

TRAVELS WITH CHARLIE--PART II

Barry Clark

Synopsis: I take a 150 pound clock named Charlie with me to Moscow for a VLB experiment. On the way, we visited Holland and Germany. After various adventures with customs officials, I at last get permission to take Charlie from Amsterdam to Moscow.

I was getting rather impatient about getting to Moscow by this time, and had gone ahead and made reservations for the next morning, despite the fact that I couldn't get a direct flight, as I had had before, but had to go via Copenhagen. So Saturday morning I showed up at the airport at eight, presented my multi-initialed and rubberstamped piece of paper, and was permitted to check Charlie, as baggage, on the Copenhagen flight, rather to the relief of the local customs boys, I think.

In Copenhagen, I spent my stopover admiring the scenery--that is, the baggage department scenery, as they unloaded Charlie's box from KLM, changed him from one cart to another, and drove him out to Aeroflot. Then off we went to Moscow, not over an hour late.

So there I was, in the Moscow airport, carrying a 150 pound clock, with no one to meet me (because my telegram would not be delivered for two more days), and with the clock battery pack using its last few minutes of capacity. After some time, I managed at last to attract the attention of an English-speaking tourist aide. "Could I plug the clock in and let it charge its batteries?"

"It would be better to do it at your hotel. In any event, it is not possible to do it without clearing customs."

"Could I call my friends by telephone to help me get my clock through customs?"

"It would be better to do it at your hotel. In any event, it is not possible to do it before clearing customs." With a final "Nothing can be done", she vanished into thin air and left me to face customs.

So there stood Charlie and I, neither of us with more than a minimal grasp of the language, and one of us capable of doing nothing more than ticking. Furthermore, Charlie's battery voltages were getting disastrously low, and he would shortly stop, and all the high

quality time with which we had filled him through so much tribulation at Bonn would quickly leak away. So, with some trepidation I got in line for a custom's inspector who had been pointed out to me as speaking a little English. As I hefted Charlie onto his counter what to my delighted eye should appear but Matveyenko and Kogan from the Space Research Institute, and Marshall Cohen and his daughter from Caltech, who were arriving for the same experiment! With Kogan to translate, Charlie and I quickly cleared customs (the inspector seemed more interested in my large collection of paperback books and in the Dutch and German coins I had picked up for my kids than in Charlie). Safely clear of officialdom, we went outside and sat down on the sidewalk. (Kogan produced the Russian proverb equivalent to "It never rains but it pours", with the operative noun changed to Americans; he had come to meet me twice already, unsuccessfully.)

At this point Charlie's remaining life was measured in seconds. His batteries had decreased from 27 volts to below 24, the limit of the meter. His power supply had fallen out of regulation, and the stream of electrons was starting to congeal in his arteries. But, miracles abound! The Russians had brought with them a battery of their own, because Marshal Cohen was carrying a crystal oscillator which he was keeping warm (he hadn't had it filled up with time because it is so much leakier than Charlie).

I didn't dare disconnect the main batteries and plug in the Russian 24 volts directly, because I was afraid that the fifteen minute reserve battery was too low to carry the clock even for a few seconds. So we took half the Russian battery, and connected it to the inverter, which takes 12 volts DC and makes 60 Hz AC 120 volts, which the power supply converts back to 24 volts DC. Comparing in my mind the size of their battery with Charlie's own, I concluded that it was good for about an hour; which, coincidentally, is the time it takes to drive from the airport to the hotel.

The next problem was that Charlie would not fit inside the car's trunk, and it is apparently illegal to drive in the Soviet Union with the trunk ajar but tied down.

--continued, next page--

(Charlie had fit nicely in the trunk of a rented Opel in Holland and Germany, but in other areas the Volga is a larger auto.) Finally, Matvenyenko vanished into the hinterlands, and returned in a surprisingly short time with a taxi. Charlie and his keepers (Kogan and I) were banished to the taxi, while the others rode off in the Institute car. Charlie rode inside the car, and I held my arms around him to keep him from scratching the dashboard (most Russian drivers take a fierce pride in their cars) or disconnecting his wires.

The next problem, at the hotel, was to get Charlie up to our room. The Academy of Sciences Hotel in Moscow has two small elevators. (I could write a separate treatise on "Soviet Elevators I Have Known" with an appendix dealing with stairs.) It was clear that, at most, Charlie and two people could fit in an elevator. Further, it was a rather busy time for the elevators, and they were carrying five or six people at a whack, and still there was a queue. Now the Soviet ethos on queue waiting is a sophisticated and developed one, with subtleties far beyond my primitive sociological insight, but it soon became clear that, as far as the queue was concerned, Charlie was an unperson, and that we who chose to associate ourselves with him could darn well wait until after the queue had dissipated. But after a while, us pushy Americans managed to commandeer an elevator and hijack it to the third floor. We hustled Charlie into the room, exchanged his European type line cord plug for a Soviet type, and plugged him in at last to the good old wall socket.

Sunday was spent in shameless weekend tourism. Monday, among other things, I went out to the airport to see if the other VLB gear had safely arrived (it had) and whether it would fit in the cargo airplane the Institute had chartered to fly it to the Crimea (it would, though there was some confusion about some crates, whose weight in pounds was written on them, but was marked kilograms).

