

## Ove Sjöström - The engineer on Radio Nord and Caroline North.



**Maybe** you know that the chief engineer on Caroline North was a Swede Ove Sjöström. He held the same position on Radio Nord.

I did a translation from a recording that he did on the Caroline North ship to send to a friend in Stockholm in the spring of 1964.

Here is the translation:

*First of all I want to thank you for the tape you have sent me. It is interesting to know that we sound so good in Stockholm.*

*I want to do a description of how the station is built here on MS Caroline. First there is a Gates mixer with two microphone channels where we are mixing the music from two turntable and three Ampex tape recorders. Then this is feed to a Gates limiter and then to one of the two Continental Electronics 10 kW:ers. The signal is then feed to the half wave folded unipole.*

*In the studio we have also a Gates modulation monitor and a Gates Q-amplifier. As you can hear most of the equipment is American.*

*The studio I am sitting in just now is approximately 2x4 meters; a little studio. I am speaking about one meter from the microphone so you hear the background noise from the generators. This noise is not going out over the air that much as I have cut out the frequency band now, so that at 250 cycles it is approximate minus one dB; at 30 cycles it is minus 10.5 dB. From 500 cycles up to 15000 cycles it is within +/- 0.5 dB, so in fact it is more or less a hi-fi sound on this station and it is great to achieve that.*

*The generators are two Mercedes diesels each of 125 hp with a switch panel from which everything is switched automatically. Not yet can we start the generators from up here, but I am preparing for this to be possible.*

*The working force on board is my self as chief technician plus tree panel operators. Transmission hours at the moment are from six in the morning to nine in the evening and then from five minutes past twelve to three o'clock in the morning. The three hour intermission is due to the interference from the Czech station that is far to annoying during that time. There are certain considerations to change the frequency and that we will probably do in the autumn. They are right now involved with listening after a better frequency. The antenna makes it possible to go down as far as 1175 kc so we are having great possibility to move on. And if we can go down to 300 meters this also means that we are going to get a larger coverage in our ground wave, which in fact matters most to us.*

*At the moment there are two disc jockeys on board and they are having five hour each and for the rest of the time its music from tape and records. At the moment we are anchored outside Ramsey on Isle of Man at about 5 kilometers from the beach.*

*Around the end of August, the program will probably be changed completely, now when we have merged with Atlanta. Then all recordings will be done in London. At the moment they are building studios, four of them, to make it possible to arrange recordings from there and then they are double them off and send one copy to each ship. So we are going to broadcast the same program at the same time from both of the ships and probably all of the programming to be on tape in the future and nothing directly from the ships as it has been done up to this date.*

*On the marine side we have a captain, a helmsman, four seamen, a steward, a chef and four in the machine. Why this large force? If I compare with Radio Nord it is largely because when the ships reach a certain class of size they must, according to the insurance conditions, have a certain number of men onboard. So and so many seamen and so and so many in the machinery. If we were under 500 tons, as Mi Amigo is or as she was named Bon Jour outside Stockholm, we could do with much less people. But now in fact we need all that crew and that will continue for the next half year because the is incredible much work to be done on this ship as the ship is from 1928 so it is not exactly up to date.*

*I notice myself that I am mixing in some English into my Swedish, probably due to the fact that this is the first Swedish I have spoken for about three weeks, otherwise it is only English. I had another technician also from Radio Nord to help me but he has quit and returned to Sweden. I myself; I don't know yet but that will the future indicate....*

*Well, in fact I do not know if there is so much more to talk about other then that I have changed the tape that you gave us to the tape we are using and that is professional tape and as far as I know it is not possible to buy it on the market. So it should be somewhat better, because you should get something in return for the help you gave.*

*Unfortunately I have been very little in London at our head office and because of that I have not been able to collect any data on the station, photos and so on. Now, next time I am going to London in middle of August then I shall bring home all the photos from this ship, the studios in London and information that can be of interest for you.*

*Maybe you have noticed that we now have changed frequency one kc. That I can say is on your merit as I fully based my frequency adjustment from your information. So now we will be exactly on the same frequency as the Czech station. But still he interfere far too much on us because he cut through us too strong, so that our music and speech is not understandable.*

*I think we end this by playing one of the disc jockeys theme tunes, so farewell and thank you. I call you when I come home in mid August so until then cheerio from the Irish Sea. [He plays Caroline with the Four Tunes]*

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***Ove Sjöström SM7XBI was chief engineer on Radio Nord and later also on Radio Caroline. You can see him on this photograph sitting in the control room on Bon Jour in 1961. He held a speech to Ham radio operators during an exhibition and seminar called "Radio in Handen" in Stockholm on 2007-04-14. I did a translation of the speech and also from a long round table chat taking place afterwards. I hope this is of interest.***



I am surprised that so many are interested in the old Radio Nord, but there seems to be a huge interest. I hope you excuse me for being a bit nervous, but it is a while since I did such a speech. The last time I had a speech was at the local club out here.

It all started back in the 1960's when I got a telephone call from a buddy of mine who I knew was an audio enthusiast. He was involved with audio recordings and he was traveling around with local bands to assist them to get a proper sound. Together with him I had build a couple of audio amplifiers and so on.

So he called one day and told me that "I am in Copenhagen and we need your help down here because the boys that was going to work with a radio station here have fallen out with the Yankees so they where sent home. How quick can you get down here?" I was told to go down to the head office at Kammakargatan and have a talk with Mr. Pelle Lönndahl who was the head of studios. "There you can get all of the details."

So when I arrived and was let into the office I was mightily impressed, because Jack had looked after so that everything was just first class. Studios, equipment and everything were all in Jack's sign.

I was called in directly when I arrived; Pelle came out to meet me because I registered my arrival at the switchboard. Then we went in to meet Jack and he was like that; either he was 'up there' or 'down there', it was rarely 'in between'. So after five minutes he asked me if I could start working now immediately, so his secretary could make a call and reserve a ticket.

But I told him "I have to go home and I must talk to my present employer to do arrangements and find how to work that out." So I called SM5BDL, whom I worked for doing TV repair works, to ask and he told me "Hell; that is a funny gimmick to do – just do it!" So in that same evening I went out to the Bromma airport and I had a ticket down to Copenhagen and that was the first time I ever had a flight and that was in a Caravelle so that was a kind of a vertiginous ride. I had never flown before and then one starts in a Caravelle! It is not like an ordinary plane that goes up slowly like this, but that was going strait up!

