. Sydney harbour on a map of Australia looks about the same. There are loads of fish in here too, the people from the boat came prepared and they threw old bread rolls on the water and the fish caused them to bounce along the surface a lot before they got soggy and sank in a flurry of foam. As it is a flooded river valley the lake seems to be bounded on all sides by hills, it is vaguely reminiscent of fjords except it isn't ice gouged. The chief and I also got off the beaten track during our return with a bit with a detour to see a creek that flows under a range of hills. You can walk into it, under the hills, for several kilometres. Lovely and cool and dark.

I did not, at the end of the day, spend all that much time in Broome. It was even then fairly touristy. A couple of classy hotels and huge tides. You could actually go watch the tides come in. Most of the boats sit in the mud at low tide. There are lots of mangroves, as well as mud skippers, these are a funny goggle eyed, air breathing fish. The car parks around town fill up each night with stubbies. This is not a totally tidy town. It should be noted however that low level miscreants, were, presumably after breakfast, paying of their debt to society as part of work gangs that went about the town, cleaning up the worst of the nightly debris. Broome has an open air cinema, something we never went to, but apparently it can become tidal, when the tides are particularly high.

We also tripped into Derby, like some other towns it has it's own pronunciation and I forget what it is. It was not as pretty or as large as Broome. It is I guess an ugly town. It is mangrove surrounded and at the end of a long and muddy channel, the tides are even more so than Broome. It is sort of on the edge of a swamp, or if it wasn't, that was what you felt. It had not the tourist trade and was a bit scruffy. Outside of the town was a boab tree that was once used as a jail. The jetty big and was was strangely circular.



The jetty at Derby.

Things are different up there, it is another place entirely. Everybody in Broome spends all day in the sun, every day of the year and they are all the colour of wooden outdoor furniture. At the

minimum. Nobody is this colour in Adelaide. In a pub one night a bit of a fight started close by and they crashed into our table and both fighting parties apologised and then seeing no beer was spilt, moved away a bit and resumed the fracas. John also claimed to have been accosted by a young lady who sort of appeared in the garden of the hotel car park one night, lateish. Her desire was apparently money, presumably for more drinking, an absence of clothes gave clues as to the intention or at least how she was hoping to get some more coin. John had wisely concluded that a discussion under these conditions was maybe unwise. This was one of the few situations John ran away from. The weather at Broome made these sorts of encounters much more likely than back home, especially in June.