When we got back to the Academy Hotel at dinner time, after about nine hours absence, we found Charlie unplugged. The hotel maids, deciding that a ticking box with glowing lights and American labels must be up to no good, had unplugged him for the safety of Hotel and guests. Fortunately, such a weighty decision apparently involved a large discussion to decide

the question. This conference, what with scheduling problems and the like, did not reach its decision until 3:00 PM, and Charlie had been on batteries for only 3 hours, and was not discommoded at all.

The next morning Charlie and I went out to the airport to emplane for the Crimea. Since he was a bit heavier than the usual suitcase, we carried him up the stairs ourselves (instead of letting the Intourist lady do it, as foreigners usually do) and plunked him in the plane's luggage compartment. Three hours later we were in sunny Simferopol in the middle of the Crimea, and I was again met by Kogan and a car hired by the observatory. This time, by removing the lining, we managed to get Charlie in the trunk with the lid closed. Charlie indicated that he had about three hours of battery life left, and it is about a three hour drive from the Simferopol airport to the observatory. Therefore, it seemed a good idea to connect the inverter which would let Charlie run from the car battery, though not charge his own batteries. Kogan and the driver concluded that making this connection was not a suitable activity for an airport parking lot, so we drove out and parked by the roadside a few miles toward the city of Simferopol. A crowd of small boys materialized from nowhere to watch the operation. They were, however, more interested in the car than the wiring. The car was a new model Volga, which looks like a 1963 Pontiac, and is still rather a rarity. (The old model Volga looks like a 1953 Pontiac, and I never ride in one without a pang of nostalgia for a car of that vintage which was one of the cherished possessions I brought into my marriage which my wife regarded as totally disreputable and undesirable, along with the suit I graduated from high school in.) One boy asked the driver how much the car cost, and he replied, "Fifty kopecks."

Mike Balister said the clock could be run this way from twelve volts, though the batteries could not be charged. However, the electromotive force of the lead sulphate reaction appears to exhibit a preference for political or economic ideologies, and it ended up with the car battery supplying about a fourth of the power, and Charlie's internal batteries the rest. Figuring that we were at least preventing disaster, we went on out to

--continued, next page--

the observatory without incident, with only a brief stop at Yalta to ask Charlie if he was going to make it OK.

The next day the rest of the VLB equipment arrived. There was also supposed to be a crane, which would lift the heavy tape unit up into the antenna. But late in the afternoon Ivan Moiseyev came up to me and informed me that "The crane will not." So he rounded up all of the observatory's male employees and they picked up the 650 pound box and lifted it ten feet into the antenna base.

We then fetched Charlie from his nest in the lab building, and carried him over to join his friends. I began to hook things up to check for the dislocations of travel. As I worked hooking things up, I kept getting these annoying tingles as I touched our equipment. Muttering things about "ground loops" and "induction", I asked for a ground wire to get rid of the problem. I was handed one, but when I approached our equipment with it, I was rewarded with a shower of sparks and a firm "thunk" as the breaker tripped. It seems that somewhere in his power supply, or as Mike Balister later theorized, in his power cord, Charlie's case had become connected to one side of the power line, and both sides of a Soviet 220 volt line are at 125 volts above ground. So long as Charlie was in his wooden crate, he didn't bother anybody, but when we connected him to the rest of the equipment, he was well on the way to booby-trapping half the receiver when we caught him. We very quickly converted him to 110 volt operation, where one line is indeed neutral.

This has been the story of how Charlie and I carried the time from Ghent to Aix, and it was apparently as hard on Charlie's nerves as on mine, and on those of the many people who helped me along the way. On his return from the Soviet Union, Charlie had to be remanded immediately to the intensive care unit of the local rubidium clock hospital.

You cannot strengthen the weak by
weakening the strong.

--Abraham Lincoln

LETTER TO THE OBSERVATORY

National Radio Astronomy Observatory
Green Bank
West Virginia

Dear Sirs

Once before I sent a letter on contacting people in outer space and suggested the morning star the original wormwood. It is realized that this is the same as every body else's guess. But let me explain where this theory comes from. It is recorded in the Peabody papers Harvard University that there is a certain tablet namely "Tiponi" this tablet is still in circulation today its markings are said to be sacred never the less. These markings have been deciphered and the cypherings followed and the most extraordinary outcome was determined. The cypherings cover allotted tasks, and on one such task mission it was discovered that under Mount Zion there lies a giant solar sell. This ancient device was constructed many years ago under instructions that it was to put back in the sun when this planet's occupants were peaceful enough to except visitors from outer space. As an amateur Archeologist I was one of the people who went along on the question as to if the ancient instructions that go with the legend around Tiponi, were correct. Having had two looks at Mount Zion we are able to say that there is a secret chamber under this mountain. We have taken a look at the entrance, and are satisfied it still exists same as it was put there those many years ago. Now if by any chance you are interested in this Solar Sell, tread lightly its guarded well. We could still be coaxed to follow the rest of the instructions Tiponi give us and retrieve the Solar Sell. Are you interested? Last time I was there I was picked up as a tramp and imprisoned. I was only having a good look at the writings on the wall.

Food for thought

Sincerely
P H