I came down to Copenhagen and was picked up and driven out to the ship. The transmitters was fitted, two Continental Electronics on each side of a combiner. So there was possibility to run both transmitters simultaneously into the antenna but in practice that was never done. We tested it now and then just to see if the system worked. But we always used only one transmitter and that was the

same on Caroline because we wanted to have one in stand by and that proved to be quite a good idea because something happened during Radio Nord time at two occasions. The generator to the radio station bolted off and the power tubes where destroyed. That was those ceramic tubes, three of them giving 5 kW each. The fan stopped and we drove the tubes quite hard so all those tubes went kaput. At the first occasion we had no spare tubes, so we swiftly ordered home new ones, in the meantime we had that other transmitter to use.

So we worked almost around the clock down there to get all in order. The transmitter side was ready, but on the studio side there was still some work to do. I also had the opportunity to learn the special technique to measure antennas with the reactance and impendence and that whole part. What they did not knew about and what I did not know about and nobody else knew about was that it was crazy to be in a harbor doing such work. To measure on an antenna about 38 meters high in the neighborhood of the harbor cranes. That was a problem that surfaced also later.

Jack was very eager to come on air, because he had run a very hard PR campaign to get started at a certain date and the whole PR campaign was dependent on that, so he put us under pressure down there. The Yankees thought that everything was ready and it was going to work, so they went back to the states to celebrate Christmas.

So we started the travel and the journey was,,, oh well,,, Yes, I was so very seasick that if someone had thrown me overboard I had just thanked him for the help and that is for sure. That was something almost everyone experienced, we became seasick only once and then we where cured from it in some way, that happened to all except in one case with a technician. I am not sure how that works. This bloke from Västerås got seasick every time he was on the ship, but at the same time he thought it was so great that he steeled himself just to take part in it. So already then people thought it was fantastic.

So then we came up to Stockholm and were about to drop anchor, that was at a place somewhat closer to Stockholm then we used later. (If I remember correctly, later we moored outside Nynäshamn). Then we discovered that they had forgotten to tighten the guy wires to the mast so that the mast and the guys rattled. The captain got afraid and that was really afraid. We realized his fear when he ordered out a life boat and he told us to abandon the ship as the mast was going to fall down and the ship was going to sink.



**Test transmissions with American Archie Mesch measuring and listening. Also Head of Machine Mr. Thure Andersson and in the stern, someone said to be a German fellow Mr. Knies.**

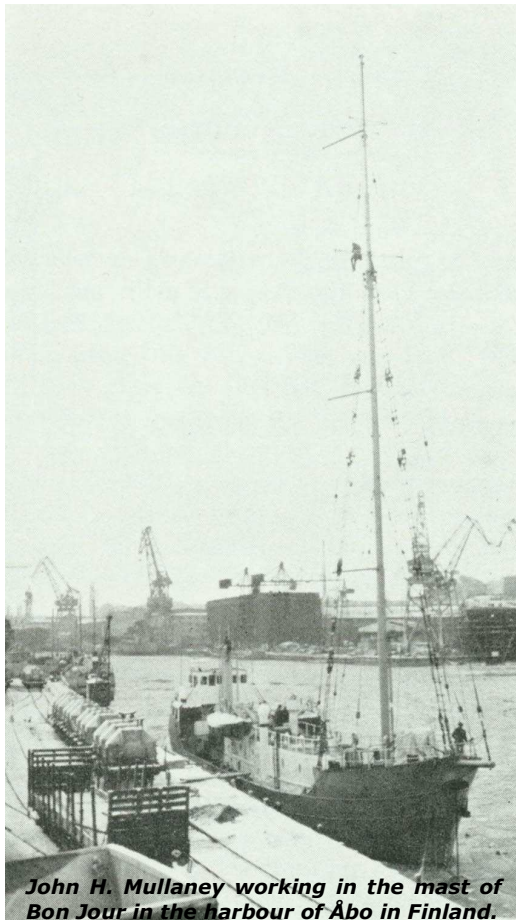
But when we helped him to lift over his bags to the life boat we heard some bottles clinking. And then we understood that a large part of his anxiety came from that. So after that it was totally prohibited to have alcohol on board. But as with every ban it was bypassed. Mostly because there was a popular habit particularly often with German cargo ships, those that had permanent routes between Nynäshamn and Germany, to come along our ship and then 'things' was sent over, sometimes German Cognac too! Occasionally we had some strange experiences; we had a lady cook and a lady

steward and both fancied the same helmsman and when both had got a bit too much drinking they started fighting.

A lot of things happen when people live so tight together and that put demands on what kind of people that can work in such a place. That is the same everywhere when you have to share space with others during a long time and sometimes under difficult conditions. Technicians, disc jockeys and newsreaders came out and they had to return with the next tender, they just could not take it due to different reasons.

One newsman came out and he was about to go on duty in the morning and we as technicians had the same working hours as the seamen, four hour spells on duty and eight hour rest and I went down to wake him up and he was not even communicative so to speak, plus that there was two empty bottles that he had brought with him out. So I had to wake up another newsreader to take his place. So in that case Jack was absolutely right, that all alcohol had to be prohibited. Well, all that disappeared as everyone understood that it was just not possible to have such a job and not manage their drinking habits. Those situations could be tedious at times.

But as we anchored up and started the test transmission, or it was never the issue as we where ordered off the ship and abandoned it. Jack did not know what to do and he was really furious. So I was accompanied by Pelle Lönndahl and we had to drive out to Morsta Farm somewhere in the direction of Norrtälje (north of Stockholm) where he had his summer residence. So I had to try to explain to him what had happened and he was really crazy because there the ship was deserted so anybody could take it in possession and demand insurance money for it. But he had plenty of contacts so he called up ,, eh,,, I do not remember what the name of that tug company was but two of their tugboats were named Bill and the other was Bull. So they went out there and took care of the ship so then I called up Jack and told him "We have control of it".



