

On November 15, 1939, the *North Star* set sail from the Boston port bound for Philadelphia under the command of Captain Isak Lystad. There she loaded more supplies and a supply of meteorological instruments. On November 21, she sailed down Delaware Bay enroute to the Panama Canal.

Chapter Three Communications

During that period of history, it seemed that our method of receiving and sending messages was adequate with the equipment we had been using as we were able to do so with utmost efficiency. Compared with the modern technology of today, one wonders how we were able to operate so well.

Messages were sent to Station NAA in Washington, D.C. It was quite an art to be able to handle the traffic that particular station generated. They handled radio traffic for most Navy ships that were away from the East Coast and on special assignments, as in our case. There were major radio stations in San Francisco, Honolulu, Guam, the Philippines, as well as Balboa, Panama. It was all dots and dashes and most operators prided themselves in being able to handle traffic with one of those major stations.

The Navy had developed a set of "shorthand" messages called "Z" (ZEBRA) signals. By using the "Z" signals it was possible to transmit lots of information in a very short time. Example: ZSA4-ZAA5 told the receiving station — "I hear you strength 4, send at a fast clip and I have 5 messages for you." The receiver comes back with a ZSA4/5K — meaning, "I hear you very well, start sending your messages." The commercial radio operators had a similar set of "shorthand" messages called "Q" signals. Normally, we would tell the operator in Morse Code: "I have 5 messages — one priority — 2 routine — 3 deferred." When they acknowledged our code, we keyed them again with a "Z" signal to let them know how we were reading them, from strength 2 to 5. We were then told the kind of signal they were receiving. Radio operators sat at their stations in the shack for long periods of time performing their tasks. When we received the signal to transmit at the recommended strength 4 signals, we then knew to send at a pretty fast clip. When our transmission was complete, the operator would say in code "end of message." The receiving operator would tap his key and say "R-K" meaning "Keep sending, friend, I am with you." Then we would go into the next message.

Most of the time, we had a duplex operation; that is, if we were sending and the receiving operator missed a word, he would touch the key on his transmitter and when we heard his signal, we stopped sending. The moment we stopped sending, he would repeat the last words of our message that he had received which meant to us — "Go after the last word." When we were finished, he would say, "I have a few messages for you and we would key "K" — meaning "Give them to me." All of the operators were tremendous professionals.

If the weather was bad, we naturally had to send more slowly and we would find ourselves repeating more messages, but this was minimal. The signing-off key was "TKS" — meaning, "Thanks!" Each message was followed by the sign letters of each operator. Mine was "JD."

This type of communication developed into a camaraderie and closeness between operators which, I am sorry to say, does not exist today due

to the personal touch being replaced by the electronic age. Admiral Byrd sent long-winded messages; 400- to 600-word messages; each one took a long time to send at one sitting.

Today, there is a sophisticated system of satellites, jammers for jamming radio signals, coders and decoders. One is lucky if the original signal gets through. I am not knocking modern technology as it has improved communications a hundred fold — that's progress! To us oldsters, something is missing. It takes operators to operate the machines, but the procedure is different in that discs and memories are used in computers at send and receiving stations with voice printout, simultaneously. Since I am an ex-radioman, I have mixed emotions about the changes. I come from a different era. An era of dedicated radiomen. I am afraid we are a dying breed of "dots and dashes!"

All of our radio equipment was tested and retested before using, but like anything else, something usually malfunctions when it is needed during operation. There were two transmitters aboard the *Bear*: A 500-watt crystal control and a smaller one — a 100-watt non-crystal control set. Clay Bailey, who was head of communications, made certain we had new and reliable equipment with which to work. Not only for the *Bear* but for the two stations at the East and West Bases at Antarctic.

The 500-watt set was capable of working on very high frequencies — 16720 kilocycles. The high frequencies used during 1939 were not as refined as one finds in today's satellites. Higher frequency transmitters were coming into their own about that time. Most of the local operations had a relatively low frequency with which to work, but in the Antarctic, we used the high frequency.

