**35) M.V. Fort Calgary 21893 GRT 131090 BHP**
**Singapore 3/9/81 - 19/10/81 Durban R.S.A.**
**36) M.V. Fort Calgary Re-signed on articles.**
**Durban 19/10/81 - 2/2/82 Inchon South Korea.**

This trip demonstrated the various climate conditions a seaman has to face. Singapore, where I joined is warm and humid all the year around, with relatively calm seas. Working on jobs anywhere around the ship required the minimum of clothing. Even the voyage down to Durban was reasonable. When there, I was invited by a couple Alastair (ZS5MU) and Davina (ZS5GC) who were Radio Amateurs, to visit their sugar plantation just south of Durban. They picked me up from the ship and it was an hour's drive into the interior to their farm. It was a highly interesting visit, where I could hear the local dialect being spoken by Alastair. Lots of clicks and glottal stops! Their workers lived in some villages on the property, and were well looked after. Their house was a large open plan airy bungalow, with polished wood floors and a large covered veranda where one could sit in the evenings with a lovely view of the forest and sky.

The monsoons in the Indian Ocean kick up quite a swell, but are not really cold. Durban in October has spring weather and is reasonably pleasant. Then over to the other extreme. Korea, Japan and China are very cold during their winter, with sometimes bitterly cold winds, rough seas and heavy snow. It's virtually impossible to have too many clothes. Some heavy weather gear is carried by the ship, but it is up to the individual to have enough warm sweaters, socks and shoes. It's no wonder the average seaman has around 30 to 40 kilos of luggage.

I met Phil, ZS5RJ, again in Durban while we bunkered. Bunkering was, whenever possible, planned for the ports where the fuel is cheapest. Durban bunkers were generally good quality and cheap, so Durban was quite a busy bunkering port. We bunkered again at Los Angeles where again the fuel was cheap – if not of very good quality, for the trip across the Pacific to South Korea. On the way across the Pacific, I experienced a rather strange occurrence. I used to receive radio propagation bulletins from the UK long range station at Portishead. Sometimes, the US Coastguard stations would also issue propagation warnings if a severe solar disturbance had been sighted or was expected. In this case, a severe solar flare had been observed, and a so called "Dillenger Fade" had been forecast. This is where the ionosphere becomes so heavily ionised by particles from the sun, that it absorbs all signals instead of reflecting them. The result is a radio "blackout" lasting from minutes to hours over the sunlit half of the globe.

I had received the warning earlier that a huge solar flare had occurred, and to expect propagation disturbances. As these flares can also affect the ship's compass due to the large circulating currents they cause in the upper atmosphere, these warnings are of direct importance to shipping. I was engaged in the perennial job of correcting the admiralty lists of radio signals. The receivers were on, one tuned to 500 KHz, the other to the US Coastguard station at San Francisco, NMC on 16 MHz, sending out its call tape. I was waiting for it to send its traffic list. Suddenly I noticed that the frequency seemed to be shifting, the note changed and I had to re-tune the receiver. The frequency shifted higher by about 500 Hz and the signal rapidly got weaker. Within 15 - 20 seconds, the signal became fluttery, virtually unreadable and then faded out completely. The radio noise level increased and the complete short wave spectrum was dead. Not a signal to be heard anywhere. It was a strange feeling, sitting in the middle of the Pacific, listening to the radio chatter going on around you, then suddenly being completely cut off from the world. It brought home how dependent we had become on radio, and how alone we really were.

I got several phone calls from people around the ship asking if the communal aerial had a fault, as they could receive no broadcast stations either. The Captain came in with some messages to send, but I had to tell him we were temporarily cut off from the world. Slowly, over a period of several hours, signals returned, but I had to await nightfall before I could send the Captain's messages. The shortwave bands were disturbed for days afterwards, causing me considerable problems. I still puzzle over that change in frequency though. The receiver was synthesized and very stable. The transmitter also. I presume the solar blast pushed in the higher F1 and F2 layers, possibly even disrupting them and this caused the frequency of the reflected signal to change due to Doppler shift. Then the D layer became so highly ionised that it absorbed all signals. At the time however, it was inexplicable.

During some of the quieter periods on watch, I decided that it might be a good idea, after all this time at sea, to learn something about the Black Art of astronavigation. I knew quite a lot about electronic navigation, and I knew the theory of astronavigation, but practice and theory are two totally different things. I sat down with the 2nd and 3rd officers to learn how to use a sextant, take sights, then to actually work out and fix a position. This took several weeks in all, but towards the end I could get a position almost as well as they could – though it took me somewhat longer to work out all the maths.

As in all astro nav, it's not so much where you are, as where you were! By the time all the mathematics are done, the ship can have moved 5 or 10 miles. There is also always a circle of uncertainty, which depending on weather and seeing conditions could be 30 miles or more in radius. It was called a "cocked hat" due to its typical shape and a not true circle at all. This is fine for deep sea navigation, but landfall could be a bit tricky if we had no other means of finding our position. I now have utter respect for the old time sailors. They must have had some very worrying times.

Our 2nd officer could cheat, he had a pocket calculator which he had programmed to do a lot of the hard work for him. We had large books of tables for reducing the work still further. Our time keeping was very exact thanks to modern marine chronometers, and with satellite navigation, our times were within milliseconds. How the old time navigators would have envied us. I learned how it was even possible to take sights using Venus during the day. It is really amazing what modern instruments and a little skill can do.

Whilst berthed at Inchon we experienced a heavy snow storm, and it was very cold. Our ship had just received some Christmas presents from the Missions to Seamen. This is a church organisation for seamen, and they do some very good work around the world relieving some of the hardships that seamen have to face. The present I received was a black knitted woollen hat. It was invaluable in Inchon in winter. Temperatures were a good way below zero, and the chilling winds needed good clothes. We had received weather fax maps showing minus 40 degrees in mainland China and Russia, but thought South Korea would be a reasonable temperature. Most of us were not fully prepared for such conditions, and I lacked a hat. I still have the one I received there, and it's just as good now as it was then. A silent and heartfelt "Thank you" to whoever knitted it and donated it.

One evening we had a most tremendous snow storm, blown in from the sea. I was still aboard as it was too cold for me ashore. Some however had gone, and were stuck ashore until it abated. I remember standing on the bridge, watching the snow swirling around the deck lights, quickly building up in drifts on deck and ashore. The ferry out to the ship only ran infrequently, and refused to go out under such conditions. We were berthed at an outlying pier, and crew were not allowed to go through the industrial complex to get ashore. Some got very cold and wet waiting for the boat back to the ship, and were heartily glad to be back. These are some of the less pleasant sides of going ashore.