**John H. Mullaney working in the mast of Bon Jour in the harbour of Åbo in Finland.**

Then a couple of days later we where allowed on board and sail her over to Finland where Jack had contacted the Wärtsilä Yard in Åbo. Over there we put the ship in order and it worked pretty well. But we had problems, partly the same as we had got in Copenhagen, when measuring the antenna. The values changed all of the time and we could not find out about it. We made test transmissions in the harbor and everything looked good then all of a sudden the values changed. As this antenna was so short it was sensitive to very small changes that upset the settings totally and the transmitters shut down. So the specialist that had constructed the antenna came over from the states. He was an employee in the United States defense and was afraid to come so close to Russia. The Americans in those days were very afraid of the communists. They found communists in every corner. But he came over and I saw him walking around making observations and he found the reason; those huge cranes moving about on the dockside and they were about the same height as our mast and that changed all our settings. But all that we managed to solve in the end. Further more he got new ideas how to improve the antenna even further and we change it to a type of triple folded unipole. It was built up with three tuning boxes one in the front and two at each side of the ship and every box contained a huge vacuum capacitor. This arrangement made it possible for us to get a very low radiation angle. Later when we came out to our anchorage outside Nynäshamn they measured it with

an airplane and the results showed that the power stroke the surface of the water more or less. On some occasion I want to construct such an antenna and that could be interesting to use on 3600 kHz. I never saw something like that again.

But we had very high current and voltages on the isolators on the top of those boxes. At one occasion when the transmitter was switched on a seaman came rushing down as he had observed a seagull on the top of the isolator where we had a corona shield and this bird was totally blown away nothing but two feathers was left and that was all. And then later that happened again we got strict orders from the captain that we were not allowed to start the transmitter before we had told them on the bridge so they could walk around and scare away the birds. They believe that a seaman killed at sea is resurrected as a seagull.

Then we observed other phenomena when we broadcasted during spring and autumn when birds of passage were never passed the vessel closer than 2-300 meters. So in some way they have a skill to feel the radiation. But during the Sunday nights into Mondays when we closed the transmissions, that was only six hours a week for maintenance; they came and landed on the ship. So at occasions like that we had to go around and scare them off before we started transmissions.

That could be a bit tedious at times because we had a time to keep. Many times they came during bad weather, fog and things like that, and the birds was fairly exhausted. So we made sure they were not close to the antenna tuning boxes but we let them sit on the gunwale of the ship and anywhere else to let them have some possibility to rest for a while. But when we started the transmitter they felt uncomfortable and left. Evidently they have some possibility to feel radio waves even on that low frequency that we used around 600 kc.

Well, when we finally came in position we got further practical problems. Those tuning boxes we got in Åbo where built in plywood and that proved to be far too feeble out at sea. So some blokes from Finnboda Yard came out to build new boxes from sheet metal and that was robust stuff that survived.

Continuously we had to tune the antenna boxes during maintenance breaks because everything moved. We found out that the metal plates of the hull moved, so during the last days of Radio Nord almost every plate was connected together with copper braids. We had copper braids everywhere; I do not know how many hundreds of meters of copper braid we used. We engaged so the machine crew welded copper braids as extra job. That was a pity it was not allowed to continue because during the last half year of operation we finally had the transmission facility in a perfect working state.

Also; we had to rebuild the studio because no one had really any idea how to broadcast from the sea so we got a somewhat wrong type of equipment. We had some record players, really some good Swiss-made units with a heavy turntable. They had figured out to use heavy turntables to maintain the rotation during heavy seas. But really it did not do the job and then the yanks had sent over racks with I think six tape players and a switch box to switch in one of the players to choose a song. Then one tape contained rock music, another country music and the other tapes with something else. Then you could shift between them and the idea was to use tape recordings that came out to the ship from town. But this showed not to work out well, so we rebuild the studio on board to be the same as those studios in town. That was with two Gates turntables, two Ampex tape recorders and two Spotmasters. This is also what we brought with us to Caroline and that was the perfect layout. This gave us a system that made Sveriges Radio crazy, as we could do it in the Luxembourg style. So we cued the records and hold them as they were spinning on a sheet of felt. So when we released the record with the finger tip the record reached full speed in 0.1 to 0.2 seconds or something like that; almost directly. So that made it possible to drive very tight.

Sveriges Radio used to broadcast half an hour music programs once a week. So when they announced a record there could be a 30, 40 or 50 seconds delay before the record started because they used a separated control room from the studio cursing slow action. This gave us a lot of enjoyment later, when they tried to speed up the action. But they had not the correct equipment to do it. They had the German type of machines, I believe Telefunken, but nothing was built for tight operation. Also we got one bloke, a newsman who had worked in Canada for several years and he had also worked as technician. He had learned that in the States the DJ himself operated the control panel. After a while,

those who made DJ shows from the ship found it better to operate everything themselves because they could decide everything more exactly. If you sit there divided by a glass window there will always be some delays and there will be some hesitations and so on. But when we did the news broadcasts it was done like that, so Seve [Seve Ungermark - former Radio Nord news editor and sitting in the audience] and I have been sitting against each other on numerous occasions running the news and things like that.

Further more, as I see it now afterwards, Radio Nord was somewhat ahead of its time. If it had come some years later then probably the authorities never had any possibility to close it down, because the public opinion had been too strong. As it was back in those days the public opinion was not strong enough. I know that particularly the liberal party was very actively opposing the Social Democratic Party's desire to close it down. As I understand it, they were afraid if we would interfere in politics and things like that, but that was clearly stated from the beginning never to talk religion and never politics and that never happened. But of course they had,,, of course as I understand it,,, but I am not sure I am correct,,, I got the feeling they had Sveriges Radio between their fingers. So they told them what to broadcast and they did. That was maybe an uncertain phenomena for them not having full control over a radio station out at sea.

Radio Nord paid all the taxes as far as I know. We who worked there paid our taxes, as we were officially employed in town, so taxes were drawn from our wages. They fulfilled their duties to that extent. So it was simply the fear that they could not control Radio Nord that made them want to close it down. Then maybe this with the commercials influenced them, commercials in those days was something very ugly that was not allowed to exist. And that was probably also a contributing cause. It was sad the way that happened.

Then we had a lot of visitors, we had a lot of fun. Seve; do you remember during the summer evenings we could sit out on deck and when boats came sailing out for a visit and to throw over messages, possible also to come on board to have a look and to hang around. Then we had a ploy as we sat with small fluorescent lamps reading the newspaper and the RF-energy was so strong that it lightened up them without difficulties. Many people came on board; they searched and found no cables supplying the lamp. They had no idea that RF could turn on a fluorescent lamp directly.