The smaller 100-watt transmitter was standard issue by the Navy. There were two Hammerland superpro receivers and a National receiver. National used to have SX for their designations. I cannot recall much about it, but I do know it was a good piece of equipment. There were plenty of spares in case of a breakdown.

Later, after the ship was underway, Swede and I realized that the antennas supplied for the radio shack were insufficient for good communications, so we designed a very simple standard one called a doublet quarter wave. It was designed to be used for the most effective frequencies on which we planned to work. Most of the Navy frequencies were 4235 series and 4205 series. The designed antenna was tied between two of the ship's masts and it was very effective. It allowed us to receive signals from very long distances with good reception and readability for it helped to keep out interference from other signals.

Once-in-a-while, due to circumstances beyond our control (atmospherics — as we called them), our signals were closed out and we could not receive or send messages.

An added note, Greenwich meridian time was observed which helped radio operators and helped in the magnetic and cosmic ray observations for team members at the bases.

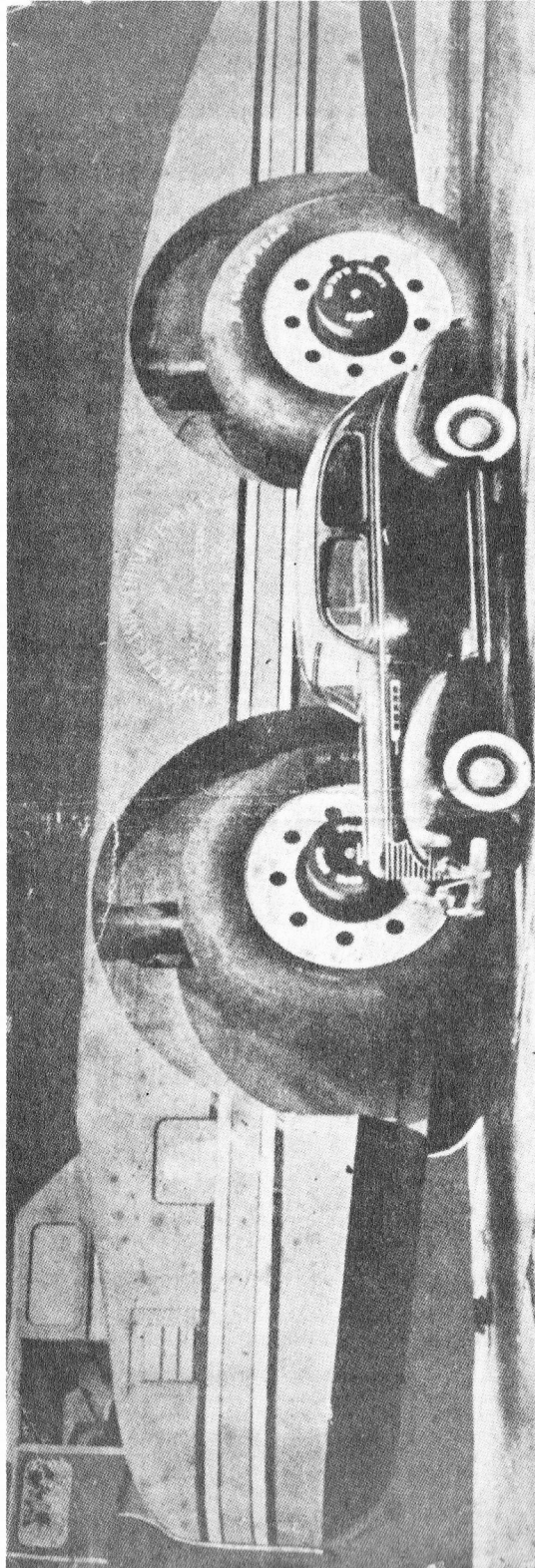
Infamous Snow Cruiser

Before this expedition got underway, a group of senior members met with experienced members of past expeditions and agreed there had to be a better way to travel over the icy land of the Antarctic than to depend exclusively on dog sleds and sledging. Dog sleds, however, were probably the most reliable. A division of the Armour Company felt confident they could build a machine that would revolutionize polar explorations. They came up with plans for the Snow Cruiser. It was gigantic in size and required a great deal of engineering to construct. It could transfer power to any wheel or any number of wheels upon electrical command. The wheels were slick-tired, 10 feet in diameter. Some of the people in the States may recall the news coverage of its construction and its eventual transportation as it was shipped over the highways. As it came to one very low overpass, it was impossible to travel under it. The idea of lifting it over by hoist was an absolute impossibility due to its weight. It presented a problem.

The true story goes that a youngster standing by watching his elders scratch their heads for a solution declared very innocently in a youthful voice, "Hey, mister, why don't you let the air out of the tires?" His elders looked at each other dumbfounded and a little annoyed at a small tyke solving their problem. You guessed it!! That is exactly what they did — and it worked! With the tires deflated, the vehicle stood 15 feet high, 55 feet long and 20 feet wide and was able to proceed without further delay.

For effectivity on the snow, sled runners were attached to its toboggan-like bottom. (More about this vehicle further on in the narration.)

Now, — on with our story!