**Behind the window News Editor Sewe Ungermark with Björn-Fredrik Höijer to the right. Technician Björn öhlin in the front**

One big thing we had was the advertising campaign for Certina watches called "Certina Tic-Tac". This spot started with a melody 'Certina tic-tac the correct time is now . . .' then the technician was supposed to switch on the microphone, we had not any quartz watches in those days but we had got an other precision watch that they had sent out. Then you were supposed to look at that and say something like "the time is now fourteen o' two". But we had nice TV-programs at certain occasions and the lunch and dinner was not to be missed and often the studio was empty when we played those prerecorded shows, until all of a sudden the technician on duty heard "Certina tic-tac . . ." then everything had to move fast, rushing out on deck and into the control room to turn on the microphone and say the correct time. But everything could happen, someone could slip and "damn" came out instead.

I do not remember exactly but I think that was Kjell Bergström that came up with the idea with the news teleprinters. We had better news coverage than Sveriges Radio and the newspapers had got. That was because we monitored the international news agencies directly. As I see it, we got the news directly when it was sent from the USA to Europe. It seems that they went from USA to let's say London and from London to Copenhagen and then from Copenhagen to Stockholm and then it came out to Sveriges Radio and the newspapers. Then we had already broadcasted the news, sometimes half a day or one day earlier. That irritated them a lot of course. Well, I think I leave that to Seve [the Radio Nord news editor in audience] because he knows these matters better.

I remember one midsummer's eve when those two ladies that later came into a fight, they had arranged a nice and perfect holiday celebration. They had put dishes, food, etc on the table and made everything so nice and it was a calm day. They had really made it nice with decorations and so on. Then they came from the kitchen and each carrying trays with all those goodies. Lasse Branje who was onboard, he was an aero enthusiast and at exactly that moment some jetfighters came and they were flying very low just over the water surface towards the ship and close by they rose up vertical and started their after burn chambers. That happened with two jetfighters with the afterburner on, so the whole ship was shaking. So the ladies got really scared and we had to eat by picking the food from all over the place.

We had a terrific service on board. We had our respective cabins that we kept after and then those were cleaned up by the assistant of the steward. They went around and cleaned up, because boys staying together on a boat need someone cleaning around them or else everything will reach cave level.

Everything was excellent and far into the corridor with the cabins and ahead of the room with the water tanks Jack had built his suite; the owner's suite. It had a big sitting room and the Americans introduced poker games there once a week. And when the Americans went back, I took the liberty as the chief engineer to occupy that room and in fact no one objected. So; in general it was a comfortable place.

Now I realize that the time flies and I have to say something about Caroline.

One day I got a phone call, I lived with my parents in Sollentuna at that time and my mother told me that someone had called and asked for me during the day. She did not understand English but they understood the situation so they called again half an hour after I came home from work. That was Ronan O'Rahilly, he presented himself from London and he had a project on the way to start a radio boat and he had got information from the Americans that I had knowledge about radio boats. So he was asking me if I could come over to Ireland to help them to equip their ship.

We arranged so I travelled over to stay there for a couple of months. I said "it is OK if you send me a ticket" and he called again after a quarter of an hour and told me that my ticket was waiting at Arlanda International Airport. So then I travelled over to Dublin and that was another of those funny situations. I travelled with SAS down to Copenhagen and then I went with Airlingus from Copenhagen to Dublin and on that flight I was the one and only passenger so that flight was not very profitable.

When I Dublin they had rented a car for me and in addition I had the benefit to give a lift to some blokes that came from the London office. That rented car was later used by everybody so it was probably only to drive it to the scrap yard afterwards!

Anyway, when I came up to Greenore owned by Ronan's father, it is a little yard, an Englishman was already there and he had fitted the transmitters and started to build the studio and I saw that this job was huge. So I called one of my colleges from Radio Nord Jan Gunnarsson and told him "you must come over 'Janne' and help me to get this operation started within reasonable time".

So he came over and we managed to start the whole thing. We had already a certain routine on it so all went well. We had learned our lesson, like if we wanted to tune the aerial we should not stay in harbor doing that.

And talking about harbors I can tell you we had an emergency situation on Bon Jour when we got a gale of 35 to 38 m/s. I remember very well that one could not stand with the face up against the wind to take breath because the wind was so hard. You had to turn backwards to take breath and that was a bit awful.

Then the anchor chain snapped and in the front stay wire an insulator was crushed so we got flashovers. So we had to seek emergency harbor, so we went to Finnboda Yard in Stockholm. There I did something that amuses me even to day because people came from the telecom authorities and the costumes and also other authorities came onboard. The costumes as usual checked the alcohol supply at the captain's quarters and found nothing. Then they followed me down the stairs to the transmitter room and told us that they must seal the transmitters. I told them that the easiest way was to seal the main power switches to the transmitters. But at that time everything was already turned off, so I turned on the switch and told them that it now in the off position. So they sealed the switches in the ON position!

So we made test transmissions in Stockholm harbor. At one occasion some people came one morning wondering, because when the street lamps where turned off they continued to shine but following the modulation of the test music. So we transmitted with 10kW in Stockholm harbor and strange enough we never heard anything about it. We had people driving around to check how we came out but no one else noticed anything. I remember someone told me that they could not hear the news on the radio that morning because there were strange interferences and that must have been during the time we did these test transmissions.

But in England everything was routine as 'Janne' and I knew what to keep an eye on and what to do. We did a whole lot in Greenore that we knew we did not want to do at sea. The first thing we had to tackle was the fact that they had welded the Mercedes power generators, they had two generators for the power supply of the radio station and they had welded them into the hull of the boat to have them properly assembled. That was not a good idea because that made the whole ship vibrating coursing a lot of noise. So I told them that I



refused to go to sea if this is not done correctly. So they came back with some rubber attachments, lifted the generators so that they could attach those rubber feet. So in that way the noise got reasonable.

Anyway, the noise was still there when I sat in the control room, which was not that well sound proofed as the studio was in the beginning. And sometimes I used the control room as I answered listener's reports from Sweden by recording a tape telling about the radio station and who I was, what everything was about and what equipment we used. Now I have heard that some people still has got those tapes.

Later when we moored outside London, Ronan O'Rahilly made a phone call to the ship asking me if I was staying for some days. He did not know if I was supposed to go home or something. "Yes, I will stay fore a while", I told him. So he came out and we went into the cabin and closed the door. He then told me that there is another boat on the way called Radio Atlanta and that was the old Bon Jour they had bought from the yanks. He wondered if I could do something to delay them because they

had have a discussion and it was no good to get a competitor and they had reasoned that the first one that came on air was going to get the market. So he was asking me if I could help with that matter and I told him "of course I will do it".

So when the boat came we went over in one of our lifeboats and told them that we where two technicians that was once working on that boat and we where interested to come onboard to look how it looked like now. We knew that they had done certain changes. When we came onboard we realized that there were not done that many changes. 'Janne' and I had decided what to do, but 'Janne' was not too keen on the idea. So 'Janne' took the people aside so I went down in the transmitter room and did a couple of things so they were delayed I think for ten days until they received spare parts from the USA. That was enough so they got behind and Caroline managed to establish them self and took all of the market. Luckily such matters are now 'barred under the statute of limitations'. But I certainly do not want to meet the bloke that owned that station. I know that they had some suspicions as they realized the day after when they started the transmitter and then they got the information that two Swedes had been onboard and that we had been working on the ship before. But I made it in a way so that there was no evidence, I knew how to do it, it was not too complicated. That was not a pretty thing to do but I was young and wanted to help my company.

Then they merged and the ship I was working on was an old Danish ferry boat that had been sailing between the Danish isles. That was a large ship about tree times as large as old Bon Jour, so they figured out that this ship was more suitable to be used outside Isle of Man then the old Bon Jour was. So Bon Jour was left outside London and we sailed around the coast and anchored out of Ramsey in Ramsey Bay. There we where well sheltered and that was the location we used. We where on the air during the time we sailed to our position and during the evenings we saw, when we were sailing close to the coast, that the cars were on rows flashing their headlights towards us and we greeted them. It was a fantastic experience.

Afterwards my sons asked me about the celebrities that often came onboard. Many of those great groups where flown out to the ship using sea aircrafts. Then they came onboard and got interviewed and they often presented new record releases to get some PR. And my sons asked me why on earth daddy did not ask for a signed photograph or something but I was not into that.

[End of official speech] [42:16]

**Unofficial round table after-chat. Participants: Ove Sjöström Chief Engineer on Radio Nord; Seve Ungermark News Editor on Radio Nord; Top Class Anoraks: Ronny Forslund, Göran Lindemark and Ingemar Lindqvist.**

**Ove:** It is fantastic that my speech attracted so much of attention. But Seve has got a lot more details to share.

**Top class Anorak:** He was not with it all of the time.

**Ove:** Well, large part of the time . . .

**Top class Anorak:** No, he jumped off at midsummer. He just told me that.

**Ove:** Oh really?

**Top class Anorak:** He got sacked.

**Ove:** Do you really mean that?! I have no memory of it.

**Top class Anorak:** He told me. Kotschack was like that; he got a sharp temper.

**Ove:** Yes OK, ether everything was terrific or it was really bottom for him. I have got several memos left in my possession and he expressed himself very strongly. He could send memos like "Now

goddamn, you boys did a real grand job!" and then two days later another one came and he told us how lousy we were and that he personally was going to come out and throw us into the sea. There was so to speak no level of temper in between. But on the whole he was fine to deal with. I never experienced him negatively, I knew that those changes in mood that Jack had was connected to his person. But of course I had to take the blows. I made it clear to Jack that: "Whatever you do, don't jump on any of the technicians, if you have something to say, bring the matter to me" and he really did that. But I know that on some occasion when someone came into town Jack called them into his office. At one occasion I remember he called 'Janne' Gunnarsson into the office and he started to doubt something but then Jack realized that it was about to go wrong so instead he put his hand on his shoulder and told him: "Damn; what a terrific job you did Janne". So he was a funny person to work for.

**Top class Anorak:** Yes, a colorful person. Maybe there is a need for such a person to start a radio station like that.

**Ove:** Yes, I really believe so too. There were funny episodes that happened in the headquarters on Kammakargatan. I must say that everyone that came into the office was really impressed because it was an incredible outfit with the studios and the equipment that did not even exist elsewhere in Sweden because they brought over American equipment.

That was also a very good argument, among other things, when you felt a certain resistance when you had asked some lady out, you could always say "lets go down to Kammakargatan so that I can show you the facilities of Radio Nord". That cheered them up a bit. (LOL)

That was the same situation down in Nynäshamn (the tender harbor). Sometimes we could not get out due to bad weather. So when we came down from Stockholm we hoped, particular at Wednesdays and Saturdays, to get bad weather so that the tender could not possibly leave and we had to stay in a hotel in Nynäshamn. Then if that was a dancing evening we could tell the ladies that we worked on the radio ship to get them interested.

**Top class Anorak:** Can you tell us something about the plans to broadcast on FM?

**Ove:** Oh yes, that was particularly 'Janne' Gunnarsson who worked on a power amplifier. I was in contact with Rohde & Schwarz as I had been working for them earlier, or rather "Elektronikbolaget" as they were representatives for Rohde & Schwarz. So I contacted Rohde & Schwarz whom by the way delivered a lot of equipment to the telecommunication authorities. I went over to talk to them when I was on shore leave and told them that we wanted to come out on FM and asked them what they could offer. It turned out that they had a small exciter that could be delivered with an amplifier of 100 watts and it was possible to set it anywhere between 88 and 108MHz.

So what we needed to build was a power amplifier and then we had everything in our possession. This power amplifier was ready; the antenna was waiting at Allgon Ltd [antenna manufacturer] in Åkersberga [part of Stockholm] with all the gyros ready. They had calculated that we were going to pump out something like 100 to 150kW over the Stockholm area probably as far as Enköping (distance 120km) and maybe longer. But they (the politicians) stopped us before it was completed. I was trying to convince Jack about FM a long time but that was just the last weeks that he started to understand that it had been a mistake not to try it on FM. Then the politicians could not use the argument that we interfered with other stations. They claimed that we were interfering, but we never did. The authorities lie as much as everyone else. If we just had come out on FM in an earlier stage, but hindsight is a wonderful thing.

**Top class Anorak:** What was that about stabilizing the antenna with gyros?

**Ove:** I am not sure what kind of solution they had. What I heard was that the antenna was to be held stable in all directions. We asked if this was really possible and they told us that it was fast enough. Of course it could not compensate extremely fast movements but I believe the ship rolled not that much and then the gyros should hold the antenna horizontally and in the right direction.