It was gigantic in size and required a great deal of engineering to construct. The wheels were slick-tired, 10 feet in diameter. With deflated tires it stood 15 feet high, 55 feet long and 20 feet wide.

Chapter Four

First Trip to Little America III

Establish West Base

I graduated from China High School in 1935 and enrolled at Cheniers Business and Radio College in Beaumont, Texas where I studied and completed a course in communications, i.e., radio and electricity. I obtained a commercial radio license upon completion of my courses. When trying to find work in that field, I found the East Coast shipyards were all tied up in a strike. I decided to put my newly acquired education to good use and concluded a good place to begin would be with the United States Navy. Upon enlisting in the Navy on March 11, 1938, I suddenly realized that I would be leaving my little home, my father Theophile Daigle and my sister Willene who all lived in China, Texas. (My mother Ida was deceased.) I was to seek adventure and have an opportunity to "see the world" as promised by the Uncle Sam posters. As it turned out, my Navy enlistment encompassed 20 years of my life, since I chose to make it a career. I would like to point out that my career in the Navy was based on the education I had received at Cheniers.

After enlistment, I was sent to boot training at the Recruit Training Center in San Diego, California. From there I went to the Naval Air Station at Coronado, California as a radio operator. Inasmuch as I had attended radio school and received a commercial radio license prior to enlistment, I was detailed directly to the air station as a radio operator.

One of my first acquaintances in this new career was a radioman named Clay Bailey, ARM 1/C (Aviation Radioman First Class). During our conversation, he asked me if I would be interested in going with the Byrd expedition to the South Pole. I had no idea what I was getting into — but, I said "Yes!" He knew I had a commercial radio license, second class rating, so he recommended I serve as radio operator on the *USS Bear*.

The whole aspect sounded so interesting and adventurous. I pondered the offer for a while and am glad I decided to take part in this venture, as the radio played a big part in the overall exploration of the expedition. In early 1939, Clay received orders to report to Washington, D.C. After he arrived in Washington, D.C., those of us that had been recruited received a letter confirming our appointment, and it stated that the Navy would release us from duty in order to carry out this mission. The letter also stated that the Navy would be the prime sponsor of the expedition along with the Department of Interior.

After receiving our orders, "Pookey" Odom and I reported directly to Boston. There we were assigned to the *USS Bear*, in charge of readying the radio room with proper communications equipment. Elmer L. (Doc) Lamplugh, RM 1/C, USN, was in charge of communications at the East Base that was to be established on this trip, and he helped us to set up and tune the equipment on the ship. (I learned, in later years, that he had been killed in an accident in WWII — not related to the war.)