**Top class Anorak:** But was that not also about plans to transmit television? There were such planes too.

**Ove:** Well, with that I was not involved at all. But I regret that I did not contact Allgon and asked what happened to that antenna later.

**Top class Anorak:** How high and where was that antenna supposed to sit and was it to be on a separate mast?

**Ove:** It was supposed to sit high up in the existing mast. I checked that with the American antenna expert John Mullaney.

**Ove:** With those big Continental Electronics transmitters, before we got everything in a working order on the ship the tuning changed as I told about before. Then there was interlocking on those huge doors, those were almost as panzer doors. There was a safety circuit so it was not possible to transmit with the doors opened. But of course we circumvented that by placing a wooden wedge and then we could transmit with the doors opened. The reason was because all of a sudden something in the hull changed, some steel plate moved somewhere and then the tuning changed. We had fitted Bakelite knobs to the variable vacuum capacitors inside the transmitter and then we could adjust the tuning without going off air. We made it our ploy never to go off air. The only time as I remember that happened was at that occasion I told about when the generator bolted off in speed. The voltage rushed up from 220 volts to for sure 360 volts before the big bang, the final tubes and everything went dead. This happened at two occasions and then they got tired of that Alice Chalmers motor and they got hold of an Albin motor instead and that was a god choice. I remember that we were helping one another; it is also an old sin, because this Alice Chalmers motor was tipped over the gunwale. Everybody was so happy to get rid of it! It did not work in the rough sea as they were constructed to sit stable in a tractor or something.

**Seve Ungermark (ex-newspaper man RN):** Let me say this about the backers. Murchison was the real wealthy; he had a lot of money. He was the fourth richest family in the United States and then when he later went bankrupt that was the largest bankruptcy ever in the American history.

**Ove:** So, he was a real gambler.

**Seve:** But the bloke that I really would like to meet was Gordon McLendon because he was really a huge celebrity in the American radio industry. I did not realize that at that time. He made radio history. There is a very interesting biography about him. If you want to read something about McLendon then I can recommend my site at <http://www.ungermark.se/>. But may I ask you Ove, did you follow with the Bon Jour over to England directly after the closure of Radio Nord?

**Ove:** No,,, I came over to England one year later. I signed off from Radio Nord with everyone else. I took with me my radio gear but unfortunately I left everything else. The only thing I took with me was those files that I later cleaned out. I had all those memos from Jack and unfortunately I throw them away later. Because five or six years back I stood there in the basement and I had use for some binders and I looked at those with the Radio Nord or Radio Caroline labels on and I asked myself "Who the hell is interested those old stories?" So I was sorting out something like four binders and I took the contents and throw it away and kept the binders (LOL).

**Seve:** Watch how happy these boys around here are!!

**Top class Anorak:** But you maybe saved two folders at least?!

**Ove:** About Caroline I have almost nothing left, but from Radio Nord I have still a little and that I lent to Lasse Nestius and he promised solemnly to hand it back a week later, but that is two years back! But as a matter of fact, I will call him.

**Seve:** But what happened later, how long did you stay with Radio Caroline?

**Ove:** With Radio Caroline I stayed almost for two years. The idea was to come over and help them get started. I shifted duty as chief engineer with 'Janne' Gunnarsson, but then 'Janne' went home,,, he basically had the mentality of an Englishman with his dry humor and could directly be supposed as an Englishman. But for some reason he did not enjoy it, I really do not understand why.

So I had to find a new bloke to replace him. Then Ronan O'Rahilly felt the pressure, so every time I had a shore leave I got to go around to the office to have a chat with Ronan and so on. So he offered me a double salary if I stayed, because he was worried that I also wanted to leave. No one had the same insights, because those that assembled the equipment on Caroline were Carrington. He had a company and worked earlier on the BBC and had helped BBC to get started with the first live broadcasts building studios and so on. A very capable bloke, but he had not any skills about measuring the antennas, not those parts and could not retune the transmitters to change frequency and all that. So Ronan felt the pressure and offered me a good salary; a very good salary; and that was paid to a bank account in Lichtenstein (LOL). Because the checks could in the beginning come from Ireland; they could come from Luxembourg; they could come from Lichtenstein and from all possible kind of places (LOL). So he had evidently associates everywhere. But it worked very well with Ronan. He was a strait fellow, if there was something he did not like he said so, like "That we must grab and change".

I will never forget the time I was called down to London about half a year before I quit. You see, my deputy got ill and they sent up the fellow that was chief engineer on Caroline South to replace him. And when he came up there, he discovered that that ship was not managed technically as a radio ship should be done. He got really concerned. So when he returned, he reported how cruelly mismanaged the north-ship was. "In that way, it may just not be allowed to be done!" Because as an Englishman; everything must go by the rulebook. Further more, earlier he was working on the BBC. So, the book of rules was not to be forgotten!

Every evening on the south ship he had introduced a rule. As you know there was a key to the power supply of the transmitter that was being turned to start it. He took out that key and placed it under his bed pillow and he got up in the morning to start the transmitter. But I had arranged so that the DJ on duty did that. I think we had something like seven different meters on the transmitter and I did a little mark with a pen on them. So, if the meter was on that mark everything was OK. If some meter was not on the mark, the DJ woke up the technician on duty.

I felt that it was unnecessary to wake up a technician just to turn on a switch that everyone could easily do. Further more there was a delay, so if you turned on High Power to early before the green lamp lit, nothing unexpected happened because of the delay starting things correctly anyway. So I saw no danger with that. But of course I came from Sweden and I experienced that in those days there was a very large difference between Swedish and English technical culture. "In England they followed the Book of Rules!" Maybe that was how it was done on Sveriges Radio too; I do not know (LOL). I was a like that, the main thing was that it worked and then if it is not according to the rulebook; so what?

Then I was called down to London where he had reported to the board. He had sent a report to the board and also given one to Ronan. So I was called down to London and came into the boardroom and there sat those seven grim looking gentlemen and looked at me. I saw that sword hanging in the air. I understood that there was something serious coming and I had no idea what it was about. They told me to sit down and I got something to drink. They told me that they had heard from,,,, well I do not remember his name now. They had got a report about the disgraceful state on the north ship. How could that go on in such a way that I allowed a discjockey to turn on the transmitter? I told them exactly how that was and then they just started to burst out with laughter and then it was a thing of the past. So they took that in the correct way and that I felt was amazing. I also explained that many of the DJs on that ship were also interested in the technology and we cooperated and solved different problems. So it took not a long time before, maybe after the first fourteen days, before we abandoned

this studio and control room concept and they operated everything themselves. We did some modifications to make it work smoother. Well, apart from that we had to soundproof the control room, because we had only soundproofed the studio at first.

I have one memory about a thing that happened to me and 'Janne'. That was at the time we started the transmissions out of London and a lot of journalists came onboard. We were standing in the studio watching the DJ broadcasting. We had placed out ashtrays because in those days everyone was smoking. Then we saw one of those English journalists that just took his cigar and let it drop on the floor and then mashed it with the foot! We looked at one another and we thought "This is just not true! Indoors! The man is not standing outdoors! He was stepping out his cigar indoors!" So we throw him out! (LOL) I mean even if the ashtray was one meter away, just a step away and he did not use it, he just dropped and stepped on it! And we had spent a lot of effort to make everything in order so it looked tidy and nice when all those media people came to visit us. So he was showed out with firm hand and we closed the studio door and we told them: "we have technical work to do, so you have to stand on the outside and look through the portholes!" (LOL) Oh well, there was many funny episodes.

About Radio Nord I think that Seve Ungermark has a lot more to tell us about. I have experienced all this from a more technical angle. We had a lot of fun together. Do you remember this Certina time spot with "The time is now ,,,," and we had to say the time live in the recorded programs? That made us aware that there was a need for a door between the dining room and the studio. Particularly in the winter when there was ice on the deck and we rushed out on the deck from the dining room and it was not possible to stop at the studio door. Sometimes I can understand that Jack was wondering because he had always the radio on to the station wherever he was. That was to have a check on what was going on. But I think he accepted and understood that here was a gang of young boys, because on the technical side we were young. Those blokes that came from the Swedish Telecom who was supposed to take care of the transmitters and was sent away already in Copenhagen. Those were some elderly men that did not at all fit into the American pattern. They demanded conditions so that the working hours followed the book of rules. A certain amount of working hours had to be followed by so and so many off duty hours and one and the other. So the Yanks just asked them to leave.

During the whole Radio Nord era we had a terrific collaboration with the Swedish Telecom and with the Royal Technical University KTH and certain parts of Sveriges Radio and not to forget the customs regarding the "Drop" and all that. (The "Drop" was Radio Nord's system to fly out smaller supplies to the ship using a floating canister that was dropped into the sea from the plane)

I had a lot of contacts with the Swedish Telecom, because they supervised the stability of our frequency so we were not drifting off channel. So I got the information via our Pelle Lönndahl, something like: "You need to adjust 300Hz upwards!" The telecom authorities had the instrumentation needed to monitor this; we did not have those instruments. Likewise, during the construction period we got a lot of help from the Royal Technical University KTH. Because all the measuring equipment we used was borrowed from the KTH in Stockholm. Or rather we hired them from KTH, so we had an incredible advanced instrumentation like the Hewlett Packard's top models and one had to be very careful using them. And I know that one expensive item was costing Radio Nord something like 20.000 to 30.000 SKR, because there was those horrible steep stairs down to the transmitter room and on the way up someone dropped it; never again possible to restore to its original condition.

Further more, if we needed spare parts we made a phone call to Sveriges Radio SR; to certain contacts one had over there and the same was possible with KTH and the Telecom. Often they knew already what it was about because they had a certain "check" on what we did. (LOL)

I remember that we monitored the teleprinter services of the news agencies. Was that during your time Seve?

**Seve Ungermark:** That was later, because I quit already at midsummer 1961. But did that work so well?

**Ove:** Oh yes! The television program was only one channel and if the program were not so interesting, then instead of doing nothing the technicians could as well sit and operate the receiver and search the transmissions of the news agencies. And we had boards on the wall where all the teleprinters were listed. On several occasions I myself sat there and found interesting stuff that I gave to the newsreader to use as a newsflash. Of course such things irritated Sveriges Radio.

**Seve:** I think you exaggerated a bit in your speech when you said that Radio Nord was two or three days ahead of Sveriges Radio.

**Ove:** OK; I can agree on that.

**Seve:** It is enough with half an hour ahead of others. As a matter of fact, I was on board on the ship on the 16<sup>th</sup> of April 1961 when Gagarin flew around the world. And in the morning Sveriges Radio had no news at all and because of that we could be first. I picked that one up on the BBC. Around the clock news on the monopoly radio came first after the murder of Olof Palme back in 86'

Of course; it must have rotated in the head of McLendon when he met Kotschack and was told about the existence of a well civilized country with a lot of radio receivers but with no commercials at all and no light music on the radio except from some hour now and then. Of course he was excited to jump into such a project. He must have been expecting to earn a lot of money.

And when you said that Kotschack had a short temper it is of course correct no question about that. But I think that this got worse during the Radio Nord time because of his frustration that this project did not give the Americans the money that they expected. I want to claim that the large advertisers never came; just smaller advertisers and you know how much barter there was. Sometimes the office at Kammakargatan was full of Westinghouse refrigerators that were standing in the corridors. That must have been very frustrating to have a damn good business idea and not be able to make it work.

**Ove:** Those parts I did not realize about. Now that you explain this I realize, OK that must have contributed to his frustration. In those days all that was into my head was to make the station work well technically.

**Seve:** Both Kotschack and the Americans never understood the political situation in Sweden. They thought that if they did it well everyone would think it was so good and applaud. It is not like that in this country, at least not in those days.

**Ove:** If we had started two years later they had not been able to stop Radio Nord. What is your opinion about that?

**Seve:** I do not understand what you mean about that and I do not agree at all. Because three years later very many people had have FM receivers and was used to a better audio quality of the music and then we would not have that large coverage. The point about Radio Nord was to cover as far into the country as possible and on medium wave that everyone had on their car radios. There; all of a sudden people could listen to music all around the clock as we had started with all night transmissions, as you remember. I think medium wave was a very good thing, even if it just happened like that.

**Ove:** We experienced when we got the FM coverage data from Allgon antennas that we would cover a large part of the Mälaren valley and cover a large part of the population.

**Seve:** Well then it would be more like a local radio with less commercial basis.

**Ove:** Yes, but we could simulcast.

**Seve:** As a said, the project was doomed from the beginning, but Kotschack did not understand that and so did the Americans even less. The more I have been thinking about it, the more I have realized that the project was sentenced to death from the beginning in Sweden due to the politicians and due

to the owners of the newspapers. The newspapers were scared to death about getting competition on the advertising market. They did just not want to have any of it. I remember all those advertising agencies that came around down to Kammakargatan and said it was all very interesting. They wanted to test it just a little, but they did not recommend any of their larger costumers. Then there was the chat among the politicians, that there would be no orders to be expected from the state for those companies that did advertize over Radio Nord. In that way they scared off all the big ones.

**Ove:** Yes, you are correct about that. It is very good that you participate here to complete matters. Because you have seen and experienced other aspects, as you got other insights then I have got. I had nothing to do with the commercial side of it.

I experienced back then in the beginning, even later when I came back from Caroline; that I had just been on a job. Maybe it was somewhat different and a fun job. Many close to me and later my sons (as I said earlier) wondered why I did not asked for a signed photograph or something from all those pop stars that I met. But I was not a bit interested; I was only interested in jazz then. So when we closed early during the winter I sat listening to jazz music. I had convinced some of the DJs to bring out some records to me as well (LOL). I was a New Orleans jazz enthusiast. Of course I was there when they came out and I met most of those celebrities; or rather I saw them.

I wanted to develop Caroline in the same way as Radio Nord ship that had worked as a clock the last half year. I mean around the clock in those days on a little boat in the Baltic and got service for six hours a week. I think even on a land-based station that was a good achievement. That was our objective to do a good technical work.

I think I mentioned earlier that we learned from the Yankees how to compress the audio very hard with a limiter so that we lifted up the lower levels. One day we heard from Jack Kotschack and he wondered about the modulation because some wise guy had told him that we modulated too hard so that there was no space to take care of those tops that came. Of course those tops that came were cut. The level was raised and never falling low as the limiter kept the modulation between 80 and 98% and over 98% it was cut away and that under 80% it was raised up. So it got quite compact. If that was classical music this was no good to use such type of modulation, but it worked well with lighter music and particularly pop music as that was already compressed.

Reminds me; when in London I was invited to those large recording studios. When I had time off from work I visited those places where they made all the famous recordings. I was also over to the BBC where I was well received. We went out to have both lunch and dinner together as they got curious. I remember visiting a studio where they made a recording of one of those famous bands, I don't remember which. When the recording was done they put it into a machine and pulled it up 30%. I asked "What is that?" and they said "for distortion"; I said "excuse me?! Do you add on distortion?" they said "Yes! the kids want it that way" (LOL).

**Top class Anorak:** The compression made you reach longer.

**Ove:** Certainly! That made this really the big thing. When we modulated so hard and people listened in the car they experienced while tuning over from Sveriges Radio to Radio Nord that they had to throw themselves on the volume knob and turn it down because it was roaring out of the speakers.

On Caroline we placed the limiter in the control room and on Radio Nord it was placed in the transmitter room. So we had to go down there to make changes and that was not so often.

**Top class Anorak:** But that could not have been any hard limitation?

**Ove:** It was hard limitation!

**Top class Anorak:** It did not sound so hard, it worked well.

**Ove:** Of course, I know that we did experiment with time delays; if it was not correctly adjusted it

was sounding strange. As a ham I often get remarks that I am very hard and got a somewhat sharp modulation and not using any bass. That is because I learned from Radio Nord and Caroline that the bass steals a whole lot of power and as I see it the aim is to get the message through and I am not interested to have hi-fi audio on 80-meters amateur radio. Then if I cut hard in the bass that is something they can live with.

**Top class Anorak:** I think it gave also an impression that there was a good bandwidth, which there were not so good conditions for with that short antenna.

**Ove:** Yes, the antenna gave us a rather narrow bandwidth; I do not remember the exact figures.

**Top class Anorak:** About the antenna, should it not be higher for that low frequency something like a quarter of a wavelength? So did you use a loading coil to make it possible to use a shorter mast?

**Ove:** Yes, from the output of the transmitter on the outside we had a box and on top of that we had a corona shield and inside this box where the loading coils housed. I do not think that this box contained any vacuum capacitors; no it did not that was just a loading coil. That was silver plated coil and inside of that there was a silver plated copper braid that one had to reattach to another position inside this coil. In the beginning we had to adjust this coil every time we went off air and measure so that the antenna was in resonance and so that the transmitter saw fifty ohms. That was the important role of this coil, that the transmitter saw 50 ohms. If there was a too large difference the transmitter did not see 50 ohms and tripped off. With this we had some problems in the beginning. We also gambled with adjustment of the time delays of the cutback of the transmitter to maximize how far we dared to let it go before it tripped off; before things start to happen inside the transmitter and sometimes something happened. I remember that we kept the cabinet doors open while on air for tuning the transmitter and Archie Burger the American engineer introduced the rule that never ever do a job in the transmitter without keeping one of the hands in the pocket. Never use more then one hand and the other in the pocket to avoid grabbing anything else by mistake with that hand. I do not remember how high anode voltage was on the end stage. But that was a lot; I think it was something like 7.5kV.

**Top class Anorak:** At some occasions you jumped in and did the news reading as well as your technical duties. How did that work out?

**Ove:** I do not remember exactly but that may have been during the emergency situation. That is correct I did some news reading. On a ship like that out at sea you had to jump in and help with a lot of things. There could be a problem to start the anchor winch and I had to help cranking that up and things like that.

**Seve:** But towards the end everyone did any duties like that but we did not in the beginning. What I remember from the beginning was those insulators on the stays. I remember in the early days during the test transmissions in February and during the start in Mars; when you turned on the transmitter there was a big bang and we have to change the insulators. And then we change to larger and larger insulators. Can you explain to me why this was not OK from the start? Did you not understand what was required?

**Ove:** That was because of this very low antenna mast coursing such enormous high voltages and currents. This American John Mullaney, he was the expert and he had constructed a pair of broadcasting ships that the Americans used to broadcast the Voice of America. I think that one of then was broadcasting in the eastern Mediterranean and the other somewhere else. During this job he came up with this idea to build a mast with limited height and with radiation at low angles.

[Abrupt end of the recording at 01:46